SUMMARY

The Tahoe Transportation District (TTD) is proposing the US 50/South Shore Community Revitalization Project (project), which is designed to improve the Tahoe Basin's transportation network while addressing affordable housing, community revitalization, and mobility needs, and contributing to environmental gains. The project has been contemplated in regional and local planning documents for decades and is one of the region's largest capital improvement projects. As proposed, the project would realign U.S. Highway 50 (US 50), enabling the creation of a pedestrian-oriented, "Main Street" through the middle of the existing tourist core, where the highway is now located. Walking, bicycling, and reliable transit would be attractive and safe transportation options and community gathering places would be available in the tourist core. Commercial core revitalization is intended to increase visitor spending and catalyze, adjacent private construction investment.

The project is not only intended to revitalize the South Shore of Lake Tahoe, but would also help implement the adopted Lake Tahoe Regional Plan and Regional Transportation Plan/Sustainable Communities Strategy by enhancing mobility in support of existing and planned projects, including the:

- Nevada Stateline-to-Stateline Bikeway, a shared-use path system that will ultimately extend the length of the Nevada side of the lake;
- Harrison Avenue Improvement Project;
- US 50 Water Quality and Bicycle and Pedestrian Improvement Project – Ski Run to Trout Creek;
- Linear Park Multi-Use Trail;
- Van Sickle Bi-State Park;
- transit shelter and service improvements; and
- proposed, future South Tahoe Greenway share-use path and Lake Tahoe Passenger Ferry Project.

TTD, Tahoe Regional Planning Agency (TRPA), and Federal Highway Administration (FHWA) are the lead agencies preparing a joint environmental document for the US 50/South Shore Community Revitalization Project. The environmental document is an environmental impact report (EIR) for TTD pursuant to the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.); an environmental impact statement (EIS) for TRPA pursuant to the Tahoe Regional Planning Compact (Public Law 96-551) and 1980 revision (Compact), Code of Ordinances, and Rules of Procedure; and an environmental impact statement (EIS) for the FHWA pursuant to the National Environmental Policy Act (NEPA) (42 U.S. Code [USC] Section 4321-4347), the Council on Environmental Quality (CEQ) Regulations Implementing NEPA (40 Code of Federal Regulation [CFR] Section 1500-1508), and FHWA Environmental Impact and Related Procedures (23 CFR Section 771). TTD is also the project proponent.

S.1 PROJECT LOCATION AND SETTING

The project is located along US 50 from approximately 0.25 mile west of Pioneer Trail in South Lake Tahoe, California, to Nevada State Route (SR) 207 in Douglas County, Nevada. Existing US 50, also called Lake Tahoe Boulevard, bisects the tourist core areas of Stateline, Nevada and South Lake Tahoe, California. It is one of the most densely developed areas within the Lake Tahoe Basin. Currently, the majority of traffic moving through the tourist core uses US 50, with increasing numbers of vehicles bypassing the highway and

cutting through the existing Rocky Point neighborhood on local roads, west of Heavenly Village Center. Within the project site limits, US 50 is a four-lane arterial with a continuous two-way left-turn median lane that transitions to dedicated left-turn pockets at major intersections. On the western side of the project site, Lake Parkway and Montreal Road (which is the continuation of Lake Parkway to the south from Heavenly Village Way) are two-lane roadways (one lane in each direction). Exhibit S-1 shows the boundaries of the project site, which contains the transportation improvements contemplated in one or more of the project alternatives evaluated in this EIR/EIS/EIS.

The study area for this EIR/EIS/EIS (see Exhibit S-1) is a larger area surrounding the project site that is intended to capture the extent of potentially significant environmental impacts that may occur as a result of one or more of the alternatives. It is located between the foot of East Peak on the southeast and the Lake Tahoe shoreline on the north. To the east and west, the study area extends approximately one block beyond the project site boundary. The terrain within the study area slopes gently from the southeast toward the shore of Lake Tahoe. The study area contains the entire tourist core, including the resort-casinos of Stateline and Heavenly Village of South Lake Tahoe; commercial land uses to the east and west along US 50; residential and commercial land uses north of the tourist core; portions of Van Sickle Bi-State Park and adjacent forest; and the Rocky Point neighborhood.

S.2 PURPOSE, NEED, AND OBJECTIVES

NEPA requires disclosure of a project's purpose and need. CEQA requires a description of the basic objectives of a project. TRPA does not have specific requirements for a project to identify the purpose, need, or objectives of the project. This section provides the information necessary to present the purpose and need and basic project objectives of the proposed US 50/South Shore Community Revitalization Project.

One of TTD's operating principles is to develop value-added projects for the communities in which they work. In May 2016, consistent with TTD principles and in response to public feedback on the project, the TTD Board adopted project principles that formalize their commitment to providing replacement housing, including deed-restricted affordable and moderate-income housing, for displaced residents. This commitment is reflected in the project objectives below.

PURPOSE

The overall purposes of the US 50/South Shore Community Revitalization Project are described as follows:

- improve the corridor in a manner consistent with the Loop Road System concept;
- advance multi-modal transportation opportunities;
- improve vehicle, pedestrian, and bicycle safety;
- improve the environmental quality of the area;
- reduce traffic congestion;
- improve safety for residents, pedestrians, and bicyclists in local neighborhoods;
- implement regional and local plans, including the Lake Tahoe Regional Plan and Regional Transportation Plan/Sustainable Communities Strategy;
- enhance visitor and community experience; and
- promote the economic vitality of the area.

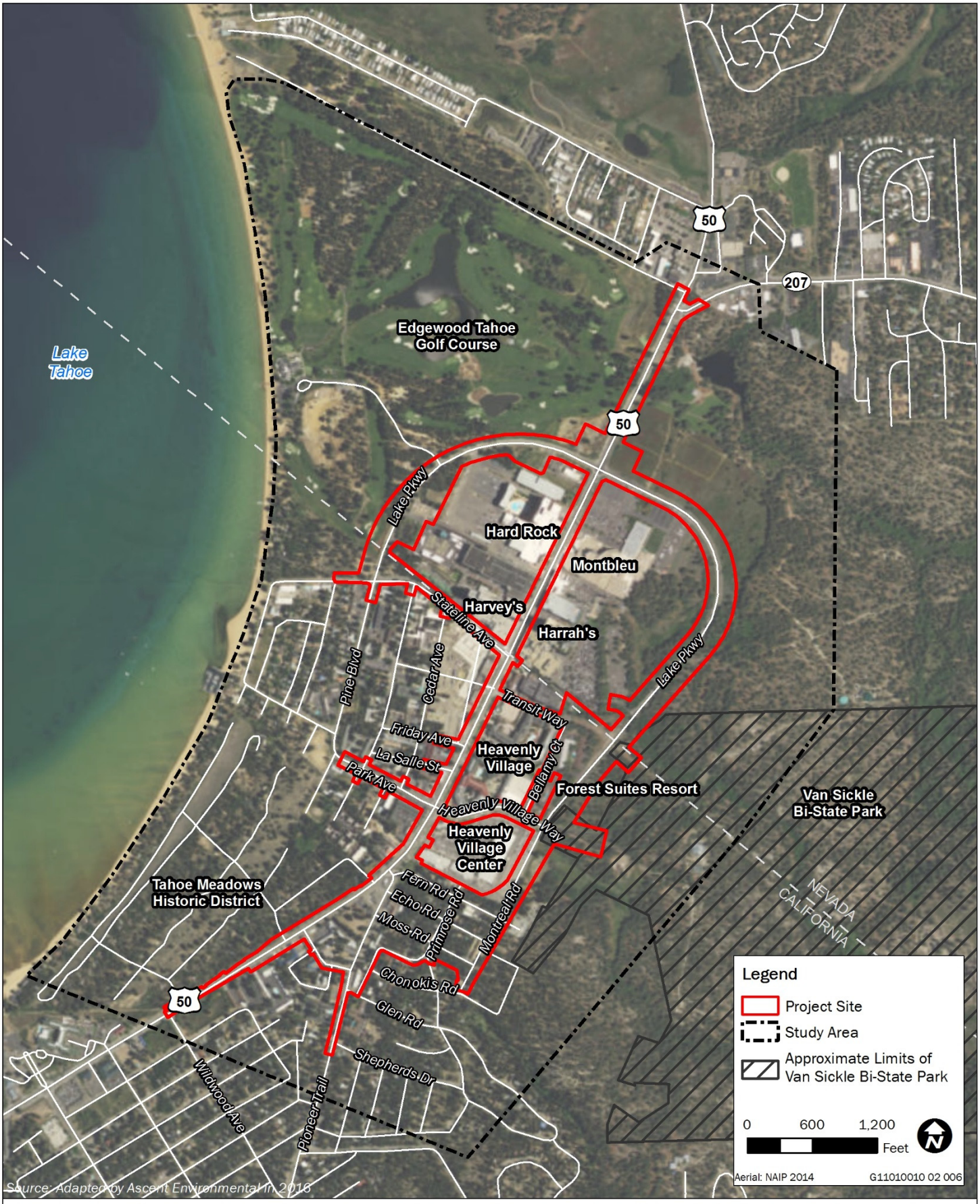


Exhibit S-1 **Project Site and Study Area Location**

Need

The purposes of the project would fulfill the following specific needs:

A. *Loop Road System concept.* Article V(2) of the Tahoe Regional Planning Compact (Public Law 96-551), 1980 (Compact), requires a transportation plan for the integrated development of a regional system of transportation within the Tahoe Region. The Compact requires the transportation plan to include consideration of the completion of the Loop Road System in the States of California and Nevada. Improvements are required to the corridor to meet the intent of the Loop Road System concept.

B. *Multimodal mobility and safety.* Ongoing and proposed resort redevelopment in the tourist core area has increased pedestrian traffic, creating a need for improved pedestrian safety, mobility, and multi-modal transportation options. Improvements to pedestrian facilities, bicycle lanes, and transit are needed to connect the outlying residential and retail-commercial uses with employment and entertainment facilities, including hotels and gaming interests. Currently, there are no bicycle lanes on US 50 through the project area, and sidewalks are either not large enough to meet the increased demand, or do not exist. These issues adversely affect pedestrian and bicyclist safety and the visitor and community experience of the area. These needs could be addressed through development of a complete street—a street designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities—in the main tourist corridor of the Stateline area. Injury and fatality accident rates for pedestrians and vehicles through the project area are 14 percent above the statewide average rates for the latest three-year period of available data (Caltrans 2016, NDOT 2016).

   The roadways within the project site also have inadequate facilities for pedestrians, bicyclists, and vehicles. The inadequate facilitates detract from community character and quality of life of both residents and visitors. The poor transportation facilities and pedestrian/bicycle environment create constraints to the economic vitality of the study area (TTD 2013:3). There is a need for enhanced connectivity, transit use, walkability, and bicycle use in the study area to reduce dependence on private automobiles.

C. *Environmental quality in the area.* Environmental improvements are needed in the area to help achieve TRPA's adopted environmental threshold carrying capacities (thresholds), including for water quality and air quality. Paved roadways are the primary source of the fine sediment particles that are impairing the clarity of Lake Tahoe (Lahontan Regional Water Quality Control Board [RWQCB] and Nevada Department of Environmental Protection [NDEP] 2010). Improvements to stormwater runoff collection and treatment facilities are needed to meet TRPA, NDEP, and Lahontan RWQCB regulations and requirements for protecting the water quality and clarity of Lake Tahoe. As supported by analysis in the *Lake Tahoe Regional Transportation Plan and Sustainable Communities Strategy Final Environmental Impact Report/Environmental Impact Statement,* reduction of vehicle congestion and numbers of vehicles on the roadway through enhanced pedestrian and multi-modal opportunities and opportunities for compact, mixed-use development in the tourist core is needed to provide for a reduction in mobile-source greenhouse gas emissions (TMPO and TRPA 2012:3-57 – 3-61). Landscape improvements are needed to enhance the scenic quality of the project site, to facilitate compliance with TRPA's scenic thresholds, and to enhance the community and tourism experience. Currently, the three TRPA roadway travel units in the project site (Roadway Travel Unit #32, Casino Core, a portion of Roadway Travel Unit #33, The Strip, and a small portion of Roadway Travel Unit #45, Pioneer Trail [North]) are not in attainment and are targeted for improvement in the Scenic Quality Improvement Plan and other adopted agency plans that apply to the area (TRPA 2016).

D. *Minimize congestion.* Study area intersections and roadway segments are currently operating at marginally acceptable levels during a typical summer PM peak hour (LOS D) (Wood Rodgers 2016:17); however, higher traffic during holidays, special events, and certain summer and winter peak periods results in long vehicle queues at upstream intersections, long delays throughout the tourist core area, and undesirable traffic operations. The study area is projected to experience substantial increases in

traffic congestion in the tourist core in the future that would result in LOS E or worse conditions during normal summer peak hours.

E. *Neighborhood traffic operations.* Neighborhood "cut-through" traffic occurs as drivers seek ways to avoid the congestion during peak periods in the summer and winter months. By avoiding the congested highway, drivers find a faster travel route around the tourist core outside peak periods. Traffic volumes at the study area "gateways" have increased approximately 20 percent since 2011, while traffic within the tourist core area has slightly decreased (Caltrans 2016, NDOT 2016, El Dorado County 2016), indicating that vehicles are using the neighborhood streets to bypass the core. The cut-through vehicles cause congestion in residential neighborhoods and have been observed to travel at high speeds, which endangers local residents and changes the character of the neighborhood. The project is needed to improve safety and operations of local roads through neighborhoods by providing roadway changes that reduce congestion and provide a more efficient travel route in the tourist core area for through traffic.

F. *Regional and local plans.* The project is needed to implement adopted regional and local plans for the area, including the Lake Tahoe Regional Plan, Lake Tahoe Regional Transportation Plan/Sustainable Communities Strategy, Lake Tahoe Environmental Improvement Program, Tourist Core Area Plan, and South Shore Area Plan. The transportation improvements and water quality improvements included in the project are identified in these plans.

G. *Redevelopment and revitalization.* Another project purpose is to create opportunities for redevelopment and revitalization of the study area. Currently, the study area is more conducive to vehicular travel than other modes, which presents limitations to walkability and bicycle use. Improvements to the existing US 50 through the tourist core to create a safer environment for pedestrian and bicycle travel are needed to make the study area more inviting for residents and visitors to patronize existing businesses. Additionally, a portion of the study area is located within the City of South Lake Tahoe Tourist Core Area Plan (TCAP). One of the guiding principles of the TCAP is to establish a diverse and concentrated mix of uses that create a strong, lively market (City of South Lake Tahoe 2013:4-1), which would help achieve the vision for revitalization of this area.

PROJECT OBJECTIVES

Recognizing the needs for and fundamental purposes of the project, it would be intended to achieve the following basic project objectives identified by TTD:

- reduce overall vehicle delays through improved motor vehicle mobility on the state highway system, including for commercial access and a better resident and visitor experience;
- decrease dependence on the use of private automobiles;
- reduce the traffic volumes through the tourist core and "cut-through" traffic in adjacent neighborhoods, and develop a "complete street" for all users, including bicyclists, pedestrians, transit, and vehicles;
- improve visual and environmental conditions within the tourist core;
- improve connectivity, reliability, travel times, and operations of public transportation modes, including increased mobility and safety for bicycles and pedestrians and enhanced public access to Van Sickle Bi-State Park;
- make public transportation more effective with better visibility, connectivity, reliability, and travel times;
- comply with TRPA regional level-of-service criteria;

- facilitate the creation of a safe and walkable district that enhances pedestrian and bicyclist activities and safety and improves the City of South Lake Tahoe's and Douglas County's competitiveness with other regional and national tourist destinations;
- create gateway and streetscape features that create a sense of place, align with complete streets principles, are reflective of Lake Tahoe's natural setting, and provide effective way-finding;
- provide opportunity for redevelopment and revitalization within the project site;
- provide replacement housing for all residential units acquired for highway right-of-way purposes before groundbreaking for transportation improvements; and
- result in no net loss of housing in the South Shore area.

S.3 SUMMARY DESCRIPTION OF ALTERNATIVES

Five project alternatives are under consideration for implementation, consisting of four build alternatives (Alternatives B, C, D, and E) and one no-build alternative (Alternative A). Three build alternatives (Alternatives B through D) would realign existing US 50 from a point just west of the Pioneer Trail/US 50 intersection in California to the point where Lake Parkway meets US 50 in Nevada. By doing so, existing US 50 would be converted to a thriving "Main Street," a key objective of the project. In addition to the highway realignment, all of the realignment alternatives (Alternatives B through D) would also include a new pedestrian bridge over realigned US 50 providing a new walking and bicycling connection between the tourist core and Van Sickle Bi-State Park, enhanced bicycle and pedestrian facilities and connectivity, enhanced transit features, environmental improvements, replacement housing and relocation assistance for residents and businesses that would be displaced by realigned highway construction, and the potential for new mixed-use developments within the study area that could accommodate those that would be displaced. One build alternative (Alternative E) would construct a raised pedestrian walkway over existing US 50 alignment within the portion of the tourist core between the resort-casinos, rather than realign the highway.

Alternative A: No Build (No Project or No Action)

With Alternative A there would be no improvements to existing US 50, Lake Parkway, or other roadways within the project site boundaries. No bicycle, pedestrian, or transit improvements would be made. The current road alignment and lane configuration would remain the same.

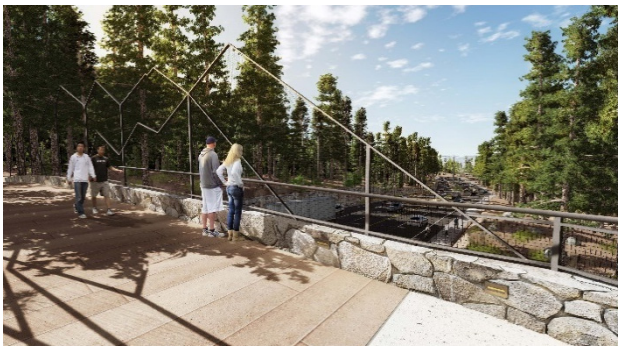
Main Street Concept Illustration

Alternative B: Triangle (Locally Preferred Action)

Alternative B would construct a realignment of US 50 to the southeast of existing US 50 from just west of the Pioneer Trail intersection in California to Lake Parkway in Nevada. Realigned US 50 would begin at a relocated Pioneer Trail intersection located to the west of the existing intersection, and proceed south along existing Moss Road. It would then turn east onto the Montreal Road alignment, passing behind (southeast of) the Heavenly Village Center shopping complex, and continuing along the existing Montreal Road and Lake Parkway alignments before ending at a new two-lane roundabout at the existing US 50/Lake Parkway intersection. This EIR/EIS/EIS also contemplates an option that would retain a signalized intersection at US 50/Lake Parkway, instead of a roundabout. TTD has designated Alternative B as the "locally preferred action," because TTD believes it best meets the objectives of the project and it emerged as the most supported alternative following public scoping.

ROAD NETWORK CHANGES

Realigned US 50 would have four 11-foot wide travel lanes, 5-foot wide shoulders, and turn pockets at major intersections and driveways. New signalized intersections along realigned US 50 would be located at Heavenly Village Way and the driveway entrance to Harrah's. The existing right-of-way of the segment of US 50 between Pioneer Trail and Lake Parkway—the new Main Street—would be relinquished to the City of South Lake Tahoe in California, and Douglas County in Nevada. Realigned US 50 would become Caltrans and Nevada Department of Transportation (NDOT) right-of-way.



Proposed Pedestrian Bridge to Van Sickle Bi-State Park

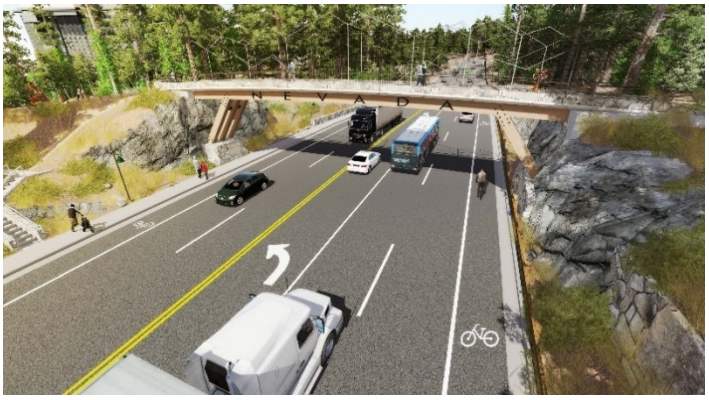
Between Park Avenue and Lake Parkway, the new Main Street would be reduced to one travel lane in each direction, with landscaped medians, and left-turn pockets at major intersections and driveways. Bicycle lanes and sidewalks would be added and/or upgraded throughout the project site. A pedestrian bridge would be constructed over realigned US 50 approximately 250 feet south of the proposed new intersection at the Harrah's entrance driveway near the California/Nevada state line; the pedestrian bridge would connect Van Sickle Bi-State Park to the tourist core.

RIGHT-OF-WAY ACQUISITION NEEDS

The Alternative B realignment of US 50 would require the acquisition of right-of-way. The right-of-way needs would include both partial and full acquisition of parcels within the project site; a total of 99 parcels would be affected by Alternative B. Table 2-1 in Chapter 2, "Proposed Project and Project Alternatives," of this EIR/EIS/EIS summarizes the total number of affected parcels, by state. Table 2-2 provides a summary description of the types of uses and number of units affected for those parcels listed as full acquisitions in Table 2-1. A full list of specific parcels affected by Alternative B (and other realignment alternatives) is included in Appendix B. Appendix B also includes exhibits that distinguish full and partial parcel acquisitions the realignment alternatives.

MIXED-USE REDEVELOPMENT SITES

Alternative B includes the redevelopment of three sites within the project site to include a mix of residential and commercial uses. The purpose of the redevelopment sites would be to provide relocation opportunities for dislocated residents and business owners in the immediate vicinity.



Realigned US 50 Near Pedestrian Bridge

Alternative C: Triangle One-Way

The alignment of Alternative C would be the same as Alternative B for the route along existing Montreal Road and Lake Parkway. However, Alternative C would involve one-way travel within the tourist core and on the realigned highway to the southeast. It would reduce right-of-way needs relative to Alternative B, as described below.

ROAD NETWORK CHANGES

Alternative C would split eastbound and westbound directions on US 50 from the Park Avenue/Heavenly Village/US 50 intersection in California to Lake Parkway/US 50 intersection in Nevada. Eastbound US 50 would remain on the same alignment as the existing highway, while westbound US 50 would be realigned

along Lake Parkway southeast of existing US 50. Both eastbound and westbound US 50 would have turn pockets at major intersections and driveways, and would add and/or upgrade bicycle lanes and sidewalks.

Travel lanes along the eastbound and westbound segments would be 11-feet wide. New signalized intersections would be located on westbound US 50 at Heavenly Village Way and the entrance Harrah's driveway off existing Lake Parkway. Caltrans and NDOT would be required to accept the right-of-way along both segments of US 50 for those portions in their respective state, and the City of South Lake Tahoe and Douglas County would need to relinquish the right-of-way along Lake Parkway, Montreal Road, and other local roadways affected by Alternative C. A pedestrian bridge, similar to Alternative B, would be constructed over westbound US 50 near the California/Nevada state line connecting the Van Sickle Bi-State Park to the Stateline area.

RIGHT-OF-WAY ACQUISITION NEEDS

The Alternative C realignment of US 50 would require the acquisition of right-of-way similar to Alternative B. The right-of-way needs would include both partial and full acquisition of parcels within the project site; a total of 97 parcels would be affected by Alternative C.

MIXED-USE REDEVELOPMENT SITES

Alternative C includes the redevelopment of the same three sites within the project site as Alternative B for the purpose of providing relocation opportunities to the dislocated residents and business owners.

Alternative D: Project Study Report Alternative 2

Alternative D is similar to Alternative B in that it would realign US 50 to the southeast of existing US 50 from the Pioneer Trail intersection in California to Lake Parkway in Nevada. The relocated US 50/Pioneer Trail intersection would be further north than the Alternative B alignment.

ROAD NETWORK CHANGES

The realignment of US 50 associated with Alternative D would begin at a reconstructed Pioneer Trail intersection, and proceed east on a realigned highway segment between existing Echo Road and Fern Road. It would then turn north onto the Montreal Road alignment, passing behind the Heavenly Village Center shopping complex, and continuing along the existing Montreal Road and Lake Parkway alignments before ending at a new two-lane roundabout at the existing US 50/Lake Parkway intersection. This EIR/EIS/EIS also contemplates an option that would retain a signalized intersection at US 50/Lake Parkway, instead of a roundabout.

Realigned US 50 would have four 11-foot wide travel lanes, 5-foot wide shoulders, and turn pockets at major intersections and driveways. New signalized intersections would be located at US 50/Heavenly Village Way and the driveway entrance to Harrah's from US 50. The existing segment of US 50 between Pioneer Trail and Lake Parkway would be relinquished to the City of South Lake Tahoe in California and to Douglas County in Nevada. Realigned US 50 would become Caltrans and NDOT right-of-way.

Between Park Avenue and Lake Parkway, the existing US 50 would be reduced to one lane in each direction, with landscaped medians and left-turn pockets at major intersections and driveways, similar to Alternative B. Bicycle lanes and sidewalks would be added and/or upgraded throughout the project site. A pedestrian bridge would be constructed over realigned US 50 near the California/Nevada State Line connecting the Van Sickle Bi-State Park to the Stateline area.

RIGHT-OF-WAY ACQUISITION NEEDS

The Alternative D realignment of US 50 would require the acquisition of right-of-way. The right-of-way needs would include both partial and full acquisition of parcels within the project site; a total of 78 parcels would be affected by Alternative D.

MIXED-USE REDEVELOPMENT SITES

Like Alternative B, Alternative D includes the redevelopment of three sites within the project site to include a mix of residential and commercial uses that could be relocation opportunities for dislocated residents and business owners.

Alternative E: Skywalk

Alternative E would feature a concrete deck over the entire width and length of existing US 50 within the tourist core between a location about 100 feet south of Stateline Avenue and a location near the northern end of the Montbleu Resort (about 450 feet south of Lake Parkway). The deck would serve as a pedestrian "skywalk" facility or pedestrian walkway between the resort-casinos. The width would be approximately 75 feet. The skywalk would be constructed on 4-feet wide columns spaced approximately 20 feet on center running along both sides of the highway for the entire length of the bridge. The purpose of the skywalk would be to enhance pedestrian facilities and separate pedestrians from the highway through the tourist core near the resort-casinos to allow for improved traffic flow. Alternative E would avoid the need to acquire property and displace uses and people in the existing community.

ROAD NETWORK CHANGES

The configuration of US 50 would remain as it is today, except that the signal and at-grade pedestrian scramble between Hard Rock and Montbleu would be removed.

The improvements on Stateline Avenue would be the same as that which would occur for Alternative B.

Alternative E: Skywalk

RIGHT-OF-WAY ACQUISITION NEEDS

Alternative E would be constructed entirely within the existing US 50 right-of-way and would not require any property acquisitions. Alternative E would not displace any residents or businesses.

MIXED-USE REDEVELOPMENT SITES

Alternative E does not include the potential future redevelopment sites associated with Alternatives B through D. Because Alternative E would not displace any residents or businesses, it would not be necessary to provide replacement housing or commercial space as part of this alternative.

S.4 ISSUES SUBJECT TO PUBLIC CONTROVERSY

The State CEQA Guidelines require an EIR to include a list of areas of potential controversy and issues to be resolved.

Based on public input received during the scoping process and the outreach that followed, areas of controversy could include the purpose and need for the project, displacement of existing residents and businesses in the City of South Lake Tahoe, impacts on Van Sickle Bi-State Park, noise impacts in residential neighborhoods, effects on water quality, effects on air quality, and impacts on public safety. Additional project details requested by commenters and an assessment of suggested alternatives to the project are included in Chapter 2, "Proposed Project and Project Alternatives." Appendix A includes a complete list of comments received during the scoping period.

The following are key issues related to the project:

- Acquiring Project Funding
  - TTD has funding to complete the environmental review process and full design (preliminary through final) of the approved alternative. TTD also has some Right-of-Way funds for property acquisition and relocation, which have been secured through State Transportation Block Grant (CA and NV) and Congestion Mitigation and Air Quality (CMAQ) grants. Funding for the remaining property acquisition, relocation, and project construction would come from a variety of federal, state, and local sources, including Federal Transportation Act funds incorporated into recently passed legislation, Greenhouse Gas Reduction Fund from revenues of the Cap-and-Trade program administered by the California Air Resources Board, and newly adopted taxes from Douglas County, among others.
- Community Impacts
  - Impacts on Rocky Point Residents and Adjacent Businesses: The project's impact on the Rocky Point neighborhood and adjacent businesses has been one of the primary concerns of the public and decision-makers. The realignment alternatives would displace between 68 and 72 residential units and four to seven businesses to accommodate the realignment, depending on the specific alternative. The neighborhood affected by the project has a higher proportion of population that is below the poverty level and are minorities, compared to the general populations of the city, county, and Stateline Census-Designated Place (CDP). As a result, an environmental justice concern arises, because low-income and minority populations would disproportionately experience adverse environmental and displacement effects of the project. TTD has committed to constructing replacement housing and relocation assistance to affected persons prior to initiating construction of the transportation improvements and initiating the right-of-way acquisition process in California. In spite of the project's benefits, other measures included in the project to minimize adverse effects, and additional planning efforts to identify alternatives that would eliminate or reduce impacts, the preliminary determination from FHWA is that the project would still have a disproportionately high and adverse effect on minority and low-income populations in the Rocky Point neighborhood.
  - Division of the Existing Rocky Point Neighborhood: With implementation of the realignment alternatives, US 50 would be rerouted through an established neighborhood, which is characterized as having moderate community cohesion due to the presence of a concentrated minority population and transit-dependent population. The highway realignment and physical division of the neighborhood would change the character and cohesiveness of the neighborhood by displacing residents and substantially changing the visual character and ambient noise environment. The realigned US 50 would create a physical barrier restricting pedestrian access across the new highway alignment, although vehicular connectivity through the neighborhood would be maintained. Increased trip lengths for pedestrians and bicyclists in this neighborhood would need to maneuver around the realigned highway. The division would be offset to a degree by the enhanced bicycle and

pedestrian features (e.g., sidewalks and bicycle lanes) along the realigned highway and through the tourist core. These three alternatives (Alternatives B, C, and D) would physically divide residents within the Rocky Point neighborhood from each other, and for those residents southwest of the realigned highway, from the adjacent commercial and tourist core area. Minimizing the community division impact is a key issue for consideration during preparation of the final design plans.

- Impacts on Parks and Trails

  - Enhancing Access to Van Sickle Bi-State Park and Maintaining the Visual Connection to Tourist Core: Providing enhanced access to Van Sickle Bi-State Park is one of TTD's basic project objectives. The realignment alternatives (Alternatives B through D) would encroach into the park, requiring acquisition of about 0.5 acres of park land. TTD has consulted with the California Tahoe Conservancy and the Nevada Division of State Lands, the managers of the park, on measures to compensate for this encroachment. Each of the realignment alternatives would provide a new, grade-separated pedestrian and bicycle bridge over the realigned US 50 from the tourist core to Van Sickle Bi-state Park near the state line. This would become a new gateway to the park for visitors from the tourist core. These alternatives also include improved signage, context-sensitive design treatments for highway retaining walls and the proposed pedestrian bridge, paths and trails for bicycles and pedestrians, and two signalized at-grade crosswalks at existing park access points (the crossing near the entrance to Harrah's has no traffic control, and the existing Heavenly Village Way/Lake Parkway intersection is stop sign controlled). These improvements would better connect Van Sickle Bi-State Park to the tourist core and would make access safer and easier for pedestrians and bicyclists, and would enhance long-term access to the park.

  - Extending the Linear Park Shared-Use Path through the Tourist Core: The realignment alternatives would involve intersection and roadway construction along US 50 immediately adjacent to the Linear Park Multi-Use Trail on the west side of the project site. Construction of the new US 50/Pioneer Trail intersection and transportation improvements would require acquisition of between 0.08 and 0.09 acre, depending on the alternative, of the landscaped area, would reduce the width of the Linear Park in certain locations, and would realign a section of the Linear Park Multi-Use Trail. These alternatives would also include installation of a split rail barrier fence to separate the Linear Park from US 50 in certain locations where the path would be closest to the highway and would not meet minimum separation distances. The proposed transportation improvements and barrier fence would not decrease long-term access to the Linear Park and would retain the width of the existing 8-foot path. The realignment alternatives also provide the opportunities for the Linear Park Multi-Use Trail to be extended through the tourist core to the future segment of the Nevada Stateline-to-Stateline Bikeway alignment beginning at the corner of Lake Parkway and US 50. The fence adjacent to the Tahoe Meadows Historic District would be retained in its current location.

- Impacts on Utilities

  - Avoiding Utility Conflicts: The transportation improvements related to the build alternatives and development of the mixed-use sites could result in conflicts with existing utility infrastructure and require relocation of utilities or access points to utility infrastructure (i.e., water, sewer, electrical, and natural gas services). TTD has coordinated with utility providers (i.e., South Tahoe Public Utility District, Douglas County Sewer Improvement District, Edgewood Water Company, Lakeside Park Association, Liberty Utilities, NV Energy, and Southwest Gas Corporation) throughout the preliminary design phase and in preparation of this EIR/EIS/EIS and would continue to do so through the final design plans and construction. Any relocation of affected utility infrastructure would be coordinated with utility providers.

  - Providing Adequate Snow Removal and Storage: TTD would be required to provide for adequate snow removal and storage, as required by Douglas County, the City of South Lake Tahoe, TRPA, Caltrans, and NDOT. Melt water from snow storage areas carries concentrated amounts of nutrients, fine sediments, salt, sand pollutants from vehicles such as petroleum hydrocarbons, oil, or heavy metals

and materials from road and tire wear. Some of the parcels acquired through the right-of-way acquisition would be used for the purposes of snow storage. All potential snow storage locations would be designed to drain to best management practice (BMP) water quality treatment facilities capable of handling large sediment loads. In accordance with TRPA Code Section 60.1.4, all snow storage areas would meet the site criteria and management standards in the TRPA Handbook of Best Management Practices. In addition, snow storage areas may not be located within SEZs. The location of snow storage areas would be shown on all final design plans and a snow removal plan would be included with the improvement plan submittal.

- Multi-Modal Improvements

  - Enhanced Transit, and Pedestrian and Bicycle Facilities: The realignment alternatives would include a variety of bicycle and pedestrian infrastructure improvements that would enhance connectivity in the study area. These improvements would include improved and expanded sidewalks (new sidewalks would be constructed along the realigned US 50 between Pioneer Trail and Heavenly Village Way, as well as on the mountain side of US 50 between Lake Parkway and SR 207), enhanced bicycle facilities (either new bicycle lanes or a Class IV, or Cycle Track, through the tourist core connecting the Linear Park Multi-Use Trail to the Nevada Stateline-to-Stateline Bikeway). The enhancements would also include improved transit service, as well as the construction of new bus shelters through the tourist core. One of TTD's basic project objectives includes improving connectivity, reliability, travel times, and operations of public transportation modes, including increased mobility and safety for bicycles and pedestrians and enhanced public access to Van Sickle Bi-State Park via the new pedestrian bridge.

- Visual Resource Effects

  - Visual Effect of a Sound Barrier: Realignment of US 50 would redirect the majority of traffic through residential areas, exposing sensitive receptors to substantial increases in noise levels. A sound barrier (e.g., wood, brick adobe, and earthen berm, boulders, or combination thereof) is the most effective option to reduce noise exposure in these areas. However, although all feasible design treatments (e.g., landscaped berm to reduce visible mass and landscape screening) would be included to minimize visual effects on the Rocky Point neighborhood, the introduction of the highway and sound barrier into the neighborhood's visual setting could be problematic. A sound barrier or other noise treatment would ensure the TRPA's noise thresholds are not violated. TTD would need to carefully consider context-sensitive design solutions in the final design plans to minimize these effects.

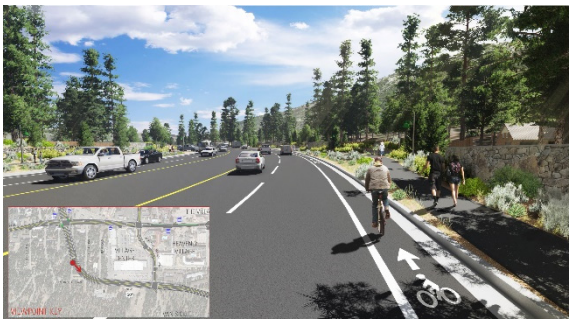


Illustration of Sound Barrier along Realigned US 50

- Water Quality Enhancements

  Implement Water Quality Enhancements Beyond the Lake Tahoe Environmental Improvement Program: Through coordination with stakeholders and a review of the strengths and weaknesses of the existing stormwater management systems within the study area, the project design team identified several measures that would enhance the ability of existing systems to protect water quality, and would create water quality benefits through the capture of currently untreated stormwater runoff. The enhancements to the stormwater system would be designed to more than offset increases in impervious surfaces resulting from the realignment alternatives, so they would implement water quality improvements above and beyond those contemplated in the Lake Tahoe Environmental Improvement Program.

S.5 SUMMARY OF IMPACTS AND MITIGATION

As discussed above, the US 50/South Shore Community Revitalization Project is a joint project proposed by TTD, TRPA, and FHWA, and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with CEQA; TRPA's Tahoe Regional Planning Compact, Code of Ordinances, and Rules of Procedure; and NEPA. TTD and TRPA have determined that an EIR and an EIS, respectively, would provide the appropriate level of environmental analysis. Impacts described in this document were found to be potentially adverse under NEPA, requiring preparation of an EIS.

After receiving comments from the public and reviewing agencies, a final environmental document will be prepared. The lead agencies may prepare additional environmental and/or engineering studies to address comments. The final environmental document will include responses to comments received on the Draft EIR/EIS/EIS. If the decision is made to approve an action alternative to implement the project, a Notice of Determination will be published for compliance with CEQA and FHWA will issue a Record of Decision (ROD) for compliance with NEPA.

Chapter 3, "Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures," of this Draft EIR/EIS/EIS describes in detail the environmental effects that would result from implementation of the project alternatives. Impacts are determined to be: 1) no impact; 2) not adverse, for the purposes of NEPA, or less than significant, for the purposes of CEQA and TRPA; 3) adverse, for the purposes of NEPA, or significant or potentially significant, for the purposes of CEQA and TRPA (potentially adverse changes in the environment, for which mitigation measures are required); and 4) adverse, for the purposes of NEPA, or significant and unavoidable, for the purposes of CEQA and TRPA (adverse changes in the environment that cannot be feasibly reduced to less-than-significant levels with mitigation measures). Where appropriate, for the purposes of CEQA and TRPA, beneficial impacts associated with the project alternatives are also noted.

Table S-1 (at the end of this chapter) summarizes the potential environmental effects that would result from implementation of the build alternatives; describes avoidance, minimization, or mitigation measures to address adverse and significant and potentially significant environmental effects; and identifies the significance of impacts both before and after mitigation.

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
3.2 Land Use					
Impact 3.2-1: Conflict with or impede implementation of existing land use plans and policies Implementation of Alternatives B, C, and D transportation improvements and mixed-use development, including replacement housing, would have the potential to conflict with certain policies in relevant planning documents (see Appendix E and summarized herein). However, a conflict with a specific policy alone does not constitute "inconsistency" with a land use plan. The environmental effects of any policy conflicts are addressed in the individual resource sections in Chapter 3, "Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures," of this document. Mitigation is incorporated to avoid or minimize significant effects to the extent feasible. Because Alternatives B, C, and D would implement the broader vision and goals of the overarching land use plans (i.e., RTP/SCS, TCAP, SSAP, and ATP), these alternatives would not be in conflict with existing land use plans. Because Alternative A would not construct a realigned US 50 around the tourist core along with other pedestrian and bicycle improvements, Alternative A would not meet the planning goals of the RTP/SCS, TCAP, and SSAP; however, Alternative A would not preclude construction of future transportation improvements in the study area. Similarly, Alternative E would only meet some of the goals of these plans related to safe pedestrian movement along US 50 in the resort-casino portion of the tourist core, because of the limited extent and nature of the improvements. Neither Alternative A nor Alternative E would preclude the possibility for a future proposal to implement similar transportation improvements as those identified in Alternatives B, C, and D. For these reasons, while Alternatives A	The design features of Alternatives A, B, C, D, and E would avoid or minimize conflicts with implementing land use plans and policies such that no additional mitigation measures are needed or feasible to implement.	Alts A, B, C, D, E = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alts A, B, C, D, E = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
and E would not meet planning goals, they would not be in conflict with existing land use plans.					
Impact 3.2-2: Include uses that are not listed as permissible uses in the applicable PASs, community plans, and area plans or expand or intensify an existing non-conforming use Alternative A would be a continuation of existing conditions, and as such Alternative A does not include uses that are not permissible, nor would it expand or intensify an existing non-conforming use. The transportation improvements proposed for Alternatives B, C, and D, including the realigned US 50, pedestrian overcrossing, and pedestrian and bicycle improvements, meet TRPA's definition of a transportation route. The raised pedestrian walkway proposed with Alternative E also meets this definition. These project features are identified as either allowable or special uses in applicable planning documents. Because existing regulations preclude the development of prohibited uses, and require that findings for any special uses be made before project approval, Alternatives B, C, and D transportation improvements and mixed-use development including replacement housing, and Alternative E would not include uses that are not permissible, nor would they expand or intensify an existing non-conforming use.	The design features of Alternatives B, C, D, and E would avoid or minimize the potential to include uses that are not permissible or expand or intensify an existing non-conforming use such that no additional mitigation measures are needed or feasible to implement Alt A = NI	Alts B, C, D, E = LTS Alt A = NI	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alts B, C, D, E = LTS Alt A = NI
3.3 Parks and Recreational Facilities					
Impact 3.3-1: Temporary disruption of public access to public lands and recreation areas During the construction period, Alternatives B, C, and D transportation improvements and mixed-use development including replacement housing would result in temporary disruption of public access to recreation areas and public lands (i.e., Van Sickle Bi-State Park, the Linear Park, and Edgewood Tahoe Golf Course) as a result of construction activities that	Mitigation Measure 3.3-1 has been incorporated into Alternatives B, C, D, and E to further reduce to the extent feasible temporary disruption of public access to public lands and	Alt A = NI Alts B, C, D, E = S	**Mitigation Measure 3.3-1: Provide detours and maintain access to recreation facilities and public lands during construction** The following mitigation applies to transportation improvements and mixed-use development including replacement housing included in Alternatives B, C, and D, and Alternative E for the purposes of NEPA, CEQA, and TRPA.	Alt A = NI Alts B, C, D, E = NAdv	Alt A = NI Alts B, C, D, E = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
could occur along US 50, Lake Parkway, and Montreal Road. Because the Linear Park is within the limits of mixed-use development Site 1 for Alternatives B and C, future redevelopment of this site could prolong the disruption in access to this recreation facility. Alternative E would result in temporary interference with pedestrian and vehicle access to Edgewood Tahoe Golf Course associated with the option to restripe Lake Parkway on the lake side of US 50. Alternative A would not result in disruption of public access.	recreation areas. No Impact for Alternative A Alt A = NI		The project proponent shall ensure that the Transportation Management Plan (TMP) prepared for the project addresses all modes of transportation used to access recreation areas, including vehicle, pedestrian, and bicycle modes. To mitigate short-term decreases in access to recreation resources, the TMP shall include detour plans that meet, at a minimum, the following specifications: 1. During construction of the relocated US 50/Pioneer Trail intersection, the pedestrian and bike trail within Linear Park may be required to be temporarily closed in the construction area. If this closure is required, all bicycle and pedestrian traffic shall be detoured to a temporary trail/path on the highway, separated from vehicle traffic by a physical barrier such as "K-Rail." Signage will be provided at the western end of Linear Park, at the intersection of Wildwood Avenue and US 50, and approaching the construction zone to alert trail users about the timing, duration, and nature of any construction-related closures and detours. 2. During construction of the new US 50/Heavenly Village Way intersection, roadway improvements eastward along the realigned US 50 alignment, and the pedestrian bridge over the new US 50 ROW, vehicle, pedestrian, and bicycle access to Van Sickle Bi-State Park shall be maintained through the use of detours and traffic control for all modes. Signage will be provided along roadways and sidewalks approaching the construction zone and in parking areas and trailheads within Van Sickle Bi-State Park to alert pedestrians, bicyclists, and motorists about the timing, duration, and nature of construction-related closures and detours.		

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			3. During the restriping of Lake Parkway, vehicular access to Edgewood Tahoe Golf Course shall be maintained by the use of detours and traffic control. Measures will be taken to keep the public informed of the project construction activities. When closures and/or detours are required, warning signs and signs regarding restricted access and detours will be posted to ensure adequate public safety. Detour routes will be clearly marked, and construction fencing or physical barriers will be installed to prevent access to the construction site and to clearly delineate the detour route. Full closure of trails or recreation facilities by the contractor(s) will be prohibited from July 1 through Labor Day weekend unless an approved detour has been established. All bicycle and pedestrian detours will be identified in the TMP and will be reviewed and approved by the project proponent, Caltrans, and TRPA before the start of earth-moving activities.		
Impact 3.3-2: Long-term change in public access to public lands and recreation areas Alternatives B, C, and D transportation improvements and mixed-use development including replacement housing would include improvements that facilitate enhanced access from the tourist core by creating an improved setting for walking and bicycling throughout the core area. Alternatives B, C, and D would increase public access to Van Sickle Bi-State Park and/or Linear Park as a result of the pedestrian/bicycle bridge over realigned US 50 that would increase connectivity for visitors to the tourist core. Alternatives B, C, D, and E would not result in a long-term decrease in public access to Edgewood Tahoe Golf Course, because of the option to restripe Lake	The design features of Alternatives B, C, and D would avoid or minimize long-term changes in public access to public lands and recreation areas such that no additional mitigation measures are needed or feasible to implement. Alts A, E = NI	Alts A, E = NI Alts B, C, D = B	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alts A, E = NI Alts B, C, D = B

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
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Parkway west of existing US 50, which would occur within the existing road footprint.					
Impact 3.3-3: Increased demand for or physical deterioration of recreation facilities To offset displacement of low- and moderate-income housing units acquired to accommodate project construction, Alternatives B, C, and D propose to construct replacement housing as part of mixed-use development at three locations within the South Lake Tahoe portion of the project site. If the number of housing units that are constructed is equivalent to those displaced, there would be no net increase in demand for recreation facilities, physical deterioration of the study area recreation facilities would not increase, and additional recreation resources would not be required. However, the mixed-use development at Sites 1, 2, and 3 as conceptualized in Alternatives B, C, and D could include construction of additional housing units above and beyond those necessary to replace units displaced by the project. Alternative B could result in a net increase of 139 housing units, Alternative C an additional 144 housing units, and Alternative D an additional 132 housing units. Because the type of higher density development and recreation demand associated with the mixed-use development including replacement housing has already been contemplated in the TCAP environmental review and Regional Plan, Alternatives B, C, and D would not substantively increase demand for recreation facilities, increase physical deterioration, or require additional recreation resources. Alternatives A and E would not include mixed-use development and the Alternatives B, C, and D transportation improvements would not result in an increase in demand for recreation facilities, physical deterioration of the study area recreation	The design features of Alternatives B, C, and D would avoid or minimize the recreation demand environmental consequences such that no additional mitigation measures are needed or feasible to implement. Alts A, E = NI	Alts B, C, D = LTS Alts A, E = NI	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alts B, C, D = LTS Alts A, E = NI

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
facilities would not increase, and additional recreation resources would not be required.					
Impact 3.3-4: Changes to the quality of recreation user experience Because Alternatives A and E would not include any infrastructure improvements in the vicinity of Lake Tahoe, public lands and/or recreation areas, Alternatives A and E would not affect the recreation user experience in the study area. The effects of Alternatives B, C, and D transportation improvements on the quality of recreation user experience at the Linear Park and Edgewood Companies mountain parcel would not be substantial because recreation user experience at these facilities is currently influenced by similar vehicle traffic on adjacent US 50 and Lake Parkway and the user experience would be similar to existing conditions. The mixed-use development including replacement housing proposed for Alternatives B, C, and D would be located adjacent to or near the Linear Park; however, these alternatives would not result in a substantial change in the quality of recreation user experience at this recreation facility, because the Linear Park is currently adjacent to existing US 50 and the user experience would be similar to existing conditions. Alternatives B, C, and D transportation improvements would increase traffic and traffic noise levels in some areas of Van Sickle Bi-State Park; however, noise level changes at these locations would not be discernible by users at the park facilities (also discussed in Impact 3.15-3). These alternatives would use design solutions that reflect the local character, is appropriate for the site, and is compatible with the surrounding environment in the changes at the main entrance to the park,	The design features of Alternatives B, C, D, and Alternative E would avoid or minimize the change in the quality of recreation user experience environmental consequences such that no additional mitigation measures are needed or feasible to implement. Alt A = NI	Alts A, E = NI Alts B, C, D = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alts A, E = NI Alts B, C, D = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
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the pedestrian overcrossing into the park, and the retaining wall along the mountain side of existing Lake Parkway. For these reasons, and taking into account the park setting in proximity to an urban area, Alternatives B, C, and D transportation improvements would not substantially diminish recreation user experience. Recognizing the influence of the combination of both detractions and enhancements to recreation resource site conditions (i.e., adverse for forest use, beneficial for access and amenities) and reasonably anticipating that user expectations take into account the setting, nearby urban area, and existing use patterns, the effect of the project's infrastructure improvements would have little effect on the quality of recreation user experiences in the study area.					
3.4 Community Impacts					
Impact 3.4-1: Physically divide an established community causing changes to community character and cohesion With implementation of Alternatives B, C, and D transportation improvements, US 50 would be rerouted through an established neighborhood (generally known as Rocky Point), which is characterized as having moderate community cohesion due to the presence of a concentrated minority population and transit-dependent population. The highway realignment and physical division of the neighborhood would change the character and cohesiveness of the neighborhood by displacing residents and substantially changing the visual character and ambient noise environment (see Sections 3.7, "Visual Resources/Aesthetics" and 3.15, "Noise and Vibration"). The realigned US 50 would create a physical barrier restricting pedestrian access across the new highway alignment, although vehicular connectivity through the	Alts A, E = NI Mitigation Measure 3.4-1 has been incorporated into Alternatives B, C, and D to further reduce to the extent feasible the environmental consequences related to physical division of an established community and associated adverse changes in the character and cohesiveness of a residential neighborhood.	Alts A, E = NI Alts B, C, D = S	Mitigation Measure 3.4-1: Minimize effects on the character and cohesiveness of the Rocky Point Neighborhood The following mitigation measure applies to Alternatives B, C, and D transportation improvements for the purposes of NEPA, CEQA, and TRPA. With respect to changes in visual conditions and noise that affect the character and cohesiveness of the Rocky Point neighborhood, implement Mitigation Measure 3.7-1a (see Section 3.7, "Visual Resources/Aesthetics") and Mitigation Measures 3.15-3a, 3.15-3b, and 3.15-3c (see Section 3.15, "Noise and Vibration").	Alts A, E = NI Additional mitigation measures have been incorporated into Alternatives B, C, and D to further reduce to the extent feasible the environmental consequences related to physical division of an established community and associated adverse changes in the character and cohesiveness of a residential neighborhood.	Alts A, E = NI Alts B, C, D = SU

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
neighborhood would be maintained. Increased trip lengths for pedestrians and bicyclists in this neighborhood would in part be offset by the enhanced bicycle and pedestrian features (e.g., sidewalk and bicycle lane) along the new highway. These three alternatives would physically divide residences within the Rocky Point neighborhood from each other, and for those residents southwest of the realigned highway from the adjacent commercial and tourist core area. Residents and businesses would be displaced by right-of-way acquisition. (Note: displacement is discussed further in Impact 3.4-4.) Considering these impact influences together, the physical division of an established community caused by the Alternatives B, C, and D realignment of US 50 would result in adverse changes in the character and cohesiveness of a residential neighborhood. The mixed-use development sites associated with Alternatives B, C, and D mixed-use development, including replacement housing, are the preferred locations for construction of replacement housing for residents displaced by the project. Implementation of Alternatives B, C, and D mixed-use development, including replacement housing, would include new buildings that are consistent in character to other existing, newer development, would replace hotel units with housing units and commercial uses that would contribute to a stronger sense of community, and would not physically divide an established neighborhood. For these reasons, these alternatives with mixed-use development, including replacement housing, would not result in any adverse changes in the character and cohesiveness of a residential neighborhood beyond those associated with the Alternatives B, C, and D. Because Alternative A would include no changes and Alternative E would not include project components located					

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Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
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within an established neighborhood community, these alternatives would not adversely affect community character or cohesion or disrupt or divide an established community.					
Impact 3.4-2: Alter the location, distribution, or growth of the human population for the Region during construction Alternatives B, C, and D transportation improvements would generate a temporary increase in employment in the South Shore of Lake Tahoe of approximately 80 construction jobs during construction of the transportation improvements. The maximum number of construction employees on-site at one time would be approximately 30 employees during the most intensive construction phase of the transportation improvements. For construction of the mixed-use development, including replacement housing, for Alternatives B, C, and D, these alternatives would generate approximately 90 construction jobs during the most intensive construction phase and would generate approximately 175 construction employees if two of the mixed-use development sites are constructed simultaneously. Construction of Alternative E would generate a temporary increase in employment of approximately 45 construction jobs with the maximum number of employees on-site at one time would be approximately 15 construction employees. The number of existing construction personnel in the study area and surrounding areas would be sufficient to meet demand associated with the build alternatives; therefore, this temporary increase in employment is not expected to generate substantial temporary population growth or generate the need for additional housing for construction workers. Therefore, Alternatives B, C, D, and E would not alter the location, distribution, or growth of the human population planned for the Region. Alternative A would not result in any new construction and, thus, would not increase demand for construction workers or	Alt A = NI The design features of Alternatives B, C, D, and E would avoid or minimize effects related to alteration of the location, distribution, or growth of the population during construction.	Alt A = NI Alts B, C, D, E = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alt A = NI Alts B, C, D, E = LTS

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result in an associated increase in housing demand during construction. Alternative A would not induce substantial population growth or housing demand in the Region during construction.					
Impact 3.4-3: Alter the location, distribution, or growth of the human population for the Region during operation Alternatives B, C, and D transportation improvements and Alternative E could result in additional road and facility maintenance needs during operation but would not generate demand for a substantial number of new employees. The transportation improvements do not include components that would increase population and, thus, would not generate additional demand for housing. Alternatives B, C, and D transportation improvements and Alternative E would not alter the location, distribution, or growth of the human population planned for the Region. Alternatives B, C, and D mixed-use development, including replacement housing, would result in the same needs for additional road and facility maintenance needs described for these alternatives transportation improvements. With development of new commercial and housing units associated with the mixed-use development, including replacement housing, Alternatives B, C, and D would generate a net increase of up to approximately 180 – 210 new jobs and an estimated net population increase of approximately 320 – 340 people (after accounting for replacement of housing and employment displaced by the project). The additional demand for employees would likely be met by existing residents in the South Shore area. Furthermore, the employment and population growth generated by the mixed-use development, including commercial and residential uses, has been planned for as part of the Regional Plan and the Tourist Core Area Plan.	Alt A = NI The design features of Alternatives B, C, D, and E would avoid or minimize effects related to alteration of the location, distribution, or growth of the population during operation.	Alt A = NI Alts B, C, D, E = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alt A = NI Alts B, C, D, E = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
Thus, Alternatives B, C, and D mixed-use development, including replacement housing, would not alter the location, distribution, or growth of the human population planned for the Region. Alternative A would not result in any changes to existing conditions that would increase housing demand. Alternative A would not alter the location, distribution, or growth of the human population planned for the Region.					
Impact 3.4-4: Housing supply availability, including affordable housing Acquisition of land and buildings necessary for the US 50 realignment, new US 50/Pioneer Trail intersection, new sidewalks and bike lanes, and the mixed-use development, including replacement housing, would displace existing residences with the Alternative B, C, and D transportation improvements and mixed-use development, including replacement housing. TTD would provide relocation assistance to all eligible displaced owner and tenant residents in accordance with the requirements of the Uniform Act and the Relocation Assistance Law. These alternatives would also include construction of replacement housing, including deed-restricted affordable and deed-restricted moderate-income housing, equal to or greater than the number of housing units displaced prior to relocating owner and tenant residents and prior to construction of transportation improvements in California. For these reasons, the Alternative B, C, and D transportation improvements and mixed-use development, including replacement housing, would result in no net loss of housing, including affordable and moderate-income housing, in the South Shore and there would be no need to construct additional affordable housing elsewhere beyond those included in the project.	Alts A, E = NI Compliance with the Uniform Act and Relocation Assistance Law and the design features of Alternatives B, C, and D would avoid or minimize effects on housing supply availability, including affordable housing, such that no additional mitigation measures are needed or feasible to implement.	Alts A, E = NI Alts B, C, D = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alts A, E = NI Alts B, C, D = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
Alternative A would include no changes and Alternative E would not require acquisition of private property and, thus, would not displace housing (including affordable housing) or residents.					
Impact 3.4-5: Displacement of businesses Alternatives B, C, and D, transportation improvements and mixed-use development, including replacement housing, would require full acquisition of parcels containing businesses. Alternatives B and C transportation improvements would affect four businesses (14 employees), and mixed-use development, including replacement housing, would affect 10 additional businesses (78 additional employees). Alternative D transportation improvements would affect seven businesses (57 employees), and the mixed-use development, including replacement housing, would affect three additional businesses (21 additional employees). TTD would provide relocation assistance to all eligible displaced businesses in accordance with the requirements of the Uniform Act and the Relocation Assistance Law. The Relocation Study (TTD 2012) indicated that there would be a sufficient supply of existing business relocation properties in the South Shore area. Therefore, implementation of Alternatives B, C, and D, transportation improvements or mixed-use development, including replacement housing, would not require construction of new buildings for relocation of displaced businesses. Alternatives B, C, and D mixed-use development, including replacement housing, could include construction of new commercial space, which could provide additional locations for the displaced businesses to relocate. Alternative A would include no changes and Alternative E would not require acquisition of private property and, thus, would not displace businesses.	Alts A, E = NI Compliance with the Uniform Act and Relocation Assistance Law and the design features of Alternatives B, C, and D would avoid or minimize effects related to displacement of businesses such that no additional mitigation measures are needed or feasible to implement.	Alts A, E = NI Alts B, C, D = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alts A, E = NI Alts B, C, D = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
3.5 Public Services and Utilities					
Impact 3.5-1: Conflicts with existing utility infrastructure Transportation improvements and construction of mixed-use development, including replacement housing, for Alternatives B, C, and D could result in conflicts with existing utility infrastructure and require relocation of utilities or access points to utility infrastructure (i.e., water, sewer, electrical, and natural gas services). Depending on the alternative, utility infrastructure that could be affected by the build alternatives is generally located at and around the existing US 50/Pioneer Trail and Pioneer Trail/Echo Road intersections and along existing US 50, Fern Road, Moss Road, Montreal Road, and the lake side of Lake Parkway. TTD would be required to coordinate with utility providers to address the project's conflicts with utility infrastructure. However, the extent to which existing utility infrastructure could be adversely affected, and plans for relocation, have not yet been determined, and plans for any necessary relocation have not yet been determined.	Alt A = NI Mitigation Measure 3.5-1 has been incorporated into Alternatives B, C, D, and E to further reduce to the extent feasible the environmental consequences related to conflicts with existing utility infrastructure.	Alt A = NI Alts B, C, D, E = PS	Mitigation Measure 3.5-1: Prepare and implement a Utility Relocation Study This mitigation measure is required for Alternatives B, C, and D transportation improvements and mixed-use development, including replacement housing, and Alternative E, for the purposes of NEPA, CEQA, and TRPA. Before the start of construction-related activities, including demolition of displaced residential, hotel/motel, and commercial buildings, the TTD (and the project proponent for the mixed-use development) shall coordinate with STPUD, DCSID, EWC, Lakeside Park Association, Liberty Utilities, NV Energy, and Southwest Gas Corporation to relocate utility infrastructure, which is dependent on the alternative and could include infrastructure at and near the existing US 50/Pioneer Trail and Pioneer Trail/Echo Road intersections and along US 50, Fern Road, Moss Road, Primrose Road, Montreal Road, and the lake side of Lake Parkway. The final design plans for the transportation improvements submitted to Caltrans and NDOT shall identify all utility relocations affected by the transportation improvements. To minimize disruption to utility services, relocation of the utility lines shall occur after any required clearing and demolition within the study area and before construction of the realigned US 50 and other transportation improvements. Actions needed to comply with this mitigation measure include coordination with each affected utility company to prepare a utility relocation study that would, at a minimum, include the following: ◢ plans that identify the utility infrastructure elements that require relocation as a result of constructing	Alt A = NI Alts B, C, D, E = No additional mitigation measures would be needed or are feasible to implement.	Alt A = NI Alts B, C, D, E = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			the project transportation improvements and mixed-use development, including replacement housing; ◢ safety measures to avoid any human health hazards or environmental hazards associated with capping and abandoning some utility infrastructure, such as natural gas lines or sewer lines; ◢ timing for completion of the utility infrastructure relocation as part of construction of the transportation improvements and mixed-use development, including replacement housing, which shall be scheduled to minimize disruption to the utility companies and their customers; ◢ reparations, if required, and certification of necessary additional environmental evaluations and pertinent processes (e.g., CEQA, NEPA, and/or TRPA documents and requirements), all of which shall be completed, as necessary, before final plans for the mixed-use development, including replacement housing, are permitted; ◢ preparation and approval by a licensed civil engineer; and ◢ approval as adequate by the affected utility companies and Caltrans, NDOT, TTD, and TRPA, as necessary.		
Impact 3.5-2: Increased demand for water supply Alternatives B, C, and D transportation improvements would generate water demand for dust suppression during construction that would be met by water trucks as necessary. Implementation of Alternatives B, C, and D mixed-use development, including replacement housing, would require water supplies for operation of residential and commercial uses and for fire suppression. Water demand associated with the mixed-use development, including replacement housing,	Alt A = NI The design features of Alternatives B, C, D, and E would avoid or minimize water demand environmental consequences such that no additional mitigation	Alt A = NI Alts B, C, D, E = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alt A = NI Alts B, C, D, E = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
would require additional water supplies; however, projected demand under each alternative would be substantially less than available supplies. Alternative E would generate water demand for dust suppression during construction, which would be met by water trucks as necessary.	measures are needed or feasible to implement.				
Impact 3.5-3: Increased demand for wastewater collection, conveyance, and treatment Alternatives B, C, and D transportation improvements and Alternative E would not result in an increased demand on wastewater collection, conveyance, and treatment because construction workers would use portable toilets rather than public wastewater facilities. Construction of mixed-use development, including replacement housing, for Alternatives B, C, and D would require additional wastewater collection, conveyance, and treatment to serve the additional residential and commercial development. Adequate capacity is available in the wastewater treatment plant to serve the wastewater flows generated by the mixed-use development, including replacement housing. However, the addition of wastewater flows from the mixed-use development would exceed the capacity of one segment of pipe in the wastewater collection and conveyance system near the McDonald's on Lake Tahoe Boulevard and contribute flows to another segment of pipe on Lakeshore Boulevard south of Park Avenue that is already over capacity. Because no project activity would be implemented with Alternative A, there would be no change in demand for wastewater collection, conveyance, and treatment.	Alts A, E = NI Mitigation Measure 3.5-3 has been incorporated into Alternatives B, C, and D to further reduce to the extent feasible the environmental consequences related to demand for wastewater collection, conveyance, and treatment	Alts A, E = NI Alts B, C, D = PS	**Mitigation Measure 3.5-3: Ensure sufficient capacity in the STPUD wastewater collection and conveyance system** This mitigation measure is required for Alternatives B, C, and D mixed-use development, including replacement housing, for the purposes of NEPA, CEQA, and TRPA. Prior to completion of project-level environmental review for the mixed-use development, including replacement housing, the project applicant shall coordinate with STPUD to determine the wastewater conveyance demand for a detailed project design, including the number of housing units and square footage of commercial floor area. If STPUD finds that the project-generated peak wastewater flows cause the STPUD line between SSMH BJ182 and SSMH BJ181 to surcharge, then STPUD and the project applicant shall develop plans for and construct improvements that would allow for conveyance of buildout wastewater flows. The project applicant shall be responsible for covering the cost of improvements that would be needed to serve the mixed-use development. The improvements shall be constructed to meet peak wet weather flows in the sewer line between SSMH BJ182 and SSMH BJ181, located near McDonald's and Lake Tahoe Vacation Resort on Lake Tahoe Boulevard. The plans shall identify the timing of the improvements, and that the capacity of the line will be available when needed by the mixed-use development. Replacement of this	Alts A, E = NI Alts B, C, D, E = No additional mitigation measures would be needed or are feasible to implement.	Alts A, E = NI Alts B, C, D = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			sewer line shall be completed prior to occupancy of the mixed-use development. If STPUD finds that project-generated peak wastewater flows contribute to an existing surcharge condition at SSMH BJ25, then STPUD and the project applicant shall either develop plans for and construct improvements that would allow for the conveyance of buildout wastewater flows. Alternatively, the project applicant would be required to pay their fair share towards improvements at SSMH BJ25. The project applicant shall provide a will-serve letter from STPUD that indicates their wastewater treatment collection and conveyance infrastructure has adequate capacity to serve the mixed-use development, including replacement housing, and that any necessary improvements to the system have been completed prior to the issuance of occupancy permits by the City of South Lake Tahoe.		
Impact 3.5-4: Increased generation of solid waste Under the build alternatives, waste generated during land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities would require disposal. Under Alternatives B, C, and D mixed-use development, including replacement housing, scenarios, solid waste generation would increase over the long term as a result of new housing units and commercial units. However, the Lockwood Regional Landfill presently has a capacity of approximately 280 million cubic yards. Waste generated as part of the project would not represent a substantial proportion of remaining capacity at the landfill. Additionally, Alternatives B, C, D, and E would implement a Construction Waste Management plan and divert a minimum of 65 percent of construction and demolition waste from the landfill.	Alt A = NI The design features of Alternatives B, C, D, and E would avoid or minimize solid waste demand environmental consequences such that no additional mitigation measures are needed or feasible to implement.	Alt A = NI Alts B, C, D, E = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alt A = NI Alts B, C, D, E = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
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Impact 3.5-5: Inefficient and wasteful consumption of energy The energy used for project construction would not require substantial additional power generation capacity or substantially increase peak or base-period demand for electricity and other forms of energy. New housing units associated with Alternatives B, C, and D mixed-use development, including replacement housing, would be required to meet Title 24 standards for energy efficiency. The mixed-use development sites would be concentrated within walking distance of retail, restaurants, and services. In addition, vehicle trips generated by the project would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the Region.	Alt A = NI The design features of Alternatives B, C, D, and E would avoid or minimize the environmental consequences related to inefficient or wasteful consumption of energy.	Alt A = NI Alts B, C, D, E = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alt A = NI Alts B, C, D, E = LTS
Impact 3.5-6: Increased demand for law enforcement and fire and emergency services Multiple local, state, and federal agencies provide police, fire, and emergency services to the study area throughout high and low tourist seasons. Because Alternatives B, C, and D transportation improvements would not result in an increased population, there would be no increase in demand for police, fire, or emergency services. With Alternatives B, C, and D mixed-use development, including replacement housing, population increases would not be substantial enough to require additional police, fire, or emergency services. Demand for law enforcement, fire, and emergency services would not increase with Alternatives A and E.	Alts A, E = NI The design features of Alternatives B, C, and D would avoid or minimize environmental consequences related to demand for law enforcement, fire, and emergency services such that no additional mitigation measures are needed or feasible to implement.	Alts A, B, C, D, E = NI	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alts A, B, C, D, E = NI
Impact 3.5-7: Increased demand for public schools Implementation of Alternatives B, C, and D transportation improvements would result in a decrease in population due to the removal of housing units. This is likely to reduce the number of students in the study area and would not require the construction of additional public schools. With Alternatives B, C,	Alts A, E = NI The design features of Alternatives B, C, and D would avoid or minimize the environmental	Alts A, B, C, D, E = NI	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alts A, B, C, D, E = NI

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
and D mixed-use development, including replacement housing, the number of additional students would be minimal compared to the total student population of the school district and typical fluctuation in enrollment at nearby public schools. Schools would not be affected with Alternative A and E.	consequences related to demand for schools.				
3.6 Traffic and Transportation					
Impact 3.6-1: Impacts on intersection operations related to the redevelopment of the mixed-use development sites to accommodate replacement housing (Before Opening Day) Redevelopment of the mixed-use development sites to accommodate displaced residents would not affect intersection operations on the existing roadway network. For Alternatives B, C, and D, TTD would construct replacement housing and relocate residents before initiating construction of the transportation improvements in California. This analysis focuses on Site 3, because redevelopment of Site 1 before the transportation improvements is not feasible given its location on existing US 50, and Site 2 is located at the edge of the existing Rocky Point neighborhood and would displace businesses that generate similar traffic volumes where the impact on existing intersection operations is expected to be minimal. The Site 3 redevelopment potential would be the same under all three alternatives. Modeled intersections operations would remain at acceptable levels for Alternatives B, C, and D. Alternatives A and E would not displace residents and would not include any residential displacement or redevelopment. Intersection operations under Alternatives A and E would remain unchanged.	Alts A, E = NI The design features of Alternatives B, C, and D would avoid or minimize the impacts on intersection operations such that no additional mitigation measures are needed or feasible to implement.	Alts A, B, C, D, E = NI	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alts A, B, C, D, E = NI
Impact 3.6-2 Impacts of transportation improvements on intersection operations – 2020 (Opening Day) The US 50/South Shore Community Revitalization Project would not generate additional 2020 (opening day) vehicle trips	The design features of Alternatives A, B, D, and E would avoid or minimize the impacts on intersection	Alt A = LTS Alts B, D, E = B Alt C = S	**Mitigation Measure 3.6-2: Change the eastbound and westbound directional traffic on US 50** This mitigation would apply to Alternative C transportation improvements for the purposes of NEPA, CEQA, and TRPA.	Alts A, B, D, E = NA Alt C = No additional mitigation measures	Alt A = LTS Alts B, D, E = B Alt C = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
that could affect intersection operations; rather, it would implement improvements to existing transportation infrastructure and change circulation patterns within the study area. For Alternatives B, C, and D, US 50 would be realigned to connect to and approximately follow the existing Lake Parkway East alignment. Under Alternatives A and E, the existing US 50 roadway alignment would remain the same as existing conditions. Under Alternative E, LOS intersection operations would remain at acceptable levels in 2020 and LOS at the intersection of Old US 50/Stateline Avenue would improve substantially. Under Alternatives B and D, LOS would improve at several intersections compared to existing conditions. All intersections would operate at acceptable LOS under Alternative A. The implementation of Alternative C would result in unacceptable intersection LOS at the new US 50/Pioneer Trail/Old US 50, Old US 50/Park Avenue/Heavenly Village Way, and new US 50/Lake Parkway/Old US 50 (roundabout option) intersections during summer peak-hour conditions. Exhibits 3.6-10 through 3.6-18 show the lane geometry and study area volumes associated with each of the project alternatives. Because redevelopment of one or more of the mixed-use development sites would not generate new trips as it would provide replacement housing for displaced residents and the remaining site(s) would be constructed between 2020 and 2040, the Alternatives B, C, and D mixed-use development sites were not analyzed under this 2020 (opening day) scenario.	operations in 2020 such that no additional mitigation measures are needed or feasible to implement; Mitigation Measure 3.6-2 has been incorporated into Alternative C to further reduce to the extent feasible the environmental consequences related to impacts on intersection operations in 2020.		During subsequent design phases, the project proponent shall reverse the directions of traffic flow on US 50 such that eastbound US 50 would be realigned onto a new alignment along Lake Parkway southeast of existing US 50, and westbound US 50 would remain in place as under existing conditions.	would be needed or are feasible to implement.	
Impact 3.6-3: Impacts on roadway segment operations – 2020 (Opening Day) Under the opening day conditions, Alternatives B, D, and E would result in acceptable roadway segment LOS during annual average and summer peak hours. Alternative E would actually improve roadway segment LOS for both roadway study	The design features of Alternatives A, B, D, and E would avoid or minimize the impacts on roadway segment operations in 2020 such that no	Alt A, B, D = LTS Alts E = B Alt C = S	**Mitigation Measure 3.6-3: Change the eastbound and westbound directional traffic on US 50 pursuance to Mitigation Measure 3.6-2** This mitigation would apply to Alternative C transportation improvements for the purposes of NEPA, CEQA, and TRPA.	Alts A, B, D, E = NA Alt C = Mitigation Measure 3.6-3 has been incorporated into Alternative C, but there are no other feasible	Alt A, B, D = LTS Alts E = B Alt C = SU

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
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segments during summer peak conditions. However, with Alternative C, three roadway segments within the study area (eastbound and westbound existing US 50 between Pioneer Trail and Park Avenue and one-way eastbound US 50 between Park Avenue and Lake Parkway) would be reduced to unacceptable roadway segment LOS. LOS segment operations would remain at acceptable levels for all study area arterial segments with Alternative A. Because redevelopment of one or more of the mixed-use redevelopment sites would not generate new trips as it would provide replacement housing for displaced residents and the remaining site(s) would be constructed between 2020 and 2040, the Alternatives B, C, and D mixed-use development sites were not analyzed under this 2020 (opening day) scenario.	additional mitigation measures are needed or feasible to implement; Mitigation Measure 3.6-3 has been incorporated into Alternative C to further reduce to the extent feasible the impacts on roadway segment operations in 2020.		See Mitigation Measure 3.6-2 above. The same mitigation measure would apply.	mitigation, avoidance, or minimization measures that could further reduce to the extent feasible the environmental consequences related to impact on roadway segment operations.	
Impact 3.6-4: Impacts on vehicle miles of travel – 2020 (Opening Day) Realignment of US 50 to create the opportunity for community revitalization in the Stateline/South Lake Tahoe tourist core is included in the approved RTP (originally named Alternative 3 in the *Lake Tahoe Regional Transportation Plan and Sustainable Communities Strategy Draft Environmental Impact Report/Draft Environmental Impact Statement* [RTP/SCS EIR/EIS]) and the RTP would have a net beneficial effect by reducing regional per capita VMT. The opportunity for community revitalization would be a source of reduced VMT, because visitor uses could be concentrated in a compact, pedestrian/bicycle/transit-served urban core, decreasing the need to take vehicle trips to reach some tourism destinations (e.g., hotel to restaurant or entertainment venue trip, retail shopping trips). The realignment, itself, would cause a small, localized increase in VMT for through traffic with Alternatives B, C, and D, because the route of US 50 would be slightly longer around the tourist core than through it; however, its mobility	The design features of Alternatives A, B, C, D, and E would avoid or minimize the impacts on VMT in 2020 such that no additional mitigation measures are needed or feasible to implement.	Alts B, C, D = B Alts A, E = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alts B, C, D = B Alts A, E = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

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	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
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enhancements and support of planned development in an urban center would be consistent with attaining the regional total VMT threshold (as required by the Lake Tahoe Regional Plan and evaluated in the Regional Plan Update EIS). The realignment of US 50, would remain consistent with the VMT per capita goal of RTP/SCS EIR/EIS Alternative 3 and would support achievement of the Regional Plan VMT requirements, so the beneficial impact of the RTP on regional VMT would be sustained. Alternative A would affect VMT because it would not support revitalization of the tourist core and would retain the same length of US 50 in the corridor. For Alternative E, the existing roadway alignment would remain the same with separation of pedestrians on an elevated structure. It would not support revitalization in the tourist core as effectively as the realignment alternatives and the through-traffic trip length on US 50 would be unchanged. Because redevelopment of one or more of the three mixed-use development sites would not generate new trips as it would provide replacement housing for displaced residents and the remaining site(s) would be constructed between 2020 and 2040, the Alternatives B, C, and D mixed-use development sites are not analyzed under the 2020 (opening day) scenario.					
Impact 3.6-5: Impacts on bicycle and pedestrian facilities – 2020 (Opening Day) Because of their design, Alternatives B, C, D, and E would not disrupt or interfere with existing or planned bicycle/pedestrian facilities; rather, they would enhance the existing infrastructure and create a bicycle and pedestrian network with enhanced connectivity. Furthermore, Alternatives B, C, D, and E would not create an inconsistency with any adopted policies related to bicycle or pedestrian systems. No modifications to the existing bicycle or pedestrian infrastructure would occur under Alternative A. Because redevelopment of one or more of the three mixed-use	Alt A = NI The design features of Alternatives B, C, D, and E would avoid or minimize the impacts on bicycle and pedestrian facilities in 2020 such that no additional mitigation measures are needed or feasible to implement.	Alts B, C, D, E = B Alt A = NI	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alts B, C, D, E = B Alt A = NI

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
development sites would not generate new trips as it would provide replacement housing for displaced residents, relocated residents would have access to the same pedestrian and bicycle facilities as under existing conditions, and the remaining site(s) would be constructed between 2020 and 2040, the Alternatives B, C, and D mixed-use development sites were not analyzed under this 2020 (opening day) scenario.					
Impact 3.6-6: Impacts on transit – 2020 (Opening Day) Alternatives B, C, D, and E would not disrupt or interfere with existing transit facilities and would enhance the existing transit infrastructure. Furthermore, the build alternatives would be consistent with adopted policies related to transit systems. No modifications to the existing transit infrastructure would occur under Alternative A. Because Alternatives B, C, and D mixed-use development would be constructed between 2020 and 2040, this condition is not analyzed under the 2020 (opening day) scenario. However, replacement housing for these alternatives would be constructed at one or more of the three mixed-use development sites prior to implementation of the transportation improvements in California and is analyzed here for the 2020 scenario. Transit demand associated with the replacement housing could shift within the project site, but there would be no net increase in the number of residents in the project site that would result in an increase in demand for transit.	The design features of Alternatives A, B, C, D, and E would avoid or minimize the impacts on transit in 2020 such that no additional mitigation measures are needed or feasible to implement.	Alts B, C, D = B Alts A, E = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alts B, C, D = B Alts A, E = LTS
Impact 3.6-7: Construction-related traffic impacts – 2020 (Opening Day) Construction of the transportation improvements for Alternatives B, C, D, and E would result in construction-related traffic and temporary disruption to traffic circulation in the area of construction. The transportation improvements could be constructed over three construction seasons. In accordance with Caltrans requirements, the construction phase of the	Alt A = NI The design features of Alternatives B, C, D, and E would avoid or minimize the construction-related traffic impacts in 2020 such that no additional mitigation measures are	Alts B, C, D = LTS Alt A = NI Alt E = SU	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	Alts A, B, C, D = NA Alt E = The design features of Alternative E would minimize the construction-related traffic impacts in 2020, but there are no other feasible mitigation, avoidance, or	Alts B, C, D = LTS Alt A = NI Alt E = SU

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
project would include a Transportation Management Plan (TMP) that would be implemented during construction operations. The TMP would be completed in coordination with Caltrans, TTD, TRPA, NDOT, City of South Lake Tahoe, and Douglas County. Implementation of the TMP would minimize transportation disruptions during construction. No construction would occur under Alternative A. Lane closures and temporary full closure of US 50 would occur with construction of Alternative E. The replacement housing would be constructed at one or more of the mixed-use development sites prior to construction of transportation improvements. Construction activities for the replacement housing would maintain access to businesses and residences and would conform with City of South Lake Tahoe standards, as applicable. Because construction of mixed-use development at the remaining site(s) would be constructed after 2020, Alternatives B, C, and D mixed-use development were not analyzed under the 2020 (opening day) scenario.	needed or feasible to implement; The design features of Alternative E would minimize the construction-related traffic impacts in 2020, but there are no other feasible mitigation, avoidance, or minimization measures that could further reduce construction-related traffic impacts.			minimization measures that could further reduce construction-related traffic impacts.	
Impact 3.6-8: Impacts on vehicular, bicycle, and pedestrian safety – 2020 (Opening Day) Alternatives B, C, D, and E would enhance the existing infrastructure and improve safety throughout the vehicular, bicycle, and pedestrian network within the study area. No modifications to the existing vehicular, bicycle, or pedestrian infrastructure would occur under Alternative A, however vehicular traffic would increase within the study area thus impacting bicycle safety and the existing above state average traffic accidents and injuries occurring at the US 50/Lake Parkway Loop intersection. Construction of replacement housing at one or more of the mixed-use development sites would not substantially alter vehicular travel within the study area and would have no effect on bicycle or pedestrian infrastructure. Mixed-use development at the remaining site(s)	The design features of Alternatives B, C, D, and E would avoid or minimize the impacts on vehicular, bicycle, and pedestrian safety in 2020 such that no additional mitigation measures are needed or feasible to implement; there would be no mechanism by which to implement or enforce avoidance or mitigation measures to minimize impacts on vehicular,	Alts B, C, D, E = B Alt A = SU	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	Alts B, C, D, E = NA Alt A = There would be no mechanism by which to implement or enforce avoidance or mitigation measures to minimize impacts on vehicular, bicycle, and pedestrian safety in 2020 from Alternative A.	Alts B, C, D, E = B Alt A = SU

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
would be constructed between 2020 and 2040; therefore, the Alternatives B, C, and D mixed-use development at these sites is not analyzed under the 2020 (opening day) scenario.	bicycle, and pedestrian safety in 2020 from Alternative A.				
Impact 3.6-9: Impacts on emergency access – 2020 (Opening Day) The build alternatives could affect police services, fire protection, and emergency medical services response times and delivery of emergency services. Alternatives B, D, and E would reduce congestion along existing US 50 and thereby improve long-term emergency access within the study area. There would be no changes under Alternative A. Alternative C would result in increased congestion and reduced emergency access to a segment of existing US 50 due to the new circulation patterns. Because mixed-use development would be constructed between 2020 and 2040, Alternatives B, C, and D mixed-use development were not analyzed under this 2020 (opening day) scenario. Replacement housing constructed at one of the three mixed-use development under the 2020 scenario would not interfere with existing emergency access and would be constructed to meet City requirements for emergency access.	The design features of Alternatives A, B, D, and E would avoid or minimize the impacts on emergency access in 2020 such that no additional mitigation measures are needed or feasible to implement; Mitigation Measure 3.6-9 has been incorporated into Alternative C to further reduce to the extent feasible the environmental consequences related to emergency access in 2020.	Alts A, B, D, E = LTS Alt C = S	**Mitigation Measure 3.6-9: Change the eastbound and westbound directional traffic on US 50 pursuant to Mitigation Measure 3.6-2** This mitigation would apply to Alternative C transportation improvements for the purposes of NEPA, CEQA, and TRPA. See Mitigation Measure 3.6-2 above. The same mitigation measure would apply.	Alts A, B, D, E = NA Alt C = Mitigation Measure 3.6-9 has been incorporated into Alternative C, but there are no other feasible mitigation, avoidance, or minimization measures that could further reduce to the extent feasible the environmental consequences related to emergency access in 2020.	Alts A, B, D, E = LTS Alt C = SU
Impact 3.6-10: Construction-related parking impacts Construction staging areas for transportation improvements associated with Alternatives B, C, D, and E could be located on one or more parking lots at Harvey's Lake Tahoe, Hard Rock Hotel and Casino, and Montbleu Resort and Casino. These property owners have indicated there is sufficient parking in their parking garages. A construction staging area on the Harvey's parking lot would not interfere with the annual summer concert series. The use of any of these sites would be implemented through a willing agreement between the property owner and construction contractor. Construction	Alt A = NI Mitigation Measure 3.6-10 has been incorporated into Alternatives B, C, and D to further reduce to the extent feasible the environmental consequences related to temporary loss of parking; The design features of Alternative E would avoid or minimize construction-	Alt A = NI Alt E= LTS Alts B, C, D = S	**Mitigation Measure 3.6-10: Prepare a detailed parking plan to meet Heavenly Village Center demand during construction, pursuant to Mitigation Measure 3.6-11** This mitigation would apply to Alternatives B, C, and D mixed-use development, including replacement housing, at Site 3 for the purposes of NEPA, CEQA, and TRPA. See Mitigation Measure 3.6-11. The same mitigation measure would apply.	Alts A, E = NA Alts B, C, D = No additional mitigation measures would be needed or are feasible to implement.	Alt A = NI Alts B, C, D, E = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
impacts on parking associated with project construction would be temporary in nature and would only occur leading up to 2020 (opening day). Although construction details associated with the mixed-use component, including replacement housing, of each of the build alternatives where it is proposed (Alternatives B, C, and D) are not known at this time; it is anticipated that these alternatives with mixed-use development would meet their needs for a construction staging area on-site, on right-of-way acquired for the project, or through agreement with a private property owner for use of their land. The mixed-use development, including replacement housing, would be subject to all applicable regulations and permit requirements. Construction staging for Alternatives B, C, and D mixed-use development, including replacement housing, at Site 3 would result in the amount of parking at the Heavenly Village Center to be below city parking requirements. Construction staging for Alternatives B, C, and D mixed-use development, including replacement housing, at Sites 1 and 2 would not result in temporary loss of parking beyond the loss of parking located at the businesses that would be displaced, which would no longer be required. There would be no construction activities as part of Alternative A.	related parking environmental consequences such that no additional mitigation measures are needed or feasible to implement.				
Impact 3.6-11: Permanent parking impacts Alternatives B, C, and D transportation improvements would result in the loss of between approximately 40 and 80 parking stalls at multiple businesses and Alternatives B, C, and D mixed-use development, including replacement housing, would result in the loss of between approximately 250 and 310 parking stalls. The loss of parking from these alternatives with mixed-use development, including replacement housing, would not be in addition to the parking losses from the transportation improvements. The amount of parking at Montbleu Resort and	Alts A, E = NI Mitigation Measure 3.6-11 has been incorporated into Alternatives B, C, and D to further reduce to the extent feasible the environmental consequences related to permanent loss of parking.	Alts B, C, D = LTS Alts A, E = NI	**Mitigation Measure 3.6-11: Prepare a detailed parking plan to inform revision of Heavenly Village Center's Use Permit** This mitigation would apply to Alternatives B, C, and D mixed-use development, including replacement housing, at Site 3 for the purposes of NEPA, CEQA, and TRPA. At the time of preparation of the project-level environmental plan for the mixed-use development, including replacement housing, at Site 3, the project applicant shall prepare a parking plan in accordance with	Alts A, E = NA Alts B, C, D = No additional mitigation measures would be needed or are feasible to implement.	Alts B, C, D = LTS Alts A, E = NI

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
Casino would continue to be sufficient to meet city and county standards and the project would provide replacement parking equal to that lost at other businesses. Implementation of Alternatives B, C, and D mixed-use development, including replacement housing, at Sites 1 and 2 would not result in permanent loss of parking at businesses that would be displaced, which would no longer be required. Alternatives B, C, and D mixed-use development, including replacement housing, at Site 3 would cause the amount of parking at the Heavenly Village Center to fall below city parking requirements. Alternatives A and E would not result in any permanent losses of parking.			Section 6.10 of the City of South Lake Tahoe Code. The recommendations including in the parking plan to meet parking demand and achieve City of South Lake Tahoe parking standards would be implemented by the project applicant prior to ground-breaking of the mixed-use development, including replacement housing, at Site 3. The parking plan shall be submitted to the City of South Lake Tahoe, and referred to TRPA as necessary to obtain a use permit for modification of the parking demand ratios at the Heavenly Village Center. It would demonstrate the adequacy of the Heavenly Village Center parking that would remain after displacement of parking behind Raley's by construction of the mixed-use development, including replacement housing, at Site 3. The parking plan must demonstrate the following: ◢ Adequate off-street parking would be provided for the proposed use as determined by a parking plan; ◢ The environmental impact of the use would be lessened by the reduction in parking spaces (City staff may condition the use permit); and ◢ Traffic safety for other vehicles and pedestrians would be enhanced by the lesser requirement. The parking plan may propose a reduction in parking demand ratio at this shopping center from those set forth in City Code Section 6.10 based on a plan that proposes, but would not be limited to, one or more of the following: ◢ A transportation management plan, which would outline transit incentives, such as a shuttle system or free or reduced cost transit passes for tenants/employees.		

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			◢ Additional parking, which could be constructed elsewhere in the project site for the US 50/South Shore Community Revitalization Project. ◢ Establishment of a shared parking facility, in which uses have different peak periods, parking demand would not overlap, and would meet peak demands.		
Impact 3.6-12: Impacts on intersection operations – 2040 (Horizon Year) Under 2040 horizon year conditions, improvements under Alternatives B and D transportation improvements and mixed-use development, including replacement housing, would operate intersections at annual average and summer peak-hour LOS C or better. Under Alternative A, operations at two intersections would be degraded to unacceptable levels. Alternative C transportation improvements and mixed-use development, including replacement housing, would degrade operations at three intersections to unacceptable levels or exacerbate already unacceptable operations. Improvements under Alternative E would operate intersections at annual average and summer peak-hour LOS D or better.	The design features of Alternatives B, D, and E would avoid or minimize the effects on intersection operations in 2040 such that no additional mitigation measures are needed or feasible to implement; Mitigation Measure 3.6-12 has been incorporated into Alternative C to further reduce to the extent feasible the environmental consequences related to impacts on intersection operations in 2040; there would be no mechanism by which to implement or enforce avoidance or mitigation measures to minimize Alternative A impacts on intersection operations in 2040.	Alts B, D, E = LTS Alt A = SU Alt C = S	**Mitigation Measure 3.6-12: Change the eastbound and westbound directional traffic on US 50 pursuant to Mitigation Measure 3.6-2** This mitigation would apply to Alternative C transportation improvements for the purposes of NEPA, CEQA, and TRPA. See Mitigation Measure 3.6-2 above. The same mitigation measure would apply.	Alts B, C, D, E = NA Alt A = There would be no mechanism by which to implement or enforce avoidance or mitigation measures to minimize impacts on intersection operations from Alternative A. Alt C = No additional mitigation measures would be needed or are feasible to implement.	Alts B, C, D, E = LTS Alt A = SU

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
Impact 3.6-13: Impacts on roadway segment operations – 2040 (Horizon Year) Under 2040 horizon year conditions, Alternatives B and D transportation improvements and mixed-use development, including replacement housing, and Alternative E would result in acceptable roadway segment LOS during annual average and summer peak hours. Under Alternative A, one roadway study segment would operate at unacceptable LOS. Under Alternative C transportation improvements and mixed-use development, including replacement housing, three roadway segments would be reduced to unacceptable roadway segment LOS.	The design features of Alternatives B, D, and E would avoid or minimize the environmental consequences related to roadway segment operations in 2040; Mitigation Measure 3.6-13 has been incorporated into Alternative C to further reduce to the extent feasible the environmental consequences related to roadway segment operations in 2040; There would be no mechanism by which to implement or enforce avoidance or mitigation measures to minimize Alternative A impacts on roadway segment operations in 2040.	Alts B, D, E = LTS Alt A = SU Alt C = S	Mitigation Measure 3.6-13: Change the eastbound and westbound directional traffic on US 50 pursuant to Mitigation Measure 3.6-2 This mitigation would apply to Alternative C transportation improvements for the purposes of NEPA, CEQA, and TRPA. See Mitigation Measure 3.6-2 above. The same mitigation measure would apply.	Alts B, D, E = NA Alt A = Adverse effects on roadway segment operations in 2040 from Alternative A could not be reduced because there would be no mechanism by which to implement or enforce avoidance or mitigation measures. Alt C = Mitigation Measure 3.6-13 has been incorporated into Alternative C, but there are no other feasible mitigation, avoidance, or minimization measures that could further reduce to the extent feasible the environmental consequences related to roadway segment operations in 2040.	Alts B, D, E = LTS Alts A, C = SU
Impact 3.6-14: Impacts on vehicle miles of travel – 2040 (Horizon Year) Realignment of US 50 to create the opportunity for community revitalization in the Stateline/South Lake Tahoe tourist core is included in the approved RTP (originally named Alternative 3 in the 2012 RTP/SCS EIR/EIS) and the RTP would have a net beneficial effect by reducing regional per capita VMT. The opportunity for community revitalization would be a source of reduced VMT, because visitor uses could be concentrated in a compact, pedestrian/bicycle/transit-served urban core,	The design features of Alternatives A, B, C, D, and E would avoid or minimize the impacts on VMT in 2040 such that no additional mitigation measures are needed or feasible to implement	Alts B, C, D = B Alts A, E= LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	Alts A, B, C, D, E = NA	Alts B, C, D = B Alts A, E= LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
decreasing the need to take vehicle trips to reach some tourism destinations (e.g., hotel to restaurant or entertainment venue trip, retail shopping trips). The realignment, itself, would cause a small, localized increase in VMT for through traffic with Alternatives B, C, and D, because the route of US 50 would be slightly longer around the tourist core than through it; however, its mobility enhancements and support of planned development in an urban center would be consistent with attaining the regional total VMT threshold (as required by the Lake Tahoe Regional Plan and evaluated in the Regional Plan Update EIS).The realignment of US 50, would remain consistent with the VMT per capita goal of RTP/SCS EIR/EIS Alternative 3 and would support achievement of the Regional Plan VMT requirements, so the beneficial impact of the RTP on regional VMT would be sustained. Alternatives B, C, and D would help implement the RTP's beneficial impact on regional VMT. Alternative A would affect VMT because it would not support revitalization of the tourist core and would retain the same length of US 50 in the corridor. For Alternative E, the existing roadway alignment would remain the same with separation of pedestrians on an elevated structure. It would not support revitalization in the tourist core as effectively as the realignment alternatives and the through-traffic trip length on US 50 would be unchanged.					
Impact 3.6-15: Impacts on bicycle and pedestrian facilities – 2040 (Horizon Year) Because of their design, Alternatives B, C, D, and E would not disrupt or interfere with existing or planned bicycle/pedestrian facilities; rather, they would enhance the existing infrastructure and create a bicycle and pedestrian network with enhanced connectivity. Furthermore, Alternatives B, C, D, and E would not create an inconsistency with any adopted policies related to bicycle or pedestrian systems. No modifications to the existing	Alt A = NI The design features of Alternatives B, C, D, and E would avoid or minimize the impacts on bicycle and pedestrian facilities in 2040 such that no additional mitigation	Alts B, C, D, E = B Alt A = NI	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	Alts B, C, D, E = NA Alt A = NI	Alts B, C, D, E = B Alt A = NI

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
bicycle or pedestrian infrastructure would occur under Alternative A.	measures are needed or feasible to implement.				
Impact 3.6-16: Impacts on transit –2040 (Horizon Year) Alternatives B, C, D, and E would not disrupt or interfere with existing transit facilities and would enhance the existing transit infrastructure. Furthermore, none of the build alternatives would create an inconsistency with any adopted policies related to transit systems. The overall increased travel time under Alternative A would be minimal.	The design features of Alternatives A, B, C, D, and E would avoid or minimize the impacts on transit in the 2040 horizon year such that no additional mitigation measures are needed or feasible to implement	Alts B, C, D, E = B Alt A = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alts B, C, D, E = B Alt A = LTS
Impact 3.6-17: Construction-related traffic impacts – 2040 (Horizon Year) Construction impacts are temporary in nature and would only occur leading up to opening day for each of the alternatives. However, the mixed-use development for each of the build alternatives where it is proposed (Alternatives B, C, and D), could be constructed following the 2020 opening day. Construction of the mixed-use development as part of the build alternatives could result in construction-related traffic and temporary disruption to traffic circulation in the area of construction. Construction details associated with the mixed-use development are not known at this time and as part of approval and permitting process, any identified impacts would be addressed. The mixed-use development would be subject to all applicable regulations and permit requirements. Because there is no mixed-use development included for Alternative A or Alternative E, there would be no construction during the 2040 (horizon year) scenario.	Alts A, B, C, D, E = NI	Alts A, B, C, D, E = NI	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alts A, B, C, D, E = NI

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
Impact 3.6-18: Impacts on vehicular, bicycle, and pedestrian safety – 2040 (Horizon Year) Alternatives B, C, D, and E would enhance the existing infrastructure and improve safety throughout the vehicular, bicycle, and pedestrian network within the study area. No modifications to the existing vehicular, bicycle, or pedestrian infrastructure would occur under Alternative A; however, vehicular traffic would increase within the study area thus impacting bicycle safety and the existing above state average traffic accidents and injuries occurring at the US 50/Lake Parkway Loop intersection.	The design features of Alternatives B, C, D, and E would avoid or minimize the impacts on vehicular, bicycle, and pedestrian safety in 2040; there would be no mechanism by which to implement or enforce avoidance or mitigation measures to minimize impacts on vehicular, bicycle, and pedestrian safety in 2040 from Alternative A.	Alts B, C, D, E = B Alt A = SU	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	Alts B, C, D, E = NA Adverse effects on vehicular, bicycle, and pedestrian safety in 2040 from Alternative A could not be reduced because there would be no mechanism by which to implement or enforce avoidance or mitigation measures.	Alts B, C, D, E = B Alt A = SU
Impact 3.6-19: Impacts on emergency access – 2040 (Horizon Year) Alternatives B and D would reduce congestion along existing US 50 and thereby improve long-term emergency access within the study area. Alternative E would also reduce congestion along existing US 50 and additionally does not include any mixed-use development that would add trips to the roadway network and potentially affect emergency access during the construction phase. Alternative A would result in traffic conditions worsening during the summer peak along US 50 between Pioneer Trail and Lake Parkway resulting in impacts on emergency access. Alternative C would result in increased congestion and reduced operational emergency access to a segment of US 50 due to the new circulation patterns, impeding emergency access.	The design features of Alternatives B, D, and E would avoid or minimize the environmental consequences related to emergency access in 2040 such that no additional mitigation measures are needed or feasible to implement; Mitigation Measure 3.6-19 has been incorporated into Alternative C to further reduce to the extent feasible the environmental consequences related to impacts on emergency access in 2040; there would be no mechanism by	Alts B, D = LTS Alt E = B Alt A = SU Alt C = S	Mitigation Measure 3.6-19: Change the eastbound and westbound directional traffic on US 50 pursuant to Mitigation Measure 3.6-2 This mitigation would apply to Alternative C transportation improvements for the purposes of NEPA, CEQA, and TRPA. See Mitigation Measure 3.6-2 above. The same mitigation measure would apply.	Alts B, D, E = NA Alt A = Adverse effects on emergency access in 2040 from Alternative A could not be reduced because there would be no mechanism by which to implement or enforce avoidance or mitigation measures. Alt C = Mitigation Measure 3.6-19 has been incorporated into Alternative C, but there are no other feasible mitigation, avoidance, or minimization measures that could further reduce to the extent feasible the	Alts B, C, D = LTS Alt E = B Alts A, C = SU

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
	which to implement or enforce avoidance or mitigation measures to minimize impacts on vehicular, bicycle, and pedestrian safety in 2040 from Alternative A.			environmental consequences related to emergency access in 2040.	
Impact 3.6-20: Daily vehicle trip ends (DVTE) impacts – 2040 (Horizon Year) Alternatives B, C, and D transportation improvements would not generate any additional DVTEs. However, these three alternatives would all generate greater than 200 net new DVTEs with the implementation of the mixed-use development. Because the displaced housing would be replaced at a one for one basis with the replacement housing component of these alternatives, the replacement housing would not generate any net new DVTEs. Alternative A would include no modifications to the existing conditions. Alternative E would not generate any additional DVTEs.	Alt A = NI Mitigation Measure 3.6-20 has been incorporated into Alternatives B, C and D to further reduce to the extent feasible the environmental consequences related to generating additional daily vehicle trip ends; The design features of Alternative E would avoid or minimize the environmental consequences related to daily vehicle trip ends in 2040 such that no additional mitigation measures are needed or feasible to implement.	Alts B, C, D, E = LTS Alt A = NI	**Mitigation Measure 3.6-20: Mitigate DTVE impacts through Air Quality Mitigation Fund Contribution** This mitigation would apply to Alternatives B, C, and D mixed-use development for the purposes of NEPA, CEQA, and TRPA. The project proponent shall contribute to the Air Quality Mitigation Fund in accordance with Chapter 65 – Traffic and Air Quality Mitigation Program of the TRPA Code. The air quality mitigation fee shall be assessed in accordance with the mitigation fee schedule in the TRPA Rules of Procedure. Fees generated by the air quality mitigation fee are used to support programs/improvements that reduce VMT, improve air quality, and encourage alternative modes of transportation.	Alts A, E = NA Alts B, C, D = No additional mitigation measures would be needed or are feasible to implement.	Alts B, C, D, E = LTS Alt A = NI
3.7 Visual Resources/Aesthetics					
Impact 3.7-1: Degradation of scenic quality and visual character Build Alternatives B through E would involve physical changes within the project site that would be visually evident to the public. Depending on the nature and intensity of project-related	Alt A = NI Mitigation Measures 3.7-1a and 3.7-1b have been incorporated into Alternative B, C, D, and E to	Alt A = NI Alts B, C, D, E = S	**Mitigation Measure 3.7-1a: Mitigate for Changes in Visual Character from Pioneer Trail to Montreal Road** This mitigation measure would apply to the transportation improvements included in Alternatives B, C, and D for the purposes of NEPA, CEQA, and TRPA.	Alt A = NI Alts B, C, D, and E = Mitigation Measures 3.7-1a and 3.7-1b have been incorporated into	Alt A = NI Alts B, C, D, E = SU

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
changes, they could potentially degrade the existing visual quality or character of the site and its surroundings, including a potential decrease in the TRPA Travel Route rating of roadway travel units or inconsistency with the TRPA SQIP, TRPA Design Review Guidelines, or applicable height and design standards. Under Alternatives B, C, and D, the existing four-lane US 50 through the tourist core would be reconfigured as a two-lane roadway. Lake Parkway and Montreal Road would be developed as the realigned US 50, either as a four-lane or two-lane roadway, depending on the alternative. A new section of roadway would be built from Montreal Road at Fern Road connecting to existing US 50 near what is now the intersection of US 50 and Pioneer Trail through an existing neighborhood. Under Alternative E, no changes to existing roadways would occur, except the removal of the signalized at-grade pedestrian scramble between Montbleu Resort Casino and Spa and the Hard Rock Hotel and Casino. Instead, an elevated pedestrian skywalk structure would be constructed over US 50 through the Casino Core from Stateline Avenue to the north end of the Montbleu Resort Casino. Most effects on scenic quality from implementation of Alternatives B, C, and D would result in a mix of impacts either because no changes in visual conditions would occur, changes that would occur would be visually beneficial, or changes would be compatible with existing conditions. Proposals for the mixed-use development projects would have to undergo their own environmental review once they are defined and submitted for permitting, so it is unlikely that there would be a significant difference between the build alternatives with the transportation improvements alone or with the mixed-use development. Development of Alternative E would result in scenic quality impacts, because it would cause a decrease in the travel route rating for Roadway Travel Unit #32 due to a decline in scenic	further reduce to the extent feasible the environmental consequences related to the degradation of scenic quality and visual character.		Realigning US 50 through the existing Rocky Point residential neighborhood between Pioneer Trail and Montreal Road would cause substantial changes in visual conditions. Realigned US 50 would be designed in accordance with all applicable design standards and guidelines and thus would exhibit a high level of visual quality; however, it would result in significant change in visual character on the neighborhood. The addition of noise barriers could also contribute to the adverse change in visual character. Mitigation Measure 3.7-1b: Mitigate for Changes in Visual Character on Roadway Travel Unit #32 This mitigation measure would apply to Alternative E for purposes of NEPA, CEQA, and TRPA. The elevated skywalk would be a massive, new, human-made feature within Roadway Travel Unit #32 and would be seen by motorists on US 50 traveling in either direction as they approach the skywalk and they travel beneath it. The visual dominance of the skywalk would cause a decrease in the travel route rating from 13.5 to 10 for Roadway Travel Unit #32, indicating an adverse effect on scenic quality. In views from the road, the skywalk would decrease the intactness and unity of views from the road, and the visual presence of the skywalk structure and its enclosure of the highway would substantially degrade the character of the roadway corridor as experienced by motorists. To mitigate for this impact, TTD, TRPA, and FHWA could modify the design the elevated skywalk feature to reduce its visual mass by converting it to more narrow overhead pedestrian walkway crossings only. This design modification would avoid impacts on the intactness and	Alternatives B, C, and D, but there are no other feasible mitigation, avoidance, or minimization measures that could further reduce to the extent feasible the environmental consequences related to scenic quality and visual character.	

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
quality from the covering of the road with a pedestrian structure. Effects on visual character associated with Alternatives B, C, and D within the residential neighborhood between Montreal Road and Pioneer Trail and from Alternative E within the tourist core would result in the greatest impacts, because they would substantially degrade visual character in the immediate area and it would not be feasible to reduce the impact to a less-than-significant level for the purposes of CEQA and TRPA.			unity of views from the road, and would reduce or eliminate degradation of the character of the roadway corridor as experienced by motorists.		
Impact 3.7-2: Interference with or disruption of scenic vistas or scenic resources Vertical components of the project, such as supports for traffic signals and light standards, have insufficient mass to substantially disrupt scenic views. However, large objects, depending on their location and the location from which they are viewed, could interfere with scenic views. Alternatives B, C, and D include construction of a pedestrian bridge over realigned US 50 (on Lake Parkway) near the California/Nevada state line. Also, in the neighborhood east of Pioneer Trail, sound walls may be needed along the new section of US 50 to reduce traffic noise on residential properties. Alternative E would involve constructing an elevated pedestrian skywalk over US 50. Large, elevated structures have the potential to block or disrupt scenic vistas or views of individual scenic resources. Implementation of Alternatives B, C, and D would result in minimal impacts on scenic vistas and views of identified scenic resources because no such views would be affected by project features. Any new mixed-use development that might occur with Alternatives B, C, and D would be required by the TRPA Code of Ordinances to avoid impacts to scenic vistas and scenic resources through building design and orientation. The skywalk structure that would be built with Alternative E would interfere with views of two TRPA-listed scenic resources. Alternative A would result in no changes.	Alt A = NI The design features of Alternatives B, C, and D would avoid or minimize the impacts on scenic vistas and scenic resources such that no additional mitigation measures are needed or feasible to implement; Mitigation Measure3.7-2 has been incorporated into Alternative E to further reduce to the extent feasible impacts on scenic vistas and scenic resources.	Alt A = NI Alts B, C, D = LTS Alt E = S	**Mitigation Measure 3.7-2: Mitigate for Decrease in Visual Quality Rating for Scenic Resources 32.1 and 32.3** This mitigation measure would apply to Alternative E for purposes of NEPA, CEQA, and TRPA. The proposed skywalk structure that would be constructed as part of Alternative E would have the potential to affect views of scenic vistas and scenic resources, by interfering with views of scenic resources 32.1 and 32.3. The skywalk would cause a decrease in the Scenic Quality rating of these TRPA-listed scenic resources. To mitigate for this impact, TTD, TRPA, and FHWA could modify the design of the elevated skywalk feature to reduce its visual mass, as described in the Mitigation Measure 3.7-1b. This design modification would reduce the walkway's interference with views 32.1 and 32.3 and avoid decreasing the Scenic Quality rating of these scenic resources.	Alts A, B, C, D = NA Alt E = Mitigation Measure 3.7-2 has been incorporated into Alternative E, but there are no other feasible mitigation, avoidance, or minimization measures that could further reduce to the extent feasible the environmental consequences related to scenic vistas and scenic resources.	Alt A = NI Alts B, C, D = LTS Alt E = SU

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
Impact 3.7-3: Increased light and glare New sources of light can result from exterior lighting or from the headlights of vehicles, while glare results from high-shine surfaces such as building windows (glass) and high-gloss painted surfaces. Alternatives B, C, and D would include new safety lighting (street lights) at intersections of local streets with realigned US 50. The introduction of a new source of light during nighttime hours in these urban settings would not substantially alter the amount of illumination, recognizing the existing night lighting of roadways, parking lots, and commercial areas. Alternatives B, C, and D would also route the western segment of realigned US 50 through an existing residential neighborhood east of Pioneer Trail. The headlights of traffic on the realigned highway could potentially affect residents whose homes border on the realigned US 50. Mixed-use development that could be part of Alternatives B, C, and D would consist of new buildings and new exterior lighting. Standard design practices and regulations in local ordinances and planning documents pertaining to fixed sources of lighting would limit spillover illumination. Alternatives B, C, D, and E would have a less-than-significant impact from fixed sources of light and glare. Alternatives B, C, and D would have a potentially significant impact from headlights of vehicles shining onto residential properties bordering realigned US 50 in the Rocky Point neighborhood. Alternative A would have no new impacts.	Alt A = NI Mitigation Measure 3.7-3 has been incorporated into Alternatives B, C, and D to further reduce to the extent feasible the light and glare impacts. The design features of Alternative E would avoid or minimize light and glare impacts such that no additional mitigation measures are needed or feasible to implement.	Alt A = NI Alts B, C, D = PS Alt E = LTS	Mitigation Measure 3.7-3: Mitigate for Headlights Shining onto Residential Properties. This mitigation measure would apply to the Alternatives B, C, and D transportation improvements for the purposes of NEPA, CEQA, and TRPA. Sound barriers (walls or other noise abatement measures) would be necessary to control traffic noise within the Rocky Point residential neighborhood that realigned US 50 would pass through (see Mitigation Measures 3.15-3a, 3.15-3b, and 3.15-3c in Section 3.15, "Noise and Vibration"). A secondary effect of the noise abatement measures would be to block vehicle headlights from intruding onto residential properties. The barriers should be placed along realigned US 50 where private residences border the realigned highway. Such barriers should be constructed of solid material (e.g., wood, brick, adobe, an earthen berm, boulders, or combination thereof). All barriers will be designed to blend into the restored landscape along the highway, to the extent feasible. Ensuring a character consistent with the surrounding area may involve the use of strategically placed boulders, native trees, or other vegetation; the addition of special materials (e.g., wood or stonework) on the façade of the sound wall; and/or a sound wall that is covered in vegetation. The location and design of sound barriers shall adhere to any space requirements for snow removal on the adjacent roadway.	Alts A, E = NA Alts B, C, D = No additional mitigation measures would be needed or are feasible to implement.	Alt A = NI Alts B, C, D, E = LTS
3.8 Cultural Resources					
Impact 3.8-1: Change in the significance of historical resources The build alternatives would not affect the NRHP-listed Friday's Station, NRHP-eligible Pony Express Rider statue, or NRHP-eligible site 26 Do 451/KBG-4. The build alternatives would not	Alt A = No effect Alts B, C, D, E = NA	Alt A = NI Alts B, C, D, E = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement	NA	Alt A = NI Alts B, C, D, E = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
physically alter the resources, change the properties' uses or physical features, or otherwise diminish those aspects of integrity that enable the resources to convey their historical significance.			for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.		
Impact 3.8-2: Disturb unique archaeological resources Construction and excavation activities associated with the build alternatives could result in sediment disturbance and removal, which can adversely affect archaeological resources. There are no known archaeological resources that would be damaged or destroyed by the build alternatives (Alternatives B, C, D, and E). Because Alternatives B, C, D, and E would include excavation and other ground-disturbing activities, these alternatives could result in adverse physical effects on unknown archaeological resources.	Alt A = NI Mitigation Measures 3.8-2a, 3.8-2b, and 3.8-2c have been incorporated into Alternatives B, C, D, and E to further reduce to the extent feasible the environmental consequences related to unknown archaeological resources such that there would be No Adverse Effect on unknown archaeological resources; The design features of Alternatives B, C, D, and E would avoid or minimize the environmental consequences related to known archaeological resources such that there would be No Effect on known archaeological resources.	Alt A = NI Alts B, C, D, E = PS	Mitigation Measure 3.8-2a: Install an Environmentally Sensitive Area fence The following mitigation would apply to transportation improvements and mixed-use development, including replacement housing, for Alternatives B, C, and D, and Alternative E for the purposes of NEPA, CEQA, and TRPA. An Environmentally Sensitive Area (ESA) fence shall be installed to protect the unevaluated portion of the Johnson's Cut-Off/Pony Express Trail/Lincoln Highway alignment north of the project area. The fence shall be installed from the entrance to Friday's Station on US 50 to a point 400 feet east of the Johnson's Cut-Off/Pony Express Trail/Lincoln Highway segment. A sign shall be installed at the east end of the fence to exclude construction personnel access from the area behind the fence. The fence shall be installed in coordination with a qualified archaeologist prior to ground-disturbing activities and shall remain in place until after the project has been completed. The condition of the fence shall be monitored periodically during the course of construction by the archaeologist who supervised its installation. Mitigation Measure 3.8-2b: Conduct archaeological monitoring The following mitigation was included in the RTP/SCS EIR/EIS, which included the US 50/South Shore Community Revitalization Project as one of the TTD Capital Improvement Program projects in the RTP. This mitigation would apply to transportation improvements and mixed-use development, including replacement	Alt A = NA Alts B, C, D, E = No additional mitigation measures would be needed or are feasible to implement.	Alt A = NI Alts B, C, D, E = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			housing, for Alternatives B, C, and D, and Alternative E for the purposes of NEPA, CEQA, and TRPA. In accordance with existing regulations, for ground-disturbing activities that have the potential to impact archaeological remains and that will occur in an area that has been determined by a qualified archaeologist to be sensitive (locations where previous disturbance has not occurred) for the presence of buried archaeological remains, the project proponent (e.g., TTD, local county, Caltrans, NDOT) shall require the construction contractor to retain a qualified archaeologist to monitor those activities. Archaeological monitoring shall be conducted in areas where there is likelihood that archaeological remains may be discovered but where those remains are not visible on the surface. Monitoring will not be considered a substitute for efforts to identify and evaluate cultural resources prior to project initiation. Where necessary, the project proponent shall seek Native American input and consultation. Mitigation Measure 3.8-2c: Stop work in the event of an archaeological discovery The following mitigation was included in the RTP/SCS EIR/EIS, which included the US 50/South Shore Community Revitalization Project as one of the TTD Capital Improvement Program projects in the RTP. This mitigation would apply to transportation improvements and mixed-use development, including replacement housing, for Alternatives B, C, and D, and Alternative E for the purposes of NEPA, CEQA, and TRPA. If potentially significant cultural resources are discovered during ground-disturbing activities associated with individual project preparation, construction, or completion, the project proponent shall require the construction		

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			contractor to stop work in that area until a qualified archaeologist can assess the significance of the find, and, if necessary, develop appropriate treatment measures in consultation with TRPA and other appropriate agencies and interested parties. A qualified archaeologist shall follow accepted professional standards in recording any find including submittal of the standard Department of Parks and Recreation (DPR) Primary Record forms (Form DPR 523) and location information to the California Historical Resources Information Center office (North Central Information Center) for California projects. The consulting archaeologist shall also evaluate such resources for significance per California Register of Historical Resources eligibility criteria (PRC Section 5024.1; Title 14 CCR Section 4852) for California projects. Consultation with the Nevada State Historic Preservation Officer shall be undertaken for Nevada projects. If the archaeologist determines that the find does not meet the TRPA standards of significance for cultural resources, construction may proceed. If the archaeologist determines that further information is needed to evaluate significance, the lead agency shall be notified and a data recovery plan shall be prepared.		
Impact 3.8-3: Accidental discovery of human remains Construction and excavation activities associated with development activities may result in sediment disturbance and removal, which can unearth human remains if they are present. Because the project would allow excavation and other ground-disturbing activities, adverse physical effects on undiscovered or unrecorded human remains could occur.	Alt A = NI Mitigation Measure 3.8-3 has been incorporated into Alternatives B, C, D, and E to further reduce to the extent feasible the environmental consequences related to disturbance of	Alt A = NI Alts B, C, D, E = PS	Mitigation Measure 3.8-3: Stop work if human remains are discovered The following mitigation was included in the RTP/SCS EIR/EIS, which included the U.S. 50/South Shore Community Revitalization Project as one of the TTD Capital Improvement Program projects in the RTP. This mitigation would apply to transportation improvements and mixed-use development, including replacement	Alt A = NA Alts B, C, D = No additional mitigation measures would be needed or are feasible to implement.	Alt A = NI Alts B, C, D, E = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
	undiscovered or unrecorded human remains.		housing, for Alternatives B, C, and D, and Alternative E for the purposes of NEPA, CEQA, and TRPA. In accordance with existing regulations, if any human remains are discovered or recognized in any location on an individual project site, the project proponent will ensure that there will be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until: a) The applicable County Coroner/Sheriff has been informed and has determined that no investigation of the cause of death is required; and b) If the remains are of Native American origin, 1. The descendants of the deceased Native Americans have made a recommendation to the landowner or the person responsible for the excavation work, for the means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or 2. The Native American Heritage Commission was unable to identify a descendant or the descendant failed to make a recommendation within 24 hours after being notified by the commission. 3. The site shall be flagged and avoided during construction. c) If human remains, grave goods, or items of cultural patrimony (as defined in the Native American Graves Protection and Repatriation Act [NAGPRA]) are discovered during ground-disturbing activities on Federal Property, work will cease until the provisions of NAGPRA are met.		

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
Impact 3.8-4: Disturb tribal cultural resources Construction and excavation activities associated with the build alternatives could result in sediment disturbance and removal, which can adversely affect archaeological resources, including tribal cultural resources. There are no known tribal cultural resources that would be damaged or destroyed by Alternatives B, C, D, and E. Because Alternatives B, C, D, and E would include excavation and other ground-disturbing activities, these alternatives could result in adverse physical effects on unknown tribal cultural resources.	Alt A = NI Mitigation Measures 3.8-4a and 3.8-4b have been incorporated into Alternatives B, C, D, and E to further reduce to the extent feasible environmental consequences related to unknown tribal cultural resources. The design features of Alternatives B, C, D, and E would avoid or minimize environmental consequences related to known tribal cultural resources.	Alt A = NI Alts B, C, D, E = PS	Mitigation Measure 3.8-4a: Conduct tribal cultural resources monitoring This mitigation would apply to transportation improvements and mixed-use development, including replacement housing, for Alternatives B, C, and D, and Alternative E for the purposes of NEPA, CEQA, and TRPA. In accordance with existing regulations, for ground-disturbing activities that have the potential to impact tribal cultural resources, such as archaeological remains, and that will occur in an area that has been determined by a qualified archaeologist to be sensitive (locations where previous disturbance has not occurred) for the presence of buried tribal cultural resource remains, the project proponent (e.g., TTD, local county, Caltrans, NDOT) shall require the construction contractor to retain a qualified archaeologist to monitor those activities. Archaeological monitoring shall be conducted in areas where there is likelihood that tribal cultural resources, such as archaeological remains, may be discovered but where those remains are not visible on the surface. Monitoring will not be considered a substitute for efforts to identify and evaluate tribal cultural resources prior to project initiation. Where necessary, the project proponent shall seek Native American input and consultation. Mitigation Measure 3.8-4b: Stop work in the event of a tribal cultural resource discovery This mitigation would apply to transportation improvements and mixed-use development, including replacement housing, for Alternatives B, C, and D, and Alternative E for the purposes of NEPA, CEQA, and TRPA. If potentially significant tribal cultural resources are discovered during ground-disturbing activities associated with individual project preparation, construction, or	Alt A = NA Alts B, C, D = No additional mitigation measures would be needed or are feasible to implement.	Alt A = NI Alts B, C, D, E = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			completion, the project proponent shall require the construction contractor to stop work in that area until a qualified archaeologist can assess the significance of the find, and, if necessary, develop appropriate treatment measures in consultation with TRPA and other appropriate agencies and interested parties. A qualified archaeologist shall follow accepted professional standards in recording any find including submittal of the standard DPR Primary Record forms (Form DPR 523) and location information to the California Historical Resources Information Center office (North Central Information Center) for California projects. The consulting archaeologist shall also evaluate such resources for significance per California Register of Historical Resources eligibility criteria (PRC Section 5024.1; Title 14 CCR Section 4852). Consultation with the Nevada State Historic Preservation Officer and the Washoe Tribe of Nevada and California shall be undertaken for the portions of the project within Nevada. Consultation with the California Native American Heritage Commission and the Washoe Tribe of Nevada and California shall be undertaken for the portions of the project in California. If the archaeologist, in consultation with the Nevada State Historic Preservation Officer, California Native American Heritage Commission, and Washoe Tribe of Nevada and California, determines that the find does not meet the PRC Section 21074 definition for tribal cultural resources, then construction may proceed. If the archaeologist determines that further information is needed to evaluate significance, the lead agency shall be notified and a data recovery plan shall be prepared.		

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
3.9 Floodplains					
Impact 3.9-1: 100-year flood hazard and floodplain impacts Alternatives B, C, and D would require the extension of the US 50 culvert over Edgewood Creek and the Lake Parkway culvert over Golf Course Creek. This expansion would result in an encroachment into the 100-year floodplain of both streams; however, compliance with the Douglas County Floodplain Development Permit would require that the encroachment would not result in an increase in the Base Flood Elevation and would not adversely affect the direction or velocity of flood waters.	Alt A, = NI The design features of Alternatives B, C, D, and E would avoid or minimize significant encroachment into the 100-year floodplain of any waterbody.	Alts A, E = NI Alts B, C, D = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alts A, E = NI Alts B, C, D = LTS
3.10 Water Quality and Stormwater Runoff					
Impact 3.10-1: Potential for degradation of surface water quality due to construction activities Alternatives B, C, and D would include construction and operational activities that could result in contaminants being carried into storm drains and adjacent surface waters. Degradation of surface water quality could result from construction activities and pollutant loading in surface runoff. Because TRPA, Lahontan RWQCB, and NDEP regulations are in place to minimize erosion and transport of sediment and other pollutants during construction, and appropriate project-specific measures would be defined to secure necessary permits and approvals, project-related impacts would be minimized and would not result in substantial adverse effects on water quality. Alternative E could require construction dewatering; however, compliance with Lahontan RWQCB, NDEP, and TRPA regulations would minimize the potential threat to water quality. Alternative A is the no build alternative and would not impact these resources.	Alt A = NI The design features of Alternatives B, C, D, and E would avoid or minimize the degradation of surface water quality from construction activities such that no additional mitigation measures are needed or feasible to implement.	Alt A = NI Alts B, C, D, E = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alt A = NI Alts B, C, D, E = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
Impact 3.10-2: Potential for degradation of surface water quality due to operational activities TRPA, Lahontan RWQCB, and NDEP regulations require the installation and maintenance of water quality BMPs, which would minimize the potential water quality effects of the transportation improvements. Also, TRPA Code provisions would require fertilizer management and snow storage BMPs to prevent potential adverse effect from these activities. In addition, Alternative B, C, and D include several water quality improvements that would resolve preexisting detrimental conditions within the project site and add supplemental capacity to water quality treatment basins above required volumes. Alternative E would minimize the potential effects to water quality by implementing required stormwater infrastructure. Alternatives A is the no build alternative and would have no impact relative to these resources.	Alt A = NI The design features of Alternatives B, C, D, and E would avoid or minimize the degradation of surface water quality from operations such that no additional mitigation measures are needed or feasible to implement.	Alt A = NI Alts B, C, D = B Alt E = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alt A = NI Alts B, C, D = B Alt E = LTS
Impact 3.10-3: Stormwater runoff Alternatives B, C, and D would create an increase in impervious surfaces: 5.47 to 7.62 acres for Alternative B; 1.06 acres for Alternative C; and 5.76 to 7.91 acres for Alternative D. The project would be required to comply with stringent SWRCB, Lahontan RWQCB, NDEP, and TRPA post-construction stormwater controls. Storage, infiltration, and treatment measures are required to minimize runoff flows and volumes and any stormwater discharge would be required to comply with Lahontan RWQCB, NDEP, and TRPA water quality standards and the Lake Tahoe TMDL. Because the implementation of these alternatives could require use of existing stormwater management infrastructure (Rocky Point stormwater easement parcels and Fern Road stormwater basins) for transportation improvements and/or mixed-use development, an impact on stormwater runoff management is recognized at this time, which would be mitigated by replacing	Alts A, E = NI Mitigation Measure 3.10-3 have been incorporated into Alternatives B, C, and D to further reduce to the extent feasible the environmental consequences related to stormwater runoff.	Alts A, E = NI Alts B, C, D = S	**Mitigation Measure 3.10-3: Protect functionality of Rocky Point Stormwater Improvements** This mitigation measure applies to Alternatives B, C, and D for the purposes of NEPA, CEQA, and TRPA. The project proponent shall demonstrate that all Rocky Point Stormwater Improvements continue to meet the goals for which they were established, including meeting or exceeding 6.4 pounds of sediment reduction per State of California dollar spent on site improvements. If the functionality of the Rocky Point property and facilities cannot be maintained, the project design would be modified to replace these facilities with land and infrastructure that is at least as effective as the current facilities, or more effective. In the event that any portion of the project encroaches on the existing City of South Lake Tahoe stormwater basins at Fern Road, these basins would be reconstructed in place or replaced in-kind within	Alts A, E = NA Alts B, C, D = No additional mitigation measures would be needed or are feasible to implement.	Alts A, E = NI Alts B, C, D = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
affected facilities with equivalently or more effective stormwater infrastructure, as defined during detailed project design. Alternatives A and E would not result in changes to runoff volumes or stormwater infrastructure and would therefore have no impact relative to these resources.			available right-of-way. The net result would be the maintenance of existing stormwater facilities or the replacement of affected facilities with equivalently or more effective stormwater management land and infrastructure. The specific location and design of the replacement infrastructure would be defined during detailed design development.		
Impact 3.10-4: Potential to affect groundwater through infiltration of polluted water or during excavation activities Alternatives B, C, and D have the potential to affect groundwater through infiltration of polluted stormwater runoff in areas of shallow groundwater; however, this potential would be minimized through compliance with TRPA discharge limits and installation of water quality BMPs. Although Alternatives B, C, and D could involve excavation or construction activities that intercept groundwater, these activities would occur in accordance with TRPA Code requirements and would not alter the flow or direction of groundwater. Finally, although the project site is located near several drinking water wells, the land uses and activities proposed by the project present a minimal threat to these resources. Alternative E also has the potential to intercept groundwater during excavation activities; however, all excavation would occur in accordance with TRPA regulations and would not alter the flow or direction of groundwater. Alternative A is the no-build alternative and would have no impact on groundwater resources.	Alt A = NI The design features of Alternatives B, C, D, and E would avoid or minimize the effects on groundwater such that no additional mitigation measures are needed of feasible to implement.	Alt A = NI Alts B, C, D, E = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alt A = NI Alts B, C, D, E = LTS
3.11 Geology, Soils, Land Capability, and Coverage					
Impact 3.11-1: Soil compaction and land coverage Implementation of Alternatives B, C, and D would result in an increase in land coverage within the project site limits: for Alternative B, between 5.47 and 7.62 acres; for Alternative C, 1.06 acres; and for Alternative D, between 5.76 and 7.91	Alts A, E = NI The design features of Alternatives B, C, and D would avoid or minimize the soil compaction and	Alts A, E = NI Alts B, C, D = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alts A, E = NI Alts B, C, D = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
acres. Because the project would comply with TRPA land coverage regulations, including mitigation of disturbances in LCD 1b at a ratio of 1.5:1, TRPA permit requirements (e.g., SWPPP, BMPs), and (for mixed-use development, including replacement housing) transfer of excess allowable land coverage, there would be minimal potential to create an adverse effect related to land coverage. Alternatives A and E would not result in changes to TRPA-related land coverage.	land coverage environmental consequences such that no additional mitigation measures are needed or feasible to implement.				
Impact 3.11-2: Increased erosion and alteration of topography during construction During construction, transportation improvements and replacement housing included in Alternatives B, C, D, and Alternative E would require ground disturbance and soil exposure, which could result in increased erosion and alteration of the existing topography. The total area of temporary and permanent disturbance (including areas that are currently developed or disturbed) would be 56.49 acres for Alternative B, 52.20 acres for Alternative C, 52.39 acres for Alternative D, and 0.79 acre for Alternative E. Because the project site is located in an urban environment, much of the project site has been developed or extensively disturbed. Topographic changes resulting from the project would be minimized and would be consistent with the existing urban environment. The potential for erosion and sediment movement would be minimized through compliance with Lahontan RWQCB and TRPA permit conditions and regulations. Alternative A would result in no changes to existing conditions related to erosion and alteration of topography.	Alt A = NI The design features of Alternatives B, C, D, and E would avoid or minimize the erosion and alteration of topography environmental consequences such that no additional mitigation measures are needed or feasible to implement.	Alt A = NI Alts B, C, D, E = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alt A = NI Alts B, C, D, E = LTS
Impact 3.11-3: Exposure to strong seismic shaking, liquefaction, or seiche inundation hazards The project site is located in a seismically-active area and contains soils that could be subject to liquefaction under	Alt A = NI The design features of Alternatives B, C, D, and E would avoid or minimize	Alt A = NI Alts B, C, D, E = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement	NA	Alt A = NI Alts B, C, D, E = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
saturated conditions. All transportation improvement components of Alternatives B, C, and D would be designed to meet California Department of Transportation (Caltrans) and Nevada Department of Transportation (NDOT) seismic standards and state-specific, seismic design codes. The construction of the pedestrian bridge in Alternatives B, C, and D would require deep excavation and construction of footings in soils that could be subject to liquefaction. These structures would be subject to rigorous highway safety design standards, which would minimize the potential for seismic hazards. Implementation of Alternatives B, C, and D transportation improvements would result in the displacement of housing units that are now outside of the inundation area of a seismically induced seiche wave. Implementation of Alternatives B, C, and D mixed-use development, including replacement housing, would also not have the potential to increase the exposure of people and property to inundation by a seismically-induced seiche wave, because the mixed-use sites are outside the inundation area. Alternative E would be subject to the same design standards described for Alternatives B, C, and D and would not alter the level of exposure to seiche hazards. Alternative A would not create new structures that would be exposed to seismic hazards.	the potential risks due to seismic shaking, liquefaction, or seiche inundation hazards.		for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.		
3.12 Hazards, Hazardous Materials, and Risk of Upset					
Impact 3.12-1: Expose people or the environment to hazards because of the routine storage, use, and transport of hazardous materials or from accidental release or upset Construction activities related to each of the build alternatives could involve the routine storage, use, and transport of hazardous materials typical of road and residential	Alt A = NI The design features of Alternatives B, C, D, and E would avoid or minimize the exposure of people or the environment to hazards such that no additional mitigation measures are	Alt A = NI Alts B, C, D, E = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alt A = NI Alts B, C, D, E = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
construction projects. Use of hazardous materials would occur in compliance with all local, state, and federal regulations.	needed or feasible to implement.				
Impact 3.12-2: Exposure to recognized environmental conditions The transportation improvements could affect properties that are included on a list of hazardous materials sites. The project site is located in an area with a moderate to high potential for naturally-occurring radon gas, exposure to which has the potential to cause lung cancer. In addition, ADL could be present on and near roadway shoulders. Although the project incorporates best management practices, avoidance measures, and regulatory compliance, through construction of the project, it would be possible that previously unidentified contaminants, such as radon gas or ADL, could be disturbed or encountered by residents and workers. Although the project incorporates best management practices, avoidance measures, and regulatory compliance to reduce the potential for adverse effects, there is a risk of exposure of residents to radon gas and workers to ADL or other unknown contaminants.	Alt A = NI Mitigation Measures 3.12-2a, 3.12-2b, 3.12-2c, and 3.12-2d have been incorporated into Alternatives B, C, D, and E to further reduce to the extent feasible the potential for exposure to recognized environmental conditions.	Alt A = NI Alts B, C, D, E = PS	**Mitigation Measure 3.12-2a: Conduct surveys for asbestos-containing materials, aerially deposited lead, and lead-based paints and coatings** This mitigation would apply to the transportation improvements and mixed-use development sites associated with Alternatives B, C, and D, and Alternative E for the purposes of NEPA, CEQA, and TRPA. 1. Demolition of buildings and roadways containing asbestos and lead-based materials shall require specialized procedures and equipment, and appropriately certified personnel, as detailed in the applicable regulations. Buildings and roadways intended for demolition that were constructed before 1980 shall be surveyed for asbestos, while those constructed before 1971 shall be surveyed for lead. Prior to construction, all existing road right-of-ways in the project site shall be surveyed for lead contamination because of ADL and use of paint and coatings containing lead. All sampling shall be conducted consistent with applicable Caltrans and NDMV requirements. 2. A demolition plan shall be prepared for any location with positive results for asbestos or lead. The plan will specify how to appropriately contain, remove, and dispose of the asbestos and lead-containing material while meeting all requirements and BMPs to protect human health and the environment. A lead compliance plan shall be prepared by a Certified Industrial Hygienist (consistent with the requirements of Caltrans' SSP 14-11.07).	Alt A = NA Alts B, C, D, E = No additional mitigation measures would be needed or are feasible to implement.	Alt A = NI Alts B, C, D, E = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			Prior to demolition, the project applicant shall submit the written plan to the El Dorado County Department of Environmental Management, Hazardous Waste Division, describing the methods to be used to, including, but not limited to, the following: (a) identify locations that could contain hazardous residues; (b) remove plumbing fixtures known to contain, or potentially containing, hazardous materials; (c) determine the waste classification of the debris; (d) package contaminated items and wastes; and (e) identify disposal site(s) permitted to accept such wastes. Demolition shall not occur until the plan has been accepted by the El Dorado County Department of Environmental Management, Hazardous Waste Division and all potentially hazardous components have been removed to the satisfaction of El Dorado County Environmental Health Department staff. The project applicant shall also provide written documentation to the County that lead-based paint and asbestos testing and abatement, as appropriate, have been completed in accordance with applicable state and local laws and regulations. Lead abatement shall include the removal of lead-contaminated soil (i.e., soil with lead concentrations greater than 400 parts per million). 3. Prior to ground disturbance of any soils adjacent to the Tahoe Tom's Gas Station facility, soil samples shall be collected from the proposed construction footprint at this location to evaluate potential impacts from a petroleum hydrocarbon release that was discovered in 1998. Based on the results of the sampling, and consistent with standard industry practice, remediation measures shall be developed and implemented to the satisfaction of the El Dorado County Department of		

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			Environmental Management, Hazardous Waste Division. **Mitigation Measure 3.12-2b: Prepare a construction hazardous materials management plan** This mitigation would apply to the transportation improvements and mixed-use development sites associated with Alternatives B, C, and D, and Alternative E for the purposes of NEPA, CEQA, and TRPA. A construction hazardous materials management plan shall be developed to address potentially contaminated soil, contaminated groundwater, lead-based paint, and asbestos-containing materials that may be encountered during project construction activities. The construction hazardous materials management plan shall include provisions for agency notification, managing contaminated materials, sampling and analytical requirements, and disposal procedures. The plan shall include identification of construction site BMPs to minimize the potential for water quality impacts. The construction hazardous materials management plan shall cover, at a minimum, the following: ◢ petroleum hydrocarbon-contaminated soils and/or groundwater that may be encountered during project construction activities in areas where construction depths exceed 2 feet below ground surface (bgs) in the vicinity of the RECs described above; ◢ soils identified by the ADL surveys as being contaminated by lead within survey area ROWs; ◢ materials identified by the lead-based paint and asbestos-containing materials surveys as contaminated by lead-based paint and asbestos-		

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			containing materials within bridge, pipe, and building materials; ◢ guidance for relocation, removal, or repair of hazardous materials storage facilities (USTs or ASTs) that are affected by project construction; and ◢ information on assessment and potential handing of contaminated soils found during relocation. The plan shall include procedures to stop work if evidence of potential hazardous materials or contamination of soils or groundwater is encountered during construction, including the applicable requirements of the Comprehensive Environmental Response, Compensation, and Liability Act and CCR Title 22 regarding the disposal of wastes. **Mitigation Measure 3.12-2c: Conduct radon investigation and implement radon-resistant construction techniques** This mitigation would apply to mixed-use development sites associated with Alternatives B, C, and D for the purposes of NEPA, CEQA, and TRPA. Prior to the occupancy of housing units associated with the three future mixed-use development sites, the applicant or construction manager shall retain a licensed radon contractor to determine if radon is detected beyond the 4 pCi/L threshold. If the amount of radon exceeds the established threshold, the applicant shall retain a licensed radon contractor to reduce the radon in the affected residences to below the established threshold. Methods include, but are not limited to, the soil suction radon reduction system, which entails the installation of a vent pipe system and fan that pull radon from beneath the house and vent it to the outside. The radon contractor shall develop clear instructions for proper maintenance of the radon monitoring systems that would be installed in		

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Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
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			each residence, as well as the radon monitoring and reduction system, if required. The property disclosure statements shall indicate that the site is within an area with a moderate potential for indoor radon levels. **Mitigation Measure 3.12-2d: Conduct screening for VECs and, if necessary, conduct sampling and develop and implement remediation measures** This mitigation would apply to the mixed-use development sites associated with Alternatives B, C, and D for the purposes of NEPA, CEQA, and TRPA. Prior to ground disturbance on any parcel intended for human occupancy, the applicant or construction manager shall retain an Environmental Professional as defined in 40 CFR Section 312.10 to perform a screening-level VEC evaluation based on the type of facility, information regarding the type of contaminant and groundwater flow, and the distance from the contaminant to the property to determine whether further study and sampling is warranted. If recommended by the screening, sampling shall be designed and conducted in coordination with DTSC and the CUPA, as appropriate. Based on the results of the sampling, and consistent with standard industry practice, remediation measures shall be developed and implemented to the satisfaction of the appropriate approval agency before building occupancy.		
Impact 3.12-3: Exposure of people or structures to a significant risk of loss, injury, or death involving wildfires Implementation of all of the build alternatives would result in construction activities associated with the proposed transportation improvements and mixed-use development, including replacement housing. There would be a temporary, elevated risk of accidental ignition of a wildland fire, because of increased construction activity in a forested area that has a	Alts A, E = NI The design features of Alternatives B, C, and D would avoid or minimize the potential to increase exposure of people or structures to wildland fire.	Alts A, E = NI Alts B, C, D = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alts A, E = NI Alts B, C, D = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
moderate to very high fire hazard; however, standard construction practices include provisions to avoid ignitions, so the probability of starting a wildland fire would be very low. Implementation of Alternatives B, C, and D also includes three mixed-use development sites, which could provide replacement housing as well as other commercial uses (e.g., retail, restaurant). The mixed-use development could be exposed to potential risk of wildfire because of the siting of mixed-use development within an area containing very high risk of wildfire.					
3.13 Air Quality					
Impact 3.13-1: Short-term, construction-generated emissions of criteria air pollutants and precursors Construction of Alternatives B, C, D, and E would not exceed EDCAQMD's ROG threshold. Construction of Alternatives B, C, and D would exceed EDCAQMD's NO_X threshold, and therefore CO emissions could be significant. Construction of Alternative E would not exceed EDCAQMD's NO_X or CO threshold. All build alternatives (Alternatives B through E) could result in excessive fugitive dust emissions. In addition to construction associated with the roadway improvements, construction emissions related to the potential future mixed-use development sites for Alternatives B, C, and D could occur sometime in the future. Construction associated with redeveloping the mixed-use development sites alone with Alternatives B, C, and D would not exceed EDCAQMD's thresholds for NO_X, ROG, or CO, but could result in excessive fugitive dust emissions.	Alt A = NI Mitigation Measures 3.13-1a and 3.13-1b have been incorporated into Alternatives B, C, D, and E to further reduce to the extent feasible short-term construction-generated emissions of criteria air pollutants and precursors.	Alt A = NI Alts B, C, D, E = S	**Mitigation Measure 3.13-1a: Reduce short-term construction-related NO_X emissions** This mitigation would apply to Alternatives B, C, and D for purposes of NEPA, CEQA, and TRPA. For all construction activities, the project proponent shall ensure that construction contractors comply with the following on-site construction measures to reduce emissions of NO_X: ◢ The prime construction contractor shall submit to EDCAQMD a comprehensive inventory (e.g., make, model, year, emission rating) of all the heavy-duty off-road equipment (50 horsepower of greater) that would be used for 40 or more hours, in aggregate, during a construction season. If any new equipment is added after submission of the inventory, the prime contractor shall contact EDCAQMD before the new equipment is used. At least three business days before the use of subject heavy-duty off-road equipment, the project representative shall provide EDCAQMD with the anticipated construction timeline including start date, name, and phone	Alt A = NA Alts B, C, D, E = No additional mitigation measures would be needed or are feasible to implement.	Alt A = NI Alts B, C, D, E = LTS

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Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			number of the property owner, project manager, and onsite foreman. ◢ Before approval of Grading Permits, the construction contractor shall submit for EDCAQMD approval, a written calculation demonstrating that the heavy-duty (> 50 horsepower) off-road vehicles to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project wide fleet-average 20 percent reduction in NO_X emissions as compared to ARB statewide fleet average emissions. Acceptable options for reducing emissions may include use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. The calculation shall be provided using EDCAQMD's Construction Mitigation Calculator. **Mitigation Measure 3.13-1b: Reduce short-term construction-related fugitive dust (PM10 and PM 2.5)** This mitigation would apply to Alternatives B, C, D, and E. To reduce fugitive dust emissions during all construction activities involving earth-moving activities, the prime construction contractor shall implement all available fugitive dust control measures as indicated in Table C.4 and C.5 (Table 3.13-8) in Appendix C-1 of the El Dorado County Air Pollution Control District CEQA Guide (2002) and included below *(See Attachment 1 to Table S-1)*.		
Impact 3.13-2: Consistency with air quality plans and regional transportation conformity The US Department of Transportation (DOT) made a CAA conformity determination for the TMPO's 2012 RTP/SCS (i.e., Mobility 2035) on January 28, 2013 (DOT 2013). The 2015	Alt A = NI Alternatives B, C, D, and E would avoid an adverse effect on air quality and are consistent with air quality	Alt A = NI Alts B, C, D, E = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alt A = NI Alts B, C, D, E = LTS

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	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
Federal Transportation Improvement Program is consistent with the transportation system and financial plan described in the most recent amendment to the Mobility 2035 and was adopted by TRPA and TMPO on December 12, 2012 (TRPA and TMPO 2012). The 2015 FTIP met all air quality conformity requirements when approved. The design concept and scope of Alternatives B, C, and D are consistent with the project description in the applicable RTP/SCS and FTIP. Although Alternative E would not be consistent with the design concept and scope described in the RTP/SCS, this alternative would not increase regional VMT. Therefore, implementation of Alternatives B, C, D, and E would be consistent with the assumptions in the regional emissions analysis in the RTP and would conform to the SIP and meet Federal Conformity Requirements. There would be no regional increase in mobile-source emissions and the region would continue to conform to applicable air quality plans.	plans and regional transportation conformity such that no additional mitigation measures are needed or feasible to implement.				
Impact 3.13-3: Project-level transportation conformity with respect to localized, long-term mobile-source carbon monoxide emissions Though implementation of all of the build alternatives (Alternatives B through E) and the future potential mixed-use developments associated with Alternatives B, C, and D would result in changes to the roadway network and traffic patterns in the study area, implementation of any of the alternatives with or without the mixed-use developments would not result in increases in traffic such that quantitative screening criteria for local CO emissions would be triggered during project operations. Implementation of any of the alternatives, including Alternative A, and associated mixed-use developments would not result in increased concentrations of CO that would expose sensitive receptors to unhealthy levels.	The design features of Alternatives A, B, C, D, and E would avoid or minimize localized, long-term mobile-source carbon monoxide such that project-level conformity is met and no additional mitigation measures are needed or feasible to implement.	Alts A, B, C, D, E, = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alts A, B, C, D, E, = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
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Impact 3.13-4: Exposure of sensitive receptors to Mobile Source Air Toxics/Toxic Air Contaminants Construction-related activities would result in short-term project-generated emissions of diesel PM under all build alternatives. However, construction would be relatively short in duration (i.e., up to 3 years), would not occur in the same location for extended periods of time, and with incorporated mitigation exhaust emissions would not be significant. As such, construction activities associated with Alternatives B, C, D, and E, with or without the mixed-use development sites, would not expose sensitive receptors to excessive levels of MSATs/TACs. In accordance with FHWA and Caltrans guidance, projects that do not result in more than 140,000 AADT have a low potential to result in impacts from MSAT. Guidance provided by ARB indicates that elevated health risks from operational exposure to diesel exhaust is associated primarily with high volume roadways of 100,000 ADT or more. Implementation of Alternatives B, C, D, and E would result in less than 40,000 ADT during the summer peak season for all affected roadway segments. Therefore, implementation of Alternatives B, C, D, and E is not anticipated to result in a significant health risk impact to sensitive receptors in the study area. Implementation of Alternative A would not result in any new sensitive receptors placed in close proximity to existing sources of MSAT/TAC emissions and no sources of MSAT/TAC emissions would be placed in close proximity to sensitive land uses.	The design features of Alternatives A, B, C, D, and E would avoid or minimize the exposure of sensitive receptors to air toxics such that no additional mitigation measures are needed or feasible to implement.	Alts A, B, C, D, E, = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alts A, B, C, D, E, = LTS
3.14 Greenhouse Gas Emissions and Climate Change					
Impact 3.14-1: GHG emissions and consistency with the Regional Transportation Plan Implementation of Alternatives B, C, and D would result in realignment of US 50 and community revitalization that would be consistent with implementation of the RTP/SCS, which aims	The design features of Alternatives A, B, C, D, and E would avoid or minimize GHG emissions such that no additional mitigation	Alts B, C, D = B Alts A, E = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alts B, C, D = B Alts A, E = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
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to achieve regional VMT (and associated GHG emissions) reduction targets. Therefore, Alternatives B, C, and D would help implement the RTP's impact on regional VMT and related GHG emissions. There would be nominal construction-related GHG emissions of less than 1,100 MTCO2e/year for all the build alternatives. Implementation of Alternative A would not support the revitalization of the tourist core; it would retain the existing roadway system as is and existing traffic conditions, including existing levels of congestion and traffic flow but would not result in an increase in GHG emissions relative to existing conditions. For Alternative E, the existing roadway alignment would remain the same with separation of pedestrians on an elevated structure. It would not support revitalization in the tourist core as effectively as the realignment alternatives and the through-traffic trip length on US 50 would be unchanged as would VMT and related GHG emissions.	measures are needed or feasible to implement.				
Impact 3.14-2: Vulnerability to climate change risks Climate change is expected to result in a variety of effects in the study area including increased frequency and intensity of wildfires; changes to timing and intensity of precipitation resulting in increased risk from landslides associated with ground saturation, increased stormwater runoff, and increased intensity of storm events that result in increased snow loading and high winds. However, there are numerous programs and policies in place, as well as design measures that would protect against these climate change risks.	Alt A = NI The design features of Alternatives B, C, D, and E would avoid or minimize vulnerability to climate change risks such that no additional mitigation measures are needed or feasible to implement.	Alt A = NI Alts B, C, D, Alt E = LTS	No avoidance, minimization, or mitigation measures are required to reduce impacts such that no additional mitigation measures are needed or feasible to implement for the purposes of NEPA or to a less-than-significant level for the purposes of CEQA and TRPA.	NA	Alt A = NI Alts B, C, D, Alt E = LTS
3.15 Noise and Vibration					
Impact 3.15-1: Short-term construction noise levels Alternative A would not include any noise-generating construction or demolition activity. Construction and demolition activity that would occur with the Alternatives B, C, and D transportation improvements and replacement housing at the	Alt A = NI The design features of Alternatives B, C, and D would avoid or minimize the impacts related to	Alt A = NI Alt B, C, D = LTS Alt E = S	Mitigation Measure 3.15-1: Implement measures to reduce exposure of sensitive receptors to noise generated by nighttime construction activity	Alts A, B, C, D = NA Alt E = Mitigation Measure 3.15-1 has been incorporated into Alternative E, but there	Alt A = NI Alt B, C, D = LTS Alt E = SU

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
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mixed-use development sites would take place during the less noise-sensitive time of day and comply with the requirements of TRPA's Best Construction Practices Policy for the Minimization of Exposure to Construction-Generated Noise and Ground Vibration. Alternative E would include construction activity during noise-sensitive evening nighttime hours that could result in exceedances of applicable TRPA land use-based noise thresholds at noise sensitive receptors, as well as exceedances of interior noise standards at nearby hotels and residences.	short-term construction noise such that no additional mitigation measures are needed or feasible to implement; Mitigation Measure 3.15-1 has been incorporated into Alternative E to further reduce to the extent feasible adverse construction-related noise.		The following noise abatement measures would apply for Alternative E only for the purposes of NEPA, CEQA, and TRPA. The project proponent shall implement the following measures to reduce the level of construction noise exposure during the evening and nighttime hours between 6:30 p.m. and 8:00 a.m. The measures are in addition to the measures already required by TRPA's Best Construction Practices Policy for the Minimization of Exposure to Construction-Generated Noise and Ground Vibration (TRPA [no date]a:6; TRPA [no date]b:4 to 5). ◢ No noise-generating construction activity shall be performed at night unless necessary to minimize traffic conflicts. ◢ Designate a disturbance coordinator and post that person's telephone number conspicuously around all construction sites and provide to nearby residences. The disturbance coordinator shall receive all public complaints and be responsible for determining the cause of the complaint and implementing any feasible measures to alleviate the problem. ◢ Provide advanced notice to owners of all residential land uses, tourist accommodations, and commercial land uses located within 1,110 feet where nighttime construction activity would take place. This noticing shall inform the recipients of when and where nighttime construction would occur and the types of measures being implemented to lessen the impact at potentially affected receptors. This noticing shall also provide the contact information for the designated disturbance coordinator.	are no other feasible mitigation, avoidance, or minimization measures that could further reduce to the extent feasible the environmental consequences related to short-term construction noise.	

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			◢ Place temporary noise barriers or noise curtains as close to the noise source or receptor as possible such that it will break the line of sight between the source and receptor. ◢ Coordinating with owners of all tourist accommodation units within this distance to limit nighttime construction activity during those times of year and days of the week when tourist occupancy is the lowest, to the extent feasible. ◢ At equipment staging areas used to support nighttime construction activity, locate all equipment as far as possible from nearby noise-sensitive receptors. Temporary noise barriers shall be placed at these equipment staging areas to shield nearby noise-sensitive receptors from excessive noise generated at staging areas. ◢ Prohibit backup alarms on all trucks and equipment used during nighttime activity and provide an alternate warning system, such as a flagman or radar-based alarm, which is compliant with state regulations. Alternatively, use back up alarms that are programed to generate noise levels no more than 10 dB louder than background noise levels. ◢ Arrival of trucks hauling construction materials and equipment to staging areas and construction sites shall occur only between the hours of between 8:00 a.m. and 6:30 p.m. Departure of trucks hauling away debris from staging areas and construction sites shall also occur only between the hours of between 8:00 a.m. and 6:30 p.m. This requirement shall be provided to all haulers at the time of the initial hauling request. ◢ Offer hotel accommodations to residents who would temporarily be exposed to interior noise levels that		

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Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
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			exceed the interior noise standard of 45 CNEL. Alternative overnight accommodations should be in a location that is not impacted by construction noise.		
Impact 3.15-2: Ground vibration during construction Alternative A would not include any construction or demolition activity that generates ground vibration. Pile driving activity performed during construction of the pedestrian bridge associated with the Alternative B, C, and D transportation improvements along with construction of the mixed-use development sites could expose nearby buildings to ground vibration levels that exceed FTA's vibration 80-VdB standard for human response at residential land uses. Pile driving activity performed during construction of the Skywalk under Alternative E could expose nearby buildings and structures to ground vibration levels that exceed FTA's vibration standard of 0.20 in/sec PPV for structural damage and FTA's vibration standard of 80 VdB for human response at residential land uses.	Alt A = NI Mitigation Measure 3.15-2a has been incorporated into Alternatives B, C, and D, and Mitigation Measure 3.15-2b has been incorporated into Alternative E to further reduce to the extend feasible adverse construction-related ground vibration.	Alt A = NI Alts B, C, D, E = S	Mitigation Measure 3.15-2a: Implement measures to reduce levels of ground vibration to limit the level of human annoyance The following noise abatement measures would apply to the Alternative B, C, and D transportation improvements for the purposes of NEPA, CEQA, and TRPA. The project proponent shall require the following measures be implemented for all pile driving activity, if required, related to construction of the pedestrian bridge: ◢ All necessary piles shall be driven with sonic pile drivers instead of impact pile drivers; ◢ To further reduce pile-driving ground vibration impacts, holes shall be predrilled to the maximum feasible depth. This would reduce the number of blows and/or the amount of time required to seat the pile, and would concentrate the pile-driving activity closer to the ground where noise can be attenuated more effectively; ◢ Pile driving, earth moving, and ground-disturbance activities shall be phased so as not to occur simultaneously in areas close to off-site sensitive receptors. The total vibration level produced could be substantially less when each vibration source is operated separately; and ◢ Designate a disturbance coordinator and post that person's telephone number conspicuously around the locations where pile driving would be performed. The disturbance coordinator shall receive all public complaints and be responsible for	Alt A = NI Alts B, C, D = No additional mitigation measures would be needed or are feasible to implement. Alt E = Mitigation Measure 3.15-2b has been incorporated into Alternative E, but there are no other feasible mitigation, avoidance, or minimization measures that could further reduce to the extent feasible the environmental consequences related to ground vibration during construction.	Alt A = NI Alts B, C, D, E = SU

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			determining the cause of the complaint and implementing any feasible measures to alleviate the problem. The contact information of the disturbance coordinator shall also be provided to the owners of all properties for which a pre-inspection survey is performed. **Mitigation Measure 3.15-2b: Implement measures to reduce exposure of buildings and other structures to levels of ground vibration that could result in structural damage and to limit the level of human annoyance** The following noise abatement measures would apply for Alternative E only for the purposes of NEPA, CEQA, and TRPA. The project proponent shall hire a qualified Nevada- and California-registered geotechnical engineer to perform site-specific study of the geotechnical conditions at the proposed skywalk site. The study shall determine the propagation rate of ground vibration in the area, taking into account local soil conditions, the age of the nearby buildings, and other factors. The study shall determine whether nearby structures and buildings could experience structural damage from pile driving activity at the skywalk site. The study shall also determine whether nearby residential dwellings, tourist accommodation units, and/or commercial land uses would experience levels of ground vibration that exceed FTA's vibration standard of 80 VdB for human response. The study shall also include a geotechnical inspection of all buildings and structures located within 100 feet of locations where impact pile driving would occur or within 60 feet where sonic pile driving would occur. The inspection shall document pre-existing conditions, including any pre-existing structural damage. The pre-		

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			inspection survey of the buildings shall be completed with the use of photographs, videotape, or visual inventory, and shall include inside and outside locations. All existing cracks in walls, floors, driveways shall be documented with sufficient detail for comparison during and upon completion of pile driving activities to determine whether new actual vibration damage has occurred. The results of both surveys shall be provided to the project proponent for review and acceptance of conclusions. Should damage occur during construction, construction operations shall be halted until the problem activity can be identified. Once identified, the problem activity shall be modified to eliminate the problem and protect the adjacent buildings. Any damage to nearby buildings shall be repaired back to the pre-existing condition at the expense of the project proponent. The study shall also identify site-specific measures to lessen the potential for structural damage and to reduce the potential for human response from ground vibration associated with construction of the skywalk and the project proponent shall require construction contractor(s) to implement the measures identified in the study. Such measures shall include, but are not limited to, the following: ◢ All necessary piles shall be driven with sonic pile drivers instead of impact pile drivers, unless sonic pile driving is determined to be infeasible by a qualified geotechnical engineer; ◢ To the extent feasible, project structures shall be designed so that impact-driven piles are placed a sufficient distance from nearby buildings and structures to minimize the potential to cause structural damage (e.g., 100 feet, assuming normal propagation conditions), and sonic-driven piles are		

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Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
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			placed at least 60 feet from nearby buildings and structures to minimize the potential to cause structural damage (e.g., 60 feet, assuming normal propagation conditions); ◢ To the extent feasible, project structures shall be designed so that impact-driven piles are placed a sufficient distance from residences and tourist accommodation units to minimize human response (e.g., 300 feet, assuming normal propagation conditions), and sonic-driven piles are placed a sufficient distance from nearby buildings and structures to minimize human response (e.g., 175 feet, assuming normal propagation conditions); ◢ To further reduce pile-driving ground vibration impacts, holes shall be predrilled to the maximum feasible depth. This would reduce the number of blows and/or the amount of time required to seat the pile, and would concentrate the pile-driving activity closer to the ground where noise can be attenuated more effectively; ◢ Pile driving, earth moving, and ground-disturbance activities shall be phased so as not to occur simultaneously in areas close to off-site sensitive receptors. The total vibration level produced could be substantially less when each vibration source is operated separately; ◢ Designate a disturbance coordinator and post that person's telephone number conspicuously around the skywalk construction site and provide to nearby residences. The disturbance coordinator shall receive all public complaints and be responsible for determining the cause of the complaint and implementing any feasible measures to alleviate the problem. The contact information of the disturbance		

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Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			coordinator shall also be provided to the owners of all properties for which a pre-inspection survey is performed; and ◢ Provide advanced notice to owners of all residential land uses, tourist accommodations, and commercial land uses located within 300 feet of where impact pile driving would take place or within 175 feet of where sonic pile driving would take place. This noticing shall inform the recipients of when and where pile driving would occur and the types of measures being implemented to lessen the impact at potentially affected receptors. This noticing shall also provide the contact information for the designated disturbance coordinator.		
Impact 3.15-3: Traffic noise exposure at existing receptors Alternative A would not result in changes to traffic noise levels along US 50 or local roadways. With Alternatives B, C, and D the 65 CNEL contours along the realigned segments of US 50 would not extend more than 300 feet from the roadway edge for any of the alternatives. Therefore, the Environmental Threshold Carrying Capacity established by TRPA for the transportation corridor would not be exceeded with Alternatives B, C, and D. With Alternatives B, C, and D one or more noise-sensitive receptors would be exposed to noise levels greater than the applicable FHWA noise abatement criteria by the design year (i.e., 2040). With Alternatives B, C, and D multiple existing noise-sensitive receptors in California would experience increases in traffic noise that are considered substantial by 23 CFR 772 criteria (i.e., increase of 12 dB or more). With Alternatives B, C, D, and E one or more existing noise-sensitive receptors located outside of a TRPA transportation	Alt A = NI Mitigation Measures 3.15-3a, 3-15-3b, and 3.15-3c have been incorporated into Alternatives B, C, and D, and Mitigation Measure 3.15-3d has been incorporated into Alternative E, to further reduce to the extent feasible the environmental consequences related to the exposure of sensitive receptors to increased traffic noise levels.	Alt A = NI Alts B, C, D, E = S	Mitigation Measure 3.15-3a: Implement traffic noise reduction measures to reduce traffic noise exposure at affected receptors The following noise abatement measures would apply to the Alternative B transportation improvements and mixed-use redevelopment sites for the purposes of NEPA, CEQA, and TRPA. Performance Requirements Traffic noise reduction measures shall be implemented to achieve the following: 1. Ensure that Receptors 80, 88, 89, 90, and 91 are not exposed to an average daily traffic noise level that exceeds the land use-based 55 CNEL threshold established in TRPA's Pioneer/Ski Run Plan Area Statement 092 (TRPA 2002c:3) and that Receptor 136 is not exposed to an average daily traffic noise level that exceeds the land use-based 65 CNEL threshold established in TRPA's Tourist Core Area Plan (City of South Lake Tahoe and TRPA 2013:5-3 to 5-4)	Alt A = NI Alt E = No additional mitigation measures would be needed or are feasible to implement. Alts B, C, D = Mitigation Measures 3.15-3a, 3.15-3b, and 3.15-3c have been incorporated into Alternatives B, C, and D, respectively, but there are no other feasible mitigation, avoidance, or minimization measures that could further reduce to the extent feasible the environmental consequences related to traffic noise.	Alt A = NI Alts B, C, D = SU Alt E= LTS

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corridor would be exposed to noise levels that exceed TRPA's applicable land use-based CNEL threshold. With Alternatives B, C, D, and E multiple noise-sensitive receptors would be exposed to traffic noise levels that exceed the applicable traffic noise standard established by the City of South Lake Tahoe. With Alternatives B, C, and D multiple noise-sensitive receptors would experience a CNEL increase equal to or greater than 3 dB, which is a TRPA significance criterion and a CEQA significance criterion for receptors located in California. With Alternatives B, C, D, and E one or more existing hotels would be exposed to interior noise levels that exceed the interior noise standard of 45 CNEL. These exceedances would occur under existing-plus-project conditions (2020) and/or under cumulative-plus-project conditions (2040) with a considerable contribution of the exceedance directly resulting from the implementation of the selected alternative. The intensity of these impacts would not be substantially different with development of the replacement housing at the mixed-use redevelopment sites with Alternatives B, C, and D.			under cumulative conditions. These land use-based CNEL thresholds apply at all portions of these receptor parcels that are more than 300 feet from the edge of US 50. This performance requirement shall take priority over Performance Requirements 3 and 4; 2. TTD shall offer to retrofit the South Shore Inn (Receptor 55) sufficiently to ensure that its ambient interior noise levels do not exceed 45 CNEL with windows and doors closed. However, the owners of the motel may choose to refuse this offer; 3. To the extent feasible, reduce traffic noise levels at those receptors identified in Table 3.15-11 that would experience traffic noise levels that exceed or approach the applicable NAC and/or experience a traffic noise level increase greater than Caltrans's incremental increase criterion of 12 dB. For NEPA purposes, the feasibility of achieving this performance requirement can be based on the Noise Abatement Decision Report prepared for the project (Caltrans2016), which was prepared pursuant to guidance in Caltrans's Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects (Caltrans 2011) and 23 CFR 772; and 4. To the extent feasible, reduce traffic noise levels at those receptors identified in Table 3.15-11 that would experience a traffic noise level that exceeds the applicable local noise standard (established by the City of South Lake Tahoe), and/or would experience a traffic noise level increase of 3 dB or greater. Noise Reduction Features Noise-reduction features may include, but are not limited to, any combination of the following:		

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			◢ Paving the nearby segment of roadway with rubberized hot-mix asphalt (RHMA) or equivalent surface treatment with known noise-reducing properties on top of the roadway surface. The RHMA overlay shall be designed with appropriate thickness and rubber component quantity (typically 15 percent by weight of the total blend), such that traffic noise levels are reduced by an average of 4 to 6 dB (noise levels vary depending on travel speeds, meteorological conditions, and pavement quality) as compared to noise levels generated by vehicle traffic traveling on standard asphalt. RHMA has been found to achieve this level of noise reduction in other parts of California (Sacramento County 1999). Pavement will require more frequent than normal maintenance and repair to maintain its noise attenuation effectiveness. ◢ Installation of outdoor sound barriers between affected receptors and the roadway segments that are the predominant noise source at the receptors. The sound barriers must be constructed of solid material (e.g., wood, brick, adobe, an earthen berm, boulders, or combination thereof). The reflectivity of each sound barrier will be minimized to ensure that traffic noise reflected off the barrier does not contribute to an exceedance of applicable TRPA CNEL standards at other receptors. The level of sound reflection from a barrier can be minimized with a textured or absorptive surface or with vegetation on or next to the barrier. Scenic quality factors will be taken into account during design, such as using more natural materials (e.g., berms and boulders) to reduce the visible mass of a wall. Mitigation Measure 3.7-3 also proposes the use of a sound barrier to attenuate impacts from		

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	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			headlights shining onto residential properties and describes details to ensure the barriers would not cause negative visual impacts (see Section 3.7, Visual Resources/Aesthetics). All barriers will be designed to blend into the restored landscape along the highway, to the extent feasible. Ensuring a character consistent with the surrounding area may involve the use of strategically placed boulders, native trees, or other vegetation; the addition of special materials (e.g., wood or stonework) on the façade of the sound wall; and/or a sound wall that is covered in vegetation. The location and design of sound barriers shall adhere to any space requirements for snow removal on the adjacent roadway. If desired a sound barrier can be divided into two overlapping segments with a gap in the overlapped portion to provide pedestrian access from one side to the other. The specific location, length, height, and design of noise barriers for Alternative B must be defined during engineering design development. It is not feasible to provide engineering details of noise barriers prior to the initiation of preliminary engineering for the transportation improvements. For conceptual planning purposes, however, based on the environmental planning-level noise analysis in this document, the approximate location and height of noise barriers for Alternative B are as follows: ◤ Barriers would need to be built on both the north and south sides of the realigned US 50 alignment to protect affected residences behind them. The approximate length is estimated to be in the range of 1,000 to 1,200 feet on each side of the highway. The height needed for an		

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			approximately 5 dB attenuation would be between 6 to 8 feet above the road surface. Noise barriers would be entirely within the public right-of-way. ◤ The conceptual extent of the south barrier would be from the intersection of realigned US 50 and Pioneer Trail (near the existing 90-degree bend in Primrose Road close to Pioneer Trail) east to the curve of the highway onto the Montreal Road alignment (near the existing intersection of Echo Road and Montreal Road). ◤ The conceptual extent of the north barrier would be from the intersection of realigned US 50 and Pioneer Trail (near the existing intersection of Moss Road and Pioneer Trail) east to beyond Fern Road (near the existing corner of the back parking area of Heavenly Village Center). ◢ Reduced vehicle speeds through posted speed limits, advisory signs, and/or design features that serve as traffic calming elements (e.g., median barrier, center islands, and raised crosswalks). The design of any special traffic-calming features shall not prevent the ability to provide adequate snow removal of any surfaces used for driving, walking, or biking. ◢ Offer to the property owners of residences, motels/hotels, or other tourist accommodation units where the interior noise levels would exceed 45 CNEL, increased noise insulation of exterior walls to improve the Sound Transmission Class (STC) of those walls, including but not limited to added insulation, upgrades to drywall, acoustical sound absorption panels, new windows, and new exterior siding. For residences or tourist		

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			accommodation units that do not currently have air conditioning, install an air conditioning system if necessary to ensure that residents can close all windows and doors during nighttime hours and maintain adequate interior comfort. ◢ Acquire properties where the noise level would exceed TRPA thresholds, applicable Caltrans noise abatement criteria, and/or applicable local noise standards; or where traffic noise levels would increase by 3 dB CNEL or greater. Acquisition of additional properties shall only occur if other feasible noise reduction measures are not available to achieve the applicable standards or minimize traffic noise increases to less than 3 dB CNEL. Selection and Design Process The selection and design of specific traffic noise reduction measures shall be supported by a site-specific noise abatement assessment conducted by a qualified acoustical engineer or consultant selected by the project proponent. This study shall be fully funded by the project proponent and approved by the project proponent, TRPA, and Caltrans prior to project construction. If necessary to support the effectiveness of selected noise reduction measures, the site-specific noise abatement assessment may involve additional sound level measurements and/or the use of detailed site-specific modeling with software such as FHWA's Traffic Noise Model (FHWA 2006), SoundPLAN (SoundPLAN 2015) or CadnaA (DataKustik 2015). For those receptors predicted to experience an exceedance of NEPA significance criteria for traffic noise, as identified in Table 3.15-11, the feasibility of constructing a sound barrier, for NEPA purposes, shall be based on the results of the Noise Abatement Decision		

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			Report (Caltrans 2016), which was prepared pursuant to guidance in Caltrans's Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects (Caltrans 2011) and 23 CFR 772. TTD shall prepare a study supplemental to the Noise Abatement Decision Report to identify all necessary measures to ensure attainment of all applicable TRPA land use-based CNEL thresholds. The supplemental study shall also identify all feasible measures to reduce traffic noise increases to less than 3 dB and/or reduce traffic noise levels to less than the applicable local noise standards, with specific attention to the application of the City's noise standard at the outdoor activity areas of residential and tourist accommodation land uses. In addition, the supplemental study shall identify, and TTD shall select, the set of feasible noise reduction measures that would benefit the most receptors and prioritize the attainment of applicable NAC ahead of the applicable local noise standard. Mitigation Measure 3.15-3b: Implement traffic noise reduction measures to reduce traffic noise exposure at affected receptors The following noise abatement measures would apply to the Alternative C transportation improvements and mixed-use development sites for the purposes of NEPA, CEQA, and TRPA. Performance Requirements Traffic noise reduction measures shall be implemented to achieve the following: 1. Ensure that Receptor 136 is not exposed to an average daily traffic noise level that exceeds the land use-based 65 CNEL threshold established in TRPA's Tourist Core Area Plan (City of South Lake Tahoe and		

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			TRPA 2013:5-3 to 5-4) under cumulative conditions. This performance requirement shall take priority over Performance Requirements 2, 3 and 4; 2. TTD shall offer to retrofit the South Shore Inn (Receptor 55) sufficiently to ensure that its ambient interior noise level does not exceed 45 CNEL with windows and doors closed. However, the owner of the motel may choose to refuse this offer; 3. To the extent feasible, reduce traffic noise levels at those receptors identified in Table 3.15-12 that would experience a traffic noise level that exceeds or approaches the applicable NAC and/or experience a traffic noise level increase greater than Caltrans's incremental increase criterion of 12 dB. For NEPA purposes, the feasibility of achieving this performance requirement can be based on the Noise Abatement Decision Report prepared for the project (Caltrans 2016), which was prepared pursuant to guidance in Caltrans's Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects (Caltrans 2011) and 23 CFR 772; and 4. To the extent feasible reduce traffic noise levels at those receptors identified in Table 3.15-12 that would experience a traffic noise level that exceeds the applicable local noise standard (established by the City of South Lake Tahoe), and/or would experience a traffic noise level increase of 3 dB or greater. Noise Reduction Features Noise reduction features may include, but are not limited to, the same features identified for Alternative B in Mitigation Measure 3.15-3a. The specific location, length, height, and design of noise barriers for Alternative C must be defined during		

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			engineering design development and, as described for Alternative B, adhere to Mitigation Measure 3.7-3 to avoid negative visual impacts (see Section 3.7, Visual Resources/Aesthetics). It is not feasible to provide engineering details of noise barriers prior to the initiation of preliminary engineering for the transportation improvements. For conceptual planning purposes, however, based on the environmental planning-level noise analysis in this document, the approximate location and height of noise barriers for Alternative C are as follows (similar to Alternative B): ◢ Barriers would need to be built on both the north and south sides of the realigned US 50 alignment to protect affected residences behind them. The approximate length is estimated to be in the range of 1,000 to 1,200 feet on each side of the highway. The height needed for an approximately 5 dB attenuation would be between 6 to 8 feet above the road surface. Noise barriers would be entirely within the public right-of-way. ◢ The conceptual extent of the south barrier would be from the intersection of realigned US 50 and Pioneer Trail (near the existing 90-degree bend in Primrose Road close to Pioneer Trail) east to the curve of the highway onto the Montreal Road alignment (near the existing intersection of Echo Road and Montreal Road). ◢ The conceptual extent of the north barrier would be from the intersection of realigned US 50 and Pioneer Trail (near the existing intersection of Moss Road and Pioneer Trail) east to beyond Fern Road (near the existing corner of the back parking area of Heavenly Village Center).		

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			Selection and Design Process The selection and design of specific traffic noise reduction measures to reduce traffic noise impacts under Alternative C shall adhere to the same requirements identified for Alternative B in Mitigation Measure 3.15-5a. Mitigation Measure 3.15-3c: Implement traffic noise reduction measures to reduce traffic noise exposure at affected receptors The following noise abatement measures would apply to the Alternative D transportation improvements and mixed-use development sites for the purposes of NEPA, CEQA, and TRPA. Performance Requirements Traffic noise reduction measures shall be implemented to achieve the following: 1. Ensure that Receptors 30, 97, and 98 are not exposed to an average daily traffic noise level that exceeds the land use-based 55 CNEL threshold established in TRPA's Pioneer/Ski Run Plan Area Statement 092 (TRPA 2002c:3) and that Receptor 136 is not exposed to an average daily traffic noise level that exceeds the land use-based 65 CNEL threshold established in TRPA's Tourist Core Area Plan (City of South Lake Tahoe and TRPA 2013:5-3 to 5-4). These land use-based CNEL thresholds apply to all portions of these receptor parcels that are more than 300 feet from the edge of US 50. Also ensure that Receptor 29 is not exposed to more than its existing noise level of 65 CNEL under cumulative-plus-Alternative D conditions, which currently exceeds the TRPA land use-based noise threshold of 55 CNEL established in PAS 092 Pioneer/Ski Run (TRPA 2002c:3) and is expected to be exposed to 65 CNEL		

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			under cumulative-no-project conditions. This performance requirement shall take priority over Performance Requirements 2, 3, and 4; 2. TTD shall offer to retrofit the Trailhead Motel (Receptor 20) with sufficient noise insulation to ensure that its ambient interior noise levels do not exceed 45 CNEL with windows and doors closed. However, the owners of the motel may choose to refuse this offer; 3. To the extent feasible reduce traffic noise levels at Receptors 42, 68, 71, 83, and 84 so they would not experience a traffic noise level that exceeds or approaches the applicable NAC and/or experience a traffic noise level increase greater than Caltrans's incremental increase criterion of 12 dB. For NEPA purposes, the feasibility of achieving this performance requirement can be based on the Noise Abatement Decision Report prepared for the project (Caltrans 2016), which was prepared pursuant to guidance in Caltrans's Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects (Caltrans 2011) and 23 CFR 772 and is included in Appendix E to the RTP/SCS EIR/EIS; and 4. To the extent feasible reduce traffic noise levels at those receptors identified in Table 3.15-13 that would experience a traffic noise level that exceeds the applicable local noise standard established by the City of South Lake Tahoe, and/or would experience a traffic noise level increase greater than 3 dB. Noise Reduction Features Noise reduction features may include, but are not limited to, the same features identified for Alternative B in Mitigation Measure 3.15-3a.		

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			Noise analysis indicates the need for a barrier on the south side of the relocated highway for Alternative D. The specific location, length, height, and design of noise barrier for Alternative D must be defined during engineering design development and, as described for Alternative B, adhere to Mitigation Measure 3.7-3 to avoid negative visual impacts (see Section 3.7, Visual Resources/Aesthetics). It is not feasible to provide engineering details of a noise barrier prior to the initiation of preliminary engineering for the transportation improvements. For conceptual planning purposes, however, based on the environmental planning-level noise analysis in this document, the approximate location and height of the noise barrier for Alternative D are as follows: ◢ A barrier would need to be built on the south side of the realigned US 50 alignment to protect affected residences behind it. The approximate length is estimated to be in the range of 800 to 1,000 feet. The height needed for an approximately 5 dB attenuation would be between 6 to 8 feet above the road surface. The noise barrier would be entirely within the public right-of-way. The conceptual extent of the south barrier would be from the intersection of realigned US 50 and Pioneer Trail (near the existing intersection of Echo Road and Pioneer Trail) east to the curve of the highway onto the Montreal Road alignment (near the existing corner of the Heavenly Village Center parking lot). ◢ If the existing residential land uses along Fern Road (represented by Receptors 96, 97, and 98) are not replaced with mixed-use redevelopment prior to completion of the realigned US 50 alignment, then a barrier would also need to be built on the north side of the realigned US 50 alignment to protect		

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			these affected residences. The approximate length of the barrier on the north side of the realigned US 50 alignment is estimated to be approximately 600 to 800 feet. Selection and Design Process The selection and design of specific traffic noise reduction measures to reduce traffic noise impacts under Alternative D shall adhere to the same requirements identified for Alternative B in Mitigation Measure 3.15-5a. Mitigation Measure 3.15-3d: Implement traffic noise reduction measures to reduce traffic noise exposure at affected receptors The following noise abatement measures would apply for Alternative E for the purposes of CEQA and TRPA. Performance Requirements Traffic noise reduction measures shall be implemented to achieve the following: 1. Ensure that implementation of Alternative E does not contribute to an exceedance of the land use-based 65 CNEL threshold established in TRPA's Tourist Core Area Plan (City of South Lake Tahoe and TRPA 2013:5-3 to 5-4) at Receptor 136 under cumulative conditions. This means that noise reduction measures shall be implemented to reduce the traffic noise level by a minimum of 1 dB under the cumulative-plus-Alternative E condition. (This performance requirement would also ensure that Alternative E does not contribute to an exceedance of the 65 CNEL transportation noise standard established by the City of South Lake Tahoe.) This performance requirement shall take priority over Performance Requirements 2 and 3;		

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			2. Reduce exterior traffic noise levels at Receptors 20, 99, 102, 107, 135, and 136 by a minimum of 1 dB to offset the contribution by Alternative E under cumulative conditions to an exceedance of the 65 CNEL standard established by the City of South Lake Tahoe for these land uses; and 3. TTD shall offer to retrofit the Trailhead Motel (Receptor 20) and the Park Tahoe Aspen Court (Receptor 107) sufficiently to ensure that its ambient interior noise levels do not exceed 45 CNEL with windows and doors closed. However, the owners of these motels may choose to refuse this offer. Noise Reduction Features Noise reduction features may include, but are not limited to, the same features identified for Alternative B in Mitigation Measure 3.15-3a. Selection and Design Process The selection and design of specific traffic noise reduction measures to reduce traffic noise impacts under Alternative E shall adhere to the same requirements identified for Alternative B in Mitigation Measure 3.15-5a.		
Impact 3.15-4: Noise/land use compatibility of mixed-use redevelopment sites Alternatives A and E would not include the redevelopment of any areas within the project site that would expose new land uses to excessive noise levels. With Alternatives B, C, and D, the mixed-use redevelopment sites would not be located where they would be exposed to noise levels that exceed TRPA transportation corridor contour-based noise thresholds or TRPA land-use based noise thresholds. Therefore, this impact would be less than significant for purposes of TRPA threshold compliance.	Alts A, E = NI Mitigation Measure 3.15-4 has been incorporated into Alternatives B, C, and D to further reduce to the extent feasible the potential to expose land uses to an incompatible noise environment.	Alts A, E = NI Alts B, C, D = PS	Mitigation Measure 3.15-4: Implement noise protection measures to ensure that outdoor activity areas on the mixed-use redevelopment sites are not exposed to noise levels greater than 60 CNEL The following noise abatement measures would apply to the Alternative B, C, and D mixed-use development sites for the purposes of NEPA, CEQA, and TRPA. Performance Requirement Developers of each mixed-use redevelopment site shall be required to ensure that ambient traffic noise levels do not exceed 60 CNEL at all common outdoor activity areas (not including parking lots or walkways between parking lots	Alts A, E = NA Alts B, C, D = No additional mitigation measures would be needed or are feasible to implement.	Alts A, E = NI Alts B, C, D = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
Common outdoor activity areas could be included on the mixed-use redevelopment sites that would potentially be developed under Alternatives B, C, and D. These common outdoor activity areas could be exposed to traffic noise levels that exceed the City of South Lake Tahoe's 60 CNEL standard.			and building entrances). This performance standard shall be achieved at each site prior to occupancy of any of the housing units and under the cumulative-plus-project condition for Alternatives B, C, and D. Noise Reduction Features Measures to reduce noise exposure levels may include, but are not limited to, any combination of the following: ◢ Setting back common outdoor activity areas as far as possible from the nearest segment(s) of US 50; ◢ Strategically locating buildings to shield common outdoor activity areas from noise generated by traffic on the nearby segment(s) of US 50. An example of this type of design layout exists at the existing Forest Suites Resort on the corner of Lake Parkway and Heavenly Village Way; ◢ Installing outdoor sound barriers on the redevelopment property between the outdoor activity areas and the nearby segment(s) of US 50. The sound barriers must be constructed of solid material (e.g., wood, brick, adobe, an earthen berm, boulders, or combination thereof). The reflectivity of each sound barrier shall be minimized to ensure that traffic noise reflected off the barrier does not contribute to an exceedance of applicable noise standards at other off-site receptors. The level of sound reflection from a barrier can be minimized with a textured or absorptive surface or with vegetation on or next to the barrier. All barriers shall blend into the overall landscape and have an aesthetically pleasing appearance that agrees with the character of the surrounding area, and not become the dominant visual element of the area. Ensuring a character consistent with the surrounding area may involve the use of		

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Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			strategically placed boulders, native trees, or other vegetation; the addition of special materials (e.g., wood or stonework) on the façade of a sound wall; and/or a sound wall that is covered in vegetation. Special icon panels depicting works of art or emblems meaningful to the area may be included on sound barriers so long as they comply with any applicable local guidelines for public art. The location and design of sound barriers shall adhere to any space requirements for snow removal on US 50. Where desired a sound barrier can be divided into two overlapping segments with a gap to provide pedestrian access from one side to the other; and/or ◢ Locating outdoor activity areas, such as swimming pools or patios, on building rooftops. Selection and Design Process The selection and design of specific measures to reduce noise exposure at outdoor activity areas at each mixed-use redevelopment site shall be conducted by a qualified acoustical engineer or consultant pursuant to Policy HS-8.6 of the City of South Lake Tahoe General Plan. The study for each site shall be fully funded by the applicant seeking to develop the site and approved by City staff prior to project construction. If necessary to support the effectiveness of selected noise reduction measures, the site-specific noise abatement assessment may involve additional sound level measurements and/or the use of detailed site-specific modeling with software such as FHWA's Traffic Noise Model (FHWA 2006), SoundPLAN (SoundPLAN 2015) or CadnaA (DataKustik 2015).		

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
3.16 Biological Environment					
Impact 3.16-1: Disturbance or loss of common vegetation communities and wildlife habitats With three of the build alternatives (Alternatives B, C, and D), project implementation would result in the removal or disturbance of 0.5 to 1.7 acres of common natural vegetation communities and habitats, including Jeffrey pine and low sagebrush. Because these habitats are locally and regionally common and abundant, and the project site is presently affected by high levels of commercial/urban, residential, and recreational uses, none of these build alternatives would substantially reduce the size, continuity, or integrity of any common vegetation community or habitat type. With the no-build alternative (Alternative A) or Alternative E, no project-related removal of common vegetation communities would occur.	Alts A, E = NI The design features of Alternative B, C, and D would avoid or minimize the disturbance or loss of common vegetation communities and wildlife habitats.	Alts A, E = NI Alts B, C, D = LTS	No mitigation is required for any of the alternatives.	NA	Alts A, E = NI Alts B, C, D = LTS
Impact 3.16-2: Disturbance or loss of sensitive habitats (jurisdictional wetlands, riparian vegetation, SEZ, aquatic habitat) Implementing Alternatives B, C, and D would result in direct removal and disturbance of sensitive habitats, including waters of the United States, waters of the state, riparian habitat, and SEZs. With the no-build alternative (Alternative A) or Alternative E, no project-related disturbance of sensitive habitats would occur.	Alts A, E = NI Mitigation Measures 3.16-2a, 3.16-2b, and 3.16-2c have been incorporated into Alternatives B, C, and D to further reduce to the extent feasible the environmental consequences related to disturbance or loss of sensitive habitats.	Alts A, E = NI Alts B, C, D = PS	**Mitigation Measure 3.16-2a: Implement vegetation protection measures and revegetate disturbed areas** This mitigation would apply to the transportation improvements and mixed-use development sites included in Alternatives B, C, and D for the purposes of NEPA, CEQA, and TRPA. Vegetation will not be disturbed, injured or removed, except in accordance with the TRPA Code and other conditions of project approval. All trees, major roots, and other vegetation, not specifically designated and approved for removal in connection with a project will be protected according to methods approved by TRPA. All vegetation outside the construction site boundary, as well as other vegetation designated on the approved plans, will be protected by installing temporary fencing pursuant to Subsections 33.6.9 and 33.6.10 of the TRPA Code. Areas	Alts A, E = NA Alts B, C, D = No additional mitigation measures would be needed or are feasible to implement.	Alts A, E = NI Alts B, C, D = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			outside the construction site boundary that sustain vegetation damage during construction will be revegetated according to a revegetation plan in accordance with Section 61.4. **Mitigation Measure 3.16-2b: Conduct delineation of waters of the United States and obtain authorization for fill and required permits** The following mitigation applies to the transportation improvements and mixed-use development sites included in Alternatives B, C, and D for the purposes of NEPA, CEQA, and TRPA. A preliminary delineation of potential wetlands and other waters of the United States was conducted in 2010 and 2011 (TTD 2015). However, the preliminary delineation has not been verified by USACE. Additionally, because the delineation was completed more than 5 years before project construction, it is considered expired, and will need to be repeated prior to permit application and approval. Before the start of on-site construction activities on any potentially affected jurisdictional resource, a qualified biologist will survey the project site for sensitive natural communities. Sensitive natural communities or habitats are those of special concern to resource agencies or those that are afforded specific consideration, based on Section 404 of the CWA, Sections 1600 *et seq.* of the California Fish and Game Code, and other applicable regulations. If sensitive natural communities or habitats that are afforded specific consideration, based on Section 404 of the CWA are determined to be present, a delineation of waters of the United States, including wetlands that would be affected by the project, will be prepared by a qualified biologist through the formal		

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
Adv = Adverse B = Beneficial LTS = Less than significant MU = mixed-use NA = Not applicable NAdv = Not adverse NI = No impact PS = Potentially significant S = Significant SU = Significant and unavoidable					
			Section 404 wetland delineation process. The delineation will be submitted to and verified by USACE. If, based on the verified delineation, it is determined that fill of waters of the United States would result from implementation of the project, authorization for such fill will be secured from USACE through the Section 404 permitting process. The acreage of riparian habitat (deciduous riparian vegetation) and wetlands that would be removed or disturbed during project implementation will be quantified and replaced or restored/enhanced in accordance with USACE and TRPA regulations, which include meeting the no-net-loss standard in accordance with USACE requirements. Habitat restoration, enhancement, and/or replacement will be at a location and by methods agreeable to USACE as determined during the permitting processes for CWA Section 404 and by TRPA during the permitting process for SEZ. In addition, on the California side of the study area, if any project activities would affect aquatic resources and associated riparian habitats subject to regulation by CDFW under Sections 1600 *et seq*. of the California Fish and Game Code (i.e., the bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources), the project proponent shall consult with CDFW to determine whether a lake and streambed alteration agreement (LSAA) is required. If required under Section 1602, any compensatory mitigation shall be conducted in accordance with the terms of the LSAA, and in coordination with the other requirements of this mitigation measure (Mitigation Measure 3.16-2b) and Mitigation Measure 3.16-2c.		

			Mitigation Measure 3.16-2c: Compensate for Unavoidable Loss of SEZ The following mitigation applies to the transportation improvements and mixed-use development sites included in Alternatives B, C, and D for the purposes of NEPA, CEQA, and TRPA. The following measures will be implemented to ensure consistency with Section 61.3 of the TRPA Code and further reduce potential adverse effects on SEZs, streams, and riparian habitat: ◢ All reasonable alternatives shall be implemented to avoid or reduce the extent of encroachment into SEZs. ◢ In instances where there is no feasible alternative to avoid an SEZ, the project proponent shall mitigate all impacts within the boundaries of SEZs by restoring SEZ habitat (land capability district 1b) in the surrounding area, or other appropriate area as determined by TRPA, at a minimum ratio of 1.5:1, consistent with TRPA Code. ◢ The project proponent shall retain a qualified restoration ecologist to prepare a restoration plan that will address final clean-up, stabilization, and revegetation procedures for areas disturbed by the project. The restoration plan for SEZs shall include the following: ◤ identification of compensatory mitigation sites and criteria for selecting these mitigation sites; ◤ complete assessment of the existing biological resources in the restoration areas; ◤ in kind reference habitats for comparison with compensatory SEZs (using performance and success criteria) to document success; ◤ monitoring protocol, including schedule and annual report requirements (Compensatory habitat shall be monitored for a minimum of five years from completion of mitigation, or human intervention [including recontouring and grading], or until the success criteria identified in the approved mitigation plan have been met, whichever is longer);		

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
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			◤ ecological performance standards, based on the best available science and including specifications for native plant densities, species composition, amount of dead woody vegetation gaps and bare ground, and survivorship; at a minimum, compensatory mitigation planting sites must achieve 80 percent survival of planted vegetation by the end of the five-year maintenance and monitoring period or dead and dying plants shall be replaced and monitoring continued until 80 percent survivorship is achieved; ◤ corrective measures if performance standards are not met; ◤ responsible parties for monitoring and preparing reports; and ◤ responsible parties for receiving and reviewing reports and for verifying success or prescribing implementation or corrective actions.		
Impact 3.16-3: Tree removal Regardless of the magnitude of biological effects of tree removal, native trees are protected in the Tahoe Basin, because of their natural qualities and functions. Because Alternatives B, C, and D would result in removal of more than 100 trees 14 inches or greater dbh, they would result in substantial tree removal. With Alternative E, native tree removal would not be substantial. While all build alternatives would require removal of trees greater than 24 inches dbh in eastside forest and/or 30 inches dbh in westside forest, which is generally prohibited by TRPA, the US 50/South Shore Community Revitalization Project meets the exception in TRPA Code Section 61.1.4.A.7 that allows for the removal of these trees for Environmental Improvement Program (EIP) projects,	Alt A = NI, Alt E = NA Mitigation Measure 3.16-3 has been incorporated into Alternatives B, C, and D to further reduce to the extent feasible the environmental consequences related to biological effects resulting from tree removal.	Alt A = NI Alts B, C, D = PS Alt E = LTS	Mitigation Measure 3.16-3: Prepare tree removal, protection, and replanting plan The following mitigation applies to the transportation improvements and mixed-use development sites included in Alternatives B, C, and D for the purposes of NEPA, CEQA, and TRPA. A Tree Removal, Protection, and Replanting Plan shall be prepared by the project proponent to provide tree protection measures to comply with the performance criteria and other requirements of Chapter 61 of the TRPA Code, prevent damage to trees that are proposed to remain, and determine appropriate tree replanting locations and approaches to occur in the project site. The Plan will include marking and inventorying the specific	Alts A, E = NA Alts B, C, D = No additional mitigation measures would be needed or are feasible to implement.	Alt A = NI Alts B, C, D, E = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
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provided that findings demonstrate that the tree removal is necessary. In Alternative A no trees would be removed.			trees to be removed, after detailed design is completed. A qualified forester will make a determination regarding the project's consistency with Chapter 61 of the TRPA Code. The plan shall set forth prescriptions for tree removal, water quality protection, root zone and vegetation protection, residual stocking levels, replanting, slash disposal, fire protection, and other appropriate considerations.		
Impact 3.16-4: Introduction and spread of invasive plants With three of the build alternatives (Alternatives B, C, and D), project implementation has the potential to introduce and spread terrestrial and aquatic invasive plants during construction and revegetation periods. Noxious weeds and other invasive plants could inadvertently be introduced or spread in the project site during grading and construction activities, if nearby source populations passively colonize disturbed ground, or if construction and personnel equipment is transported to the site from an infested area. Soil, vegetation, and other materials transported to the project site from off-site sources for BMPs, revegetation, or fill for project construction could contain invasive plant seeds or plant material that could become established in the project site. Additionally, invasive species currently present in or near the project site have the potential to be spread by construction disturbances. The introduction and spread of terrestrial or aquatic invasive species would degrade terrestrial plant, wildlife, and aquatic habitats, including habitats of special significance (riparian) within the project site opening up the potential introduction and spread of invasive species with Alternatives B, C, and D. With the no-build alternative (Alternative A) or Alternative E, no project-related ground disturbances in any common or sensitive vegetation community would occur; therefore, there would be no related	Alts A, E = NI Mitigation Measure 3.16-4 has been incorporated into Alternatives B, C, and D to further reduce to the extent feasible the environmental consequences related to the introduction and spread of invasive plants.	Alts A, E = NI Alts B, C, D = PS	**Mitigation Measure 3.16-4: Implement invasive plant management practices during project construction** This following mitigation applies to the transportation improvements and mixed-use development sites included in Alternatives B, C, and D for the purposes of NEPA, CEQA, and TRPA. In consultation with TRPA, the project proponent shall implement appropriate invasive plant management practices during project construction. Recommended practices generally include the following: ◢ Before construction activities begin, invasive plant infestations will be identified and appropriately treated where feasible. A qualified biologist will conduct a pre-construction survey for noxious weeds and other invasive plants in project construction areas, and determine the feasibility and appropriate method of removal/treatment. Treatments will be selected based on their effectiveness for each species ecology and phenology. All treatment methods—including the potential use of herbicides outside of potential wetland and SEZ areas—will be conducted in accordance with the law, regulations, and policies governing the land owner. Herbicides will not be used in sensitive habitats, including potential wetlands and SEZs. Land owners will be notified	Alts A, E = NA Alts B, C, D = No additional mitigation measures would be needed or are feasible to implement.	Alts A, E = NI Alts B, C, D = LTS

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
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spread or introduction of invasive plants into common or sensitive vegetation communities and habitats from these alternatives.			before the use of herbicides for invasive treatment. In areas where treatment is not feasible, noxious weed areas will be clearly flagged or fenced to clearly delineate work exclusion. ◢ To ensure that fill material and seeds imported to the project site are free of invasive plants/noxious weeds, the project will use on-site sources of fill and seeds whenever available. Fill and seed materials that need to be imported to the project site will be certified weed-free by the Resident Engineer. In addition, only certified weed-free imported materials (or rice straw in upland areas) will be used for erosion control. ◢ Vehicles and equipment will arrive at the project site clean and weed-free. All equipment entering the project site from weed-infested areas or areas of unknown weed status will be cleaned of all attached soil or plant parts before being allowed into the project site. Vehicles and equipment will be cleaned using high-pressure water or air at designated weed-cleaning stations after exiting a weed-infested area. Cleaning stations will be designated by a botanist or noxious weed specialist and located away from aquatic resources. Equipment will be inspected by the on-site environmental monitor for mud or other signs that weed seeds or propagules could be present before use in the project site. If the equipment is not clean, the monitor will deny entry into work areas. ◢ If designated weed-infested areas are unavoidable, the plants will be cut, if feasible, and disposed of in a landfill in sealed bags or disposed of or destroyed in another manner acceptable to TRPA or other agencies as appropriate. If cutting weeds is not		

Table S-1 Summary of Resource Topics with Impacts and Avoidance, Minimization, and/or Mitigation Measures

Resource Topics/Impacts	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) before Mitigation (by Alternative)		Avoidance, Minimization, and/or Mitigation Measures	Environmental Consequences (NEPA)/ Impact Determinations (CEQA, TRPA) after Mitigation (by Alternative)	
	NEPA	CEQA/TRPA		NEPA	CEQA/TRPA
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			feasible, layers of mulch, degradable geotextiles, or similar materials will be placed over the infestation area to minimize the spread of seeds and plant materials by equipment and vehicles during construction. These materials will be secured so they are not blown or washed away. ◢ Locally collected native seed sources for revegetation shall be used when possible. Plant and seed material will be collected from or near the project site, from within the same watershed, and at a similar elevation when possible and with approval of the appropriate authority. Persistent nonnatives such as cultivated timothy (*Phleum pretense*), orchard grass (*Dactylis glomerata*), or ryegrass (*Lolium* spp.) shall not be used.		

ATTACHMENT 1 TO TABLE S-1

Mitigation Measure 3.13-1b: Reduce short-term construction-related fugitive dust (PM_{10} and $PM_{2.5}$)

Table 3.13-8 Best Available Control Measures

Source Category	Control Measure	Guidance
Backfilling	01-1 Stabilize backfill material when not actively handling; and 01-2 Stabilize backfill material during handling; and 01-3 Stabilize soil at completion of activity.	◢ Mix backfill soil with water prior to moving. ◢ Dedicate water truck or high capacity hose to backfilling equipment. ◢ Empty loader bucket slowly so that no dust plumes are generated. ◢ Minimize drop height from loader bucket.
Clearing and grubbing	02-1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing; and 02-2 Stabilize soil during clearing and grubbing activities; and 02-3 Stabilize soil immediately after clearing and grubbing activities.	◢ Maintain live perennial vegetation where possible. ◢ Apply water in sufficient quantity to prevent generation of dust plumes.
Clearing forms	03-1 Use water spray to clear forms; or 03-2 Use sweeping and water spray to clear forms; or 03-3 Use vacuum system to clear forms.	◢ Use of high pressure air to clear forms may cause exceedance of Rule requirements.
Crushing	04-1 Stabilize surface soils prior to operation of support equipment; and 04-2 Stabilize material after crushing.	◢ Follow permit conditions for crushing equipment. ◢ Pre-water material prior to loading into crusher. ◢ Monitor crusher emissions opacity. ◢ Apply water to crushed material to prevent dust plumes.
Cut and fill	05-1 Pre-water soils prior to cut and fill activities; and 05-2 Stabilize soil during and after cut and fill activities.	◢ For large sites, pre-water with sprinklers or water trucks and allow time for penetration. ◢ Use water trucks/pulls to water soils to depth of cut prior to subsequent cuts.
Demolition-mechanical/ manual	06-1 Stabilize wind erodible surfaces to reduce dust; and 06-2 Stabilize surface soil where support equipment and vehicles will operate; and 06-3 Stabilize loose soil and demolition debris.	◢ Apply water in sufficient quantities to prevent the generation of visible dust plumes
Disturbed soil	07-1 Stabilize disturbed soil throughout the construction site; and 07-2 Stabilize disturbed soil between structures	◢ Limit vehicular traffic and disturbances on soils where possible. ◢ If interior block walls are planned, install as early as possible. ◢ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes.
Earth-moving activities	08-1 Pre-apply water to depth of proposed cuts; and 08-2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction; and 08-3 Stabilize soils once earth-moving activities are complete.	◢ Grade each project phase separately, timed to coincide with construction phase. ◢ Upwind fencing can prevent material movement on site. ◢ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes.
Importing/ exporting of bulk materials	09-1 Stabilize material while loading to reduce fugitive dust emissions; and 09-2 Maintain at least 6 inches of freeboard on haul vehicles; and 09-3 Stabilize material while transporting to reduce fugitive dust emissions; and	◢ Use tarps or other suitable enclosures on haul trucks. ◢ Check belly-dump truck seals regularly and remove any trapped rocks to prevent spillage. ◢ Comply with track-out prevention/mitigation requirements.

Table 3.13-8 Best Available Control Measures

Source Category	Control Measure	Guidance
	09-4 Stabilize material while unloading to reduce fugitive dust emissions; and 09-5 Comply with Vehicle Code Section 23114.	◢ Provide water while loading and unloading to reduce visible dust plumes.
Landscaping	10-1 Stabilize soils, materials, slopes.	◢ Apply water to materials to stabilize ◢ Maintain materials in a crusted condition ◢ Maintain effective cover over materials ◢ Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes ◢ Hydroseed prior to rainy season
Road shoulder maintenance	11-1 Apply water to unpaved shoulders prior to clearing; and 11-2 Apply chemical dust suppressants and/or washed gravel to maintain a stabilized surface after completing road shoulder maintenance.	◢ Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs. ◢ Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs.
Screening	12-1 Pre-water material prior to screening; and 12-2 Limit fugitive dust emissions to opacity and plume length standards; and 12-3 Stabilize material immediately after screening.	◢ Dedicate water truck or high-capacity hose to screening operation. ◢ Drop material through the screen slowly and minimize drop height. ◢ Install wind barrier with a porosity of no more than 50% upwind of screen to the height of the drop point.
Staging areas	13-1 Stabilize staging areas during use; and 13-2 Stabilize staging area soils at project completion.	◢ Limit size of staging area. ◢ Limit vehicle speeds to 15 mph. ◢ Limit number and size of staging area entrances/exits
Stockpiles/bulk material handling	14-1 Stabilize stockpiled materials. 14-2 Stockpiles within 100 yards of off-site occupied buildings must not be greater than 8 feet in height; or must have a road bladed to the top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage.	◢ Add or remove material from the downwind portion of the storage pile. ◢ Maintain storage piles to avoid steep sides or faces.
Traffic areas for construction activities	15-1 Stabilize all off-road traffic and parking areas; and 15-2 Stabilize all haul routes; and 15-3 Direct construction traffic over established haul routes.	◢ Apply gravel/paving to all haul routes as soon as possible to all future roadway areas ◢ Barriers can be used to ensure vehicles are only used on established parking areas/haul routes.
Trenching	16-1 Stabilize surface soils where trencher or excavator and support equipment will operate; and 16-2 Stabilize soils at the completion of trenching activities.	◢ Pre-watering of soils prior to trenching is an effective preventive measure; for deep trenching activities, pre-trench to 18 inches, soak soils via the pre-trench, and resume trenching. ◢ Washing mud and soils from equipment at the conclusion of trenching activities can prevent crusting and drying of soil on equipment.
Truck loading	17-1 Pre-water material prior to loading; and 17-2 Ensure that freeboard exceeds 6 inches (CVC 23114)	◢ Empty loader bucket such that no visible dust plumes are created ◢ Ensure that the loader bucket is close to the truck to minimize drop height while loading

Table 3.13-8 Best Available Control Measures

Source Category	Control Measure	Guidance
Turf Overseeding	18-1 Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards; and 18-2 Cover haul vehicles prior to exiting the site.	◢ Haul waste material off site immediately.
Unpaved roads/ parking lots	19-1 Stabilize soils to meet the applicable performance standards; and 19-2 Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots.	◢ Restricting vehicular access to established unpaved travel paths and parking lots can reduce stabilization requirements.
Vacant land	20-1 In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicle and/or off-road vehicle trespassing, parking and/or access by installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures.	

CVC = California Vehicle Code; mph = miles per hour

Source: South Coast Air Quality Management District, Rule 403, June 2005