



State Route 224 Bus Rapid Transit Project Categorical Exclusion

Summit County, Utah

December 19, 2022



FTA REGION 8 CATEGORICAL EXCLUSION WORKSHEET

FTA Region 8 provides this Categorical Exclusion (CE) worksheet to help project sponsors (recipients) comply with the National Environmental Policy Act (NEPA). The information collected will help to better define the project scope for environmental analysis, identify potential impacts, and determine if other environmental laws and permits apply. If sufficiently completed, it can enable FTA to determine that the project does not result in significant environmental impacts and meets the criteria for a CE. All activities and projects to be supported with federal funds require a NEPA environmental finding as a prerequisite to award of funds.

This CE Worksheet should be completed for C-List projects involving construction and *all* D-List projects. **If a C-List project does not involve construction, you do not need to complete this worksheet.** All parts below must be completed prior to FTA review. Compliance with other environmental requirements must also be completed before FTA will issue a determination that the project meets the criteria for a CE. Certain project activities may not begin until this process is complete. For guidance on completing this worksheet, please refer to the CE Worksheet Instructions.

Prior to transmitting a grant application, complete and submit this CE Worksheet using the CE Worksheet Instructions allowing sufficient time for FTA review, especially if other environmental laws or permits apply. For assistance, please contact your assigned FTA Region 8 Pre-Award Manager, or you may call the office at 303-362-2400. To “check” a box, double-click on the box and select “checked” under default value.

PART A: PROJECT INFORMATION

Project Sponsor <i>High Valley Transit, Summit County, UT</i>	FTA Application No/FAIN
Project Contact (include mailing address, email address and phone number) <i>Caroline Rodriguez, Executive Director High Valley Transit 1885 W. Ute Blvd, Park City, UT 84098 crodriguez@summitcounty.org 617-817-7769</i>	
Project Title <i>S.R. 224 Bus Rapid Transit Project</i>	

Project Description

Summit County and project partners Park City and the Utah Department of Transportation (UDOT) are proposing to implement bus rapid transit (BRT) service on State Route (S.R.) 224 in the communities of Snyderville, an unincorporated area, and Park City in Summit County, Utah. The Project is specifically intended to enable the existing route 10 White express bus service, known locally as the Electric Xpress and one of Park City Transit's busiest routes in its service area, to operate as a true BRT system by providing frequent, fast, and reliable transit service. Given existing congestion conditions, vehicle backing, delay, and poor travel time on S.R. 224—coupled with constrained parking in Park City's Old Town and at other key destinations along S.R. 224—there is a need to provide a reliable high-quality transit option in the corridor.

The Project would involve constructing a 7.1-mile, fixed-guideway BRT system between the Kimball Junction Transit Center and the Old Town Transit Center, located in downtown Park City. The Project would add dedicated lanes in each direction on much of S.R. 224 exclusively for use by transit vehicles, school buses, and emergency vehicles. The Project also includes operational improvements at intersections, along with constructing new transit stations at two locations (and upgrading three other existing stations) and improving active transportation facilities.

The BRT would operate in 12-foot-wide dedicated transit lanes on each side of S.R. 224 between Olympic Boulevard and the S.R. 248 intersection (a distance of just over 5 miles). The BRT would operate in mixed-flow traffic between the Kimball Junction Transit Center and Olympic Boulevard and within the Canyons Village transit hub, and would also merge into mixed-flow traffic north of the S.R. 224 and S.R. 248 intersection (Kearns Boulevard) en route to the Old Town Transit Center. Between Olympic Boulevard and Payday Drive, the 12-foot-wide dedicated transit lanes would be separated from the general-purpose lanes by a 2-foot-wide buffer. A 10-foot-wide shoulder would be installed outside the dedicated transit lanes. (To reduce right-of-way impacts for about 0.6 mile between Payday Drive and the Kearns Boulevard intersection, the dedicated transit lane width on each side of S.R. 224 would narrow to 11 feet wide, with a 1-foot-wide buffer and 8-foot-wide outside shoulder.) The BRT route would loop back on the same route. For more information, see Attachment A, Conceptual Design Drawings, Typical Sections, and Conceptual Trail Offset Exhibit.

The dedicated transit lanes would serve existing Park City Transit and High Valley Transit routes and would be used exclusively by transit vehicles, school buses, and emergency vehicles. The transit services using the dedicated transit lanes would primarily be the existing Electric Xpress/10 White express bus service and High Valley Transit's bus route 101-Spiro/224 Local. In addition, about 25 school buses would use the dedicated transit lanes during both the AM and PM hours.

The roadway changes associated with the Project consist of pavement cuts and widening the existing roadway; therefore, the grade of S.R. 224 would remain similar to the existing grade. The depth of disturbance would range from about 2 feet for the total pavement depth to 4 to 7 feet for water lines and 7 to 12 feet for sewer lines. In addition, several landscape or retaining walls would be installed along S.R. 224 to minimize right-of-way impacts or to replace existing retaining walls in areas of existing large slopes next to the road. These walls vary in length from 2,000 to 900 feet, and the approximate wall heights range from 3 feet to 20 feet (in an area of a very large existing slope). In addition, about 1,600 feet of guardrail would be installed behind the edge of pavement to avoid wetland impacts outside the existing right-of-way.

As on other multilane streets, turning movements typically involve conflicts with people walking and biking and with other traffic flows, and require special consideration. Because the dedicated transit lanes would be constructed on the outside of the general-purpose travel lanes, special design attention was given to right turns. Vehicles would need to cross or share the dedicated transit lanes to access driveways. Drivers would need to watch and yield for oncoming buses in the dedicated transit lane. The dedicated transit lanes could be prone to encroachment by other vehicles beyond those drivers needing to access driveways. The dedicated transit lanes would need to be enforced. As part of the Project, all of the right turn lanes at signalized intersections are shared with the BRT lanes in what are known as business access and transit (BAT) lanes. The BAT lanes would be used only by right-turning vehicles and buses in order to help the buses move more efficiently through traffic while providing better access to businesses and neighborhoods.

Special design features would enhance the BRT travel experience, especially in areas of mixed traffic operation. Elements such as traffic signal priority (TSP) and queue jump lanes would help prioritize buses and provide them with right-of-way privileges in the mixed-flow lane sections. Deer Valley Drive would be restriped to include Park City's bicycle lane plans.

The Project includes six brand-identified stations including four existing Electric Xpress/10 White stops (Kimball Junction Transit Center, Canyons Transit Hub, Fresh Market, and Old Town Transit Center). Two additional shoulder-side stations would be constructed on each side of S.R. 224 at Bobsled Boulevard and Thaynes Canyon Drive. The stations would include a platform, canopy, landscaped planter, and station amenities. Each station would sit on a concrete bus pad elevated above the sidewalk curb height between 6 and 14 inches above the street grade. The stations would be about 125 feet long with a platform 100 feet long to accommodate two 40-foot-long BRT vehicles. Station shelters would be roughly comparable in size to existing Park City bus passenger shelters in the area, though somewhat longer.

Currently, Summit County anticipates that the station shelters would include a combination of glass panels and solid support members in order to have a minimal visual "footprint." Station canopies would be opaque features that provide shelter from sun, rain, and snow. The canopies would be about 10 to 15 feet high, depending on the incorporation of decorative architectural features that would be determined during final design.

The BRT service is planned to open in 2025 and would operate 7 days per week between 6:55 AM and 11:55 PM at 10-to-15-minute headways, which would be an upgrade from the current route 10 White express bus service depending on the time of day and traffic conditions along S.R. 224.

For more information, see Attachment B.0, Purpose and Need and Physical and Operating Characteristics of the Project Technical Report.

Project Location (Include physical address)

The Project is a linear project along the existing S.R. 224 corridor. The northern terminus of the existing 10 White express bus service and the future BRT project corridor is the Kimball Junction Transit Center, located behind the Sheldon Richins Building at 1885 W. Ute Boulevard in Kimball Junction. The southern terminus of the existing 10 White express bus service and the future BRT project corridor is just over 7 miles south at the Old Town Transit Center, located in downtown Park City.

Is this project included in the current approved TIP and/or STIP?

YES – TIP/STIP ID/Page No.: NO – When will it be added?

Yes, on page 54 of 114 of the draft 2022–2027 STIP.

Is this a re-evaluation of a project previously evaluated/approved or currently under construction?

NO

YES

PART B: PROPOSED CATEGORICAL EXCLUSION DETERMINATION

Select the CE category under 23 CFR 771.118(c) or (d) that best describes the proposed project (select only one). FHWA and FRA CEs also may be used, if applicable. CE descriptions are included in the CE Worksheet Instructions.

CE (e.g., C-9 or D-6):

PART C: ENVIRONMENTAL EVALUATION

For each of the following resources, identify, evaluate and describe any adverse impacts to the built (including social and economic) and natural environment resulting from the proposed project. Select NO, if a resource is not present on or near the proposed project area, or if there are no adverse impacts. Select YES, if a resource is present and will be impacted; and succinctly describe the impacts, any mitigation necessary to minimize impacts, and any permits required. Please explain your answer. The level of detail you provide should be commensurate with the complexity of the project. For guidance on how to evaluate each resource for impacts, see the CE Worksheet Instructions. If, through your evaluation, you believe the project *will* result in significant environmental impacts or you aren't sure, and/or it is likely to generate substantial controversy on environmental grounds, contact FTA Region 8.

1. Land Use and Zoning

Is the proposed project incompatible or inconsistent with existing or future land use and/or zoning in the project area? Describe the surrounding land use and zoning. Provide a map with project location and surrounding land uses.

NO

YES

Effects on Land Use and Zoning

The Project would not cause adverse impacts to land use, land use patterns, access to land, or zoning in the land use and zoning evaluation area. The Project would be constructed largely within existing roadway right-of-way; therefore, not much land zoned for other uses would be converted to transportation use.

The Project would improve overall transportation mobility to land uses in the Kimball Junction area and Park City as well as to places in between. Although most of the project improvements would be implemented within the existing roadway right-of-way, as shown in Table 1, about 2.3 acres of land currently zoned as commercial, open space, or residential, would be converted to transportation use, which is consistent with the partners’ transportation plans for the corridor.

About 1.67 acres of residentially zoned land would be converted to transportation use, of which 0.17 acre is held in the Miss Billies/Koleman conservation easement. The 0.17-acre impact to the Miss Billies/Koleman conservation easement would occur because the Basin Rec transportation trail would be realigned in this location. No recreation activities currently occur on the Miss Billies/Koleman conservation easement parcel. Given that the 0.17-acre impact to the parcel would consist of disturbed road shoulders, developed land between the road shoulder and Basin Rec transportation trail (power lines), and the Basin Rec transportation trail (which would be replaced in full), this acquisition would not harm the larger conservation easement parcel. The 0.06 acre of open-space land that would be converted to transportation use is also disturbed road shoulder or disturbed space between the road shoulder and the Basin Rec transportation trail, and none of the recreation activities that might occur on the open-space land would be affected.

Acquiring the right-of-way needed for the Project would affect individual landowners and businesses through partial sliver acquisitions of property (see Section C.2, Land/Property Acquisition, Relocation, Leases, and Easements, of this Categorical Exclusion). No homes or businesses would need to be acquired for the Project, and access to all commercial centers and neighborhoods would remain intact.

Effects on Future Land Use and Regional Development

The Project is consistent with and complementary to existing land uses and zoning. It complies with regional and local plans and policies including the Snyderville Basin General Plan; various Park City plans including the Park City General Plan, Park City Forward, Park City and Summit County’s short-range transit development plan, and Park City’s Short Range Transit Plan (in progress); and various Summit County documents in support of High Valley Transit’s services (<https://highvalleytransit.org/studies>).

Effects on Employment Opportunities

By improving transit accessibility and connections, the Project would support significant economic benefits for the region’s residents, including increased employment and workforce development. This would be particularly helpful for residents living in low-density areas or underserved neighborhoods, or who do not have personal vehicles, since they can significantly reduce their commute times by pre-booking entirely

Table 1. Land Use Converted to Transportation Use

Land Use	Acres Impacted
Commercial/mixed use	0.13
Open space ^a	0.06
Residential	2.1
Total	2.3

^a About 0.17 acre of residentially zoned land that would be converted to roadway use is in conservation easement.

transit-accessible trips.

For more information, including a map of the project location and surrounding land uses, see the Land Use and Zoning Technical Report in Attachment B.1.

2. Land/Property Acquisition, Relocation, Leases and Easements

Does the proposed project require any land/property acquisition, easement or permit? Note: for acquisitions over \$1 million, FTA concurrence with the property's valuation is also required (see Circular 5010.E). Explain.

NO

YES

Permanent Right-of-way Acquisition

Most of the roadway widening to accommodate the transit stations, intersection improvements, dedicated transit lanes, and the realigned Basin Express trail would occur within existing highway right-of-way. However, in areas where the existing right-of-way is narrower, Summit County anticipates some property acquisition. For the portions of the BRT service operating in mixed-flow traffic, stations would be located on either the street pavement or the park strip, neither of which would require purchasing any right-of-way from property owners.

As shown in Table 1, Right-of-way Parcel Impacts, and the right-of-way impact figures in Appendix A of the Property Acquisition Technical Report, the Project would require minor strips of property from several open-space, residential, and business parcels on S.R. 224, though no structures would be affected. In total, about 2.8 acres of right-of-way would need to be acquired for the Project.

Because property impacts are based on preliminary engineering, the acquisitions could change and would be verified during the final design of the Project and during the property-acquisition process. For this analysis, the numbers of partial property acquisitions were calculated from Summit County records of property data as of August 25, 2022.

Temporary Construction Easements

At this preliminary level of design, the project team does not yet know exactly where temporary construction easements would be needed. However, the design footprint used to assess impacts to resources includes the anticipated limits of physical disturbance, including space for potential temporary construction workspaces, and the limits of any anticipated right-of-way and temporary easement acquisition. Actual locations of temporary construction easements would be determined during final design.

Mitigation Measures

Summit County will conduct acquisitions in accordance with the provisions in the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 USC Section 61 and the implementing regulation 49 CFR Part 24). This process will ensure just compensation for all properties and will minimize any adverse effects on the current owners and residents.

For more information, see the Property Acquisition Technical Report in Attachment B.2.

3. Environmental Justice

Is the proposed project located in a neighborhood containing minority or low-income residents or businesses? If yes, will it result in disproportionately high and adverse impacts? Explain.

NO

YES

Although there are low-income and minority populations in the environmental justice evaluation area, as described in the Environmental Justice Technical Report in Attachment B.3, the Project would not directly affect any population designated as low income or any population of a specific race or ethnicity. Therefore, the project partners do not expect the Project to result in a disproportionately high and adverse effect on environmental justice populations.

The Project would directly serve environmental justice populations that live along the transit corridor between the Kimball Junction Transit Center and the Old Town Transit Center. The corridor improvements are intended to benefit the occupants of the area and the users of all the modes of transport through the corridor. Many of the people living along the route currently use the existing route 10 White express bus service and will continue to use the improved transit service.

The Project does not include any features that would result in disproportionately high and adverse impacts—such as impacts to air quality, hazardous waste and hazardous materials, noise, parks and recreation, public health and safety, or relocations—to minority or low-income populations with respect to human health and the environment. Construction of the Project would have temporary traffic impacts that could affect all populations along the S.R. 224 corridor but would not have a high or disproportionate impact on environmental justice communities.

Changing the existing standard 10 White express bus service to BRT and improving service efficiency, increasing reliability, and reducing wait times would benefit environmental justice populations that rely on the transit system. Low-income and minority populations have historically been underserved by government services. On-board surveys, employer feedback, and anecdotal evidence indicates that a majority of High Valley Transit and Park City Transit riders self-identify as speaking English less than well, being from an ethnic minority, lacking access to a personal automobile, and/or living at or below the federal poverty level. Geolocated boarding/alighting data support these observations. The project partners can extrapolate that their robust fare-free transit service benefits disadvantaged communities at a much higher rate than the Summit County population in general.

For more information, see the Environmental Justice Technical Report in Attachment B.3.

4. Cultural, Historic and Archaeological Resources

Are there any cultural, historic or archaeological resources on or near the proposed project site? If yes and the proposed project has the potential to affect such resources, the Section 106 process must be followed and a Section 4(f) evaluation may be required. Explain, including what steps were taken to make the determination.

NO

YES

If YES resources are present, does Section 106 apply? Explain.

NO

YES – Provide Section 106 Consultation Documentation

If YES resources are present, does Section 4(f) apply? Explain.

NO

YES – Provide Section 4(f) Evaluation

Section 106 Evaluation

Section 106 of the National Historic Preservation Act of 1966, as amended, requires federal agencies to take into account the effects of their undertakings on historic properties. FTA initiated Section 106 consultation with the Utah State Historic Preservation Office (SHPO) on August 31, 2021. Tribal consultation was initiated on September 24, 2021. The Utah SHPO reviewed and commented on FTA’s area of potential effects (APE) and identification of proposed methodologies on September 3, 2021. None of the Native American tribes contacted by FTA requested to be consulting parties, to meet with FTA, or to provide input on the proposed undertaking. For copies of these letters, see Appendix A, Section 106 Consultation, in Attachment B.4, Cultural, Historic, and Archaeological Resources Technical Report. FTA continues to coordinate with the tribes to solicit their comments on the environmental effects of the Project.

FTA has determined that the Project would result in no historic properties affected for 18 of the 20 historic buildings in the project APE that are eligible for the National Register of Historic Places (NRHP), the one NRHP-eligible archaeological resource site (42SM157, Snyderville Townsite), and the Park City Main Street Historic District.

FTA has determined that the Project would result in no adverse effect to the two remaining NRHP-eligible historic buildings (5373 N. Highway 224 and 4459 N. Highway 224) due to strip takes of land from the frontages of each property. No new permanent features associated with the Project would be placed on either property.

FTA consulted with the Utah SHPO, which concurred with FTA’s Determination of Eligibility and Finding of Adverse Effect for historic properties on November 1, 2022 (see Appendix A, Section 106 Consultation, in Attachment B.4, Cultural, Historic, and Archaeological Resources Technical Report).

FTA will provide information to the public regarding impacts to historic properties at the public open house. All consulting parties and all Native American tribes initially contacted for this project (see Section 4.4, Agencies, Tribes, and Other Consulting Parties and Their Roles, in Attachment B.4, Cultural, Historic, and Archaeological Resources Technical Report) will receive instructions to download an electronic copy of this Categorical Exclusion.

Unanticipated Historic Properties and Mitigation Measures for Potential Adverse Effects

In accordance with 36 CFR Section 800.13(b), FTA is providing for the protection, evaluation, and treatment of any historic property discovered prior to or during construction. If unanticipated historic and/or archaeological resources are inadvertently discovered during construction, the contractor will immediately stop work and consult with the Utah SHPO and Summit County. If potential adverse effects on historic properties are identified, FTA will continue consultation with the SHPO to resolve those effects before work resumes.

No mitigation measures for the adverse effects are currently warranted since no such impacts have been identified to date.

Section 4(f) Evaluation

The Project would have a Section 4(f) use with de minimis impact of two properties (the two NRHP-eligible historic buildings located at 5373 N. Highway 224 and 4459 N. Highway 224) due to a finding of no adverse effect under Section 106. For historic sites, a use with de minimis impact means that FTA has determined, in accordance with 36 CFR Part 800, that the historic property in question would not be affected by the project or that the project would have “no adverse effect” on the historic property.

FTA will provide information to the public regarding the Section 4(f) use with de minimis impact of the two properties during the public comment period for this Categorical Exclusion.

For more information, see the Cultural, Historic, and Archeological Resources Technical Report in Attachment B.4.

5. Visual/Aesthetics

Will the proposed project degrade the existing visual/aesthetic character or quality of the site, its surroundings, and/or recognized view sheds? Explain.

NO

YES

The Project would have a limited impact to the visual landscape, since there would be very little to no change from the existing conditions. S.R. 224 would be widened to accommodate the dedicated transit lanes and new shoulders on each side of the roadway; however, the wider road is mostly within the existing transportation corridor and would have little impact on the visual character of the area.

Park City Transit's route 10 White express bus service, along with High Valley Transit's bus route 101-Spiro/224 Local, High Valley Transit's Micro on-demand transit vehicles, and Park City Transit's buses, currently operate along the project extent, and some of the features of the Project are already present at existing bus route stops on S.R. 224 (shelters, benches, signs, and trash cans). These existing bus stop features would be enhanced in a thoughtful and context-sensitive way.

Dedicated Transit Lanes

There would be slight visual changes on S.R. 224 in that the road would be widened to accommodate the new side-running dedicated transit lanes and shoulder. In various locations along S.R. 224, retaining walls ranging from 3 feet high to 20 feet high (in steep slope locations) are included in the design to minimize property and landscape impacts. In addition, guardrail would be installed near Meadows Drive to minimize right-of-way impacts and impacts to McLeod Creek.

Stations

Transit stations would be designed to be sensitive to the local character of the community and not detract from the context of surrounding environment and architecture. The design would minimize potential visual impacts to historic resources and the visual setting through the proposed transit corridor.

Stations would include a platform, canopy, landscaped planter, and station amenities. The station would sit on a concrete bus pad elevated above the sidewalk curb height between 6 and 9 inches above the street grade. Stations would be about 125 feet long, with a platform length of 100 feet to accommodate two 40-foot-long BRT vehicles.

Station shelters would be designed to include a combination of glass panels and solid support members that would have a minimal visual "footprint." Station canopies would be opaque features that provide shelter from sun, snow, and rain and would be about 10 to 15 feet high, depending on the incorporation of decorative architectural features that would be determined during final design.

The introduction of the enhanced station structures (such as station canopies and lighting) would not substantially screen views of homes or businesses, nor would it obstruct views of the surrounding fields and mountains that are visible from locations along the project extent. The Project's features would be compatible with the scale of the existing built form and, overall, would provide a unifying effect on the streetscape's appearance as seen by motorists as well as pedestrians along S.R. 224 and the adjacent trail.

6. Park and Recreation Resources

Are there any public parks and/or recreation resources on or near the proposed project area that would be impacted? If the proposed project has the potential to impact publicly-owned parks or recreation areas, a Section 4(f) evaluation may be required. If a park is funded with LWCF funds, Section 6(f) may apply. Explain.

NO

YES

If YES, does Section 4(f) apply? Explain.

NO

YES – Provide Section 4(f) Evaluation

If YES, does Section 6(f) apply? Explain.

NO

YES – Provide documentation

Effects on Parks and Other Recreation Resources

There are no parks in the recreation resources evaluation area. The Project would not affect the Canyons Golf Course or the Park City Golf Course. Landscape walls would be installed near the Park City Golf Course, located at 1541 Thaynes Canyon Drive, to avoid any impacts to the golf course property where the dedicated transit lanes would begin to tie into the existing roadway cross section.

Effects on Trails

As part of the Project, the existing 10-foot-wide paved Basin Express shared-use trail that runs adjacent to S.R. 224 on the east side would need to be realigned in some locations because the S.R. 224 cross section would be widened. As part of the trail realignment, a baseline minimum 4-foot-wide buffer from trail edge to the top back of curb would be constructed, and the new trail would be widened to 12 feet to meet current Summit County and UDOT standards. The addition of the dedicated BRT lane plus the shoulder and a high-back curb would greatly enhance safety for trail users compared to the existing conditions, since the trail would be even further separated from the busier general-purpose travel lanes by a minimum of 30.5 feet compared to the current 15-foot offset. Figure A.3 in Attachment A shows the 12-foot-wide trail, buffer, and offset. The project partners will work together during final design to explore additional trail placement opportunities and trail design enhancements.

Section 4(f) Applicability

The Basin Express shared-use trail is considered a transportation trail by Basin Recreation, the entity that owns and manages nearly 2,300 acres of open space and has built and/or maintains 170 miles of trails, including the Basin Express trail. Because the Basin Express trail is a designated transportation trail per Basin Recreation (2022) and is an integral part of the local transportation system, the requirements of Section 4(f) do not apply since it is not a recreation area. Moreover, adjustments and changes in the alignment of the trail in some locations due to the Project would not impair the continuity of the trail, and the trail would be kept whole.

No other trails or recreation resources would be affected by the Project.

Mitigation Measures

During the final design for the Project, the Basin Express trail will be further enhanced for safety, aesthetics, and user experience. During final design, the project partners will apply best practices from other side-running BRT facilities around the country to further develop the right approach for placing signs. Measures that will be incorporated into the trail design during the final design phase of the Project include:

- *Allow for additional horizontal and vertical variability during final design to further enhance the eventual trail alignment and provide a superior experience for trail users.*
- *Balance utility relocations and further trail enhancements during final design.*
- *Develop landscape retaining walls and other grading measures during final design to look for further opportunities to enhance the trail alignment.*
- *Look for opportunities for other design refinements, such as roadway centerline shifts, for example, that would be developed with the project partners.*

7. Noise and Vibration

Are there any noise and/or vibration sensitive receptors located near the proposed project that would be impacted? Explain.

NO

YES

Effects on Noise

The noise analysis used the clustering method, in which noise-sensitive receptors close to each other and the project extent are grouped together (creating clusters) and are represented by a single noise-sensitive receptor within that cluster. The Project is predicted to cause moderate noise impacts at first-row residences along S.R. 224 in two residential clusters. These moderate impacts would occur:

- Between New Park Boulevard and Bear Hollow Drive at 22 first-row residences on the east side of S.R. 224 and at 6 residences on the west side of the corridor*
- Between Payday Drive and Thaynes Canyon Drive at the Park City Peaks Hotel and at 6 first-row units at Jupiter Inn Condominiums on the east side of the corridor*

In both cases, the moderate impact would be due to an increase of 2 A-weighted decibels (dBA) compared to the existing conditions. The impacts would primarily be due to shifting the dedicated transit lane closer to receptors, the changes in transit headways, and the increased number of nighttime operations subject to the additional 10-dBA penalty for nighttime operations (discussed in Section 4.1, Noise Regulatory Setting, of the Noise and Vibration Technical Report in Attachment B.7). Building-induced shielding from first-row residences would reduce project-related noise levels at residences behind the first row, and noise impacts are not projected to occur at residences in the second row and beyond.

Mitigation Measures. *Noise walls might reduce transit noise at the receivers noted in the first bulleted item above; however, not enough engineering design details are available at this time to fully evaluate the cost and effectiveness of noise walls. During the final design of the Project, Summit County will conduct a more-detailed analysis of noise-mitigation measures, which will include an assessment of noise walls, including their feasibility and reasonableness (including cost-effectiveness), using UDOT's criteria from its noise-abatement policy (UDOT Policy 08A2-01, Noise Abatement, revised May 28, 2020). The goal of noise abatement is to substantially reduce noise, which might or might not result in noise levels below the noise impact criteria thresholds. The small magnitude of the projected increase in the day-night average sound level (L_{dn}) with the Project might make it difficult for noise walls to meet UDOT's cost-effectiveness criteria.*

The Park City Peaks Hotel and the Jupiter Inn Condominiums do not have outdoor noise-sensitive areas between the buildings and the roadway. Therefore, during final design, Summit County will evaluate the noise impacts noted in the second bulleted item above using the indoor noise criterion of 45 dBA. In this area, all existing transit traffic currently uses mixed-flow lanes, including the electric buses, which are quieter than the diesel buses. Although cumulative noise levels are projected to increase on an L_{dn} basis, it's reasonable to assume that transit noise with the Project would not be louder than existing noise levels since buses currently travel the proposed BRT corridor. The hotel's building envelope would likely continue to provide adequate outdoor-to-indoor transmission loss (that is, noise reduction) to facilitate overnight sleep under existing conditions. Therefore, no additional mitigation is needed beyond confirming that indoor locations at the Park City Peaks Hotel and Jupiter Inn Condominiums meet the indoor criterion of 45 dBA.

Effects on Vibration

The Project does not meet the conditions in FTA's Transit Noise and Vibration Impact Assessment Manual (2018) under which vibration impacts are likely.

For more information, see the Noise and Vibration Technical Report in Attachment B.7.

8. Air Quality

Is the proposed project located in an Environmental Protection Agency (EPA)-designated non-attainment or maintenance area?

NO

YES - indicate the criteria pollutant and contact FTA to determine if a hot spot analysis is necessary.

- Carbon Monoxide (CO)
- Sulfur Dioxide (SO₂)
- Lead (Pb)
- Nitrogen Dioxide (NO₂)
- Ozone (O₃)
- Particulate Matter (PM₁₀)
- Particulate Matter (PM_{2.5})

Does the proposed project require a conformity analysis or regional analysis under 40 CFR Part 93?

NO

YES

If the non-attainment area is also in a metropolitan area, is the proposed project required to be and included in the MPO's air quality conformity analysis for the Transportation Improvement Program (TIP)?

NO

YES - Date of FHWA/FTA conformity finding

Because the proposed transit corridor is in an attainment area for all transportation-related pollutants and the area is not on the verge of falling into nonattainment, air quality is not a concern for this project. Moreover, the 10 White express bus service is already a 100% emission-free transportation mode that contributes to improved air quality in the region. Further, by moving more people on S.R. 224 with fewer vehicles, the Project would contribute to reduced greenhouse gas emissions.

9. Hazardous Materials

Is there any known or potential contamination at the proposed project site that would be impacted? Describe the steps taken to make the determination (Phase I ESA, etc.) and results. Note the mitigation and clean-up measures that will be taken to remove hazardous materials from the project site, if applicable.

NO

YES

The project team's review of various sources identified five sites of primary concern and eight sites of secondary concern in the hazardous materials evaluation area.

Sites of Primary Concern

The five sites of primary concern are Site 2 – Sparkling Dry Cleaners, Site 7 – Top Stop C-15, Site 11 – Marsac Mill, Site 12 – Old Town Intermodal, and Park City's Soil Ordinance boundary.

- **Site 2 – Sparkling Dry Cleaners.** Buses would operate in mixed-flow traffic between Ute Boulevard and Olympic Parkway (New Park Boulevard), and no additional lanes would be constructed in this portion of the proposed transit corridor. In addition, because no major excavations are planned south of Olympic Parkway, any residual contamination from Site 2 – Sparkling Dry Cleaners would not pose a significant risk to construction.
- **Site 7 – Top Stop C-15.** Construction of the northbound dedicated transit lane at Thaynes Canyon Drive (Snow Creek Drive) would require a sliver of right-of-way and a temporary construction easement from the property containing Site 7 – Top Stop C-15. The intersection is in a cut zone. If excavations are needed for relocating utilities or constructing drainage features, contaminated soils could be encountered. However, groundwater in this area is about 80 feet deep; therefore, there is a low risk of encountering groundwater. This site is outside the Soil Ordinance boundary.
- **Site 11 – Marsac Mill and Site 12 – Old Town Intermodal.** Buses would operate in mixed-flow traffic on Park Avenue and Deer Valley Drive en route to the Old Town Transit Center. Restriping is planned, but no new construction is required for the Project. Therefore, Site 11 – Marsac Mill and Site 12 – Old Town Intermodal would not be impacted. This area is within the Soil Ordinance boundary, but, because no construction is planned, the soil management requirements of Park City's Soil Ordinance should not apply.
- **Park City's Soil Ordinance Boundary.** The Soil Ordinance boundary starts in the southeast quadrant of the S.R. 224 and Kearns Boulevard intersection but should not extend into the construction area.

These sites identified as sites of primary concern are not expected to present significant risks to planned construction.

Sites of Secondary Concern

The eight sites of secondary concern are not likely to introduce substantial risks to construction unless the site is directly impacted by the Project. The project team identified one site of secondary concern that would be directly impacted by the Project: Site 5 – Blue Roof 7-Eleven #53606.

- **Site 5 – Blue Roof 7-Eleven #53606.** Construction of the northbound dedicated transit lane at Silver Springs Drive (Bear Hollow Drive) would require that the proposed shoulder and trail encroach into the parcel containing Site 5 – Blue Roof 7-Eleven #53606, resulting in direct impacts to this site. Excavations for utilities, walls, and drainage features at this intersection could potentially encounter petroleum-based contaminated soil or groundwater. Groundwater in this area is 10 to 14 feet deep and flows generally to the north. There is a planned retaining wall on the west side of S.R. 224 about 100 feet northwest of Site 5 that could require excavations. If there is residual contamination, it could have migrated into the construction area. This site presents a

moderate risk to construction.

Mitigation Measures

Summit County will prepare a soil and groundwater sampling plan that specifies a sample-collection approach and laboratory analysis methods that are needed to characterize the nature of contamination, if any, near Site 5 (Blue Roof 7-Eleven #53606) and near Site 7 (Top Stop C-15). Based on the analytical results, a soils and groundwater management plan will be prepared to define the proper handling and disposal of contaminated soils and to identify the appropriate handling and treatment, if needed, of groundwater discharges if groundwater is encountered during construction.

If groundwater is encountered during construction, Summit County (or its construction contractor) will obtain coverage for construction dewatering under Utah's General Permit for Construction Dewatering or Hydrostatic Testing (UTG070000) or, if the groundwater is contaminated, a Ground Water Discharge Permit pursuant to state groundwater protection rules (Utah Administrative Code Rule R317-6). These permits require testing and reporting that dewatering discharges do not exceed contaminant concentration limits listed in the permits or, if the groundwater is discharged to a surface water, that the discharge would not cause exceedances of numeric water quality criteria.

The project team does not expect that construction would extend into the Soil Ordinance boundary.

For more information, see the Hazardous Materials Technical Report in Attachment B.9.

10. Farmland

Are there any prime or unique farmlands located at the proposed project site that would be impacted? Explain.

NO

YES

Although some land under conservation easement supports farm animal pasturing and grazing, there are no other agricultural land uses or agricultural-zoned lands in the farmland evaluation area. There are no prime or unique farmlands in the farmland evaluation area; however, there are farmlands of statewide importance in the evaluation area.

Because most of the roadway widening to accommodate the dedicated transit lanes would occur within the existing highway right-of-way, impacts to farmland soils would be minor. A total of 0.21 acre of farmland soils of statewide importance that is outside the existing roadway right-of-way would be converted to transportation use. The impacted farmland soils of statewide importance are not currently farmed or within conservation easement lands. The statewide important farmland soils that would be converted are located immediately adjacent to S.R. 224. No other farmland soils regulated by the Farmland Protection Policy Act (FPPA) would be affected by the Project. The project team consulted UDOT's Environmental Manual of Instruction (2020), Table 5-2, which states that "federal actions that could affect prime and unique farmland must have an FPPA evaluation."

Because neither prime nor unique farmland soils would be affected by the Project, no further action is necessary.

11. Floodplains

Is the proposed project located within the Federal Emergency Management Agency (FEMA) 100-year floodplain or within the floodway? If yes, this project may require further evaluation under EO 11988. Explain.

NO

YES

Effects on Streams

The impacts of the Project to surface waters would be minimal.

Effects on Floodplains

Table 2 shows the acreage of the special flood hazard areas (SFHAs) in the floodplain impact area (the area where the impact boundary and a floodplain intersect), as well as the type of floodplain encroachment that would occur as a result of the Project. As shown in Table 2, there would be about 4.2 acres of impact to Zone A, a minor (0.02-acre) impact to Zone AE (Floodway), and a minor (< 0.01-acre) impact to Zone X (Shaded) floodplains.

Table 2. Acreage of Special Flood Hazard Area Impacts

SFHA Zone	Type of Floodplain Encroachment	Acres of Impact
Zone A	Transverse and longitudinal	4.22
Zone AE Floodway	Transverse	0.02
Zone AO	None	0.00
Zone X (Shaded)	Longitudinal	< 0.01

Floodplain modeling will occur during final design. In general, a no-rise is anticipated, particularly for the locations where minor floodplain encroachments would occur. For the Zone A encroachments that cover a larger area, up to 1 foot of rise is allowed before a Conditional Letter of Map Revision (CLOMR) would be required. A Letter of Map Revision (LOMR) is typically required for all projects that include changes in water surface elevation as a result of physical changes.

Mitigation Measures

As described below and in more detail in Attachment B.11, Floodplains Technical Report, Summit County and/or its final design engineer and construction contractor will implement the following measures during final design and/or construction of the Project to reduce floodplain impacts and to ensure that the Project complies with all applicable regulations:

- During final design, the design of bridges and culverts will follow Federal Emergency Management Agency (FEMA) requirements and the requirements of the UDOT Drainage Manual of Instruction (2018) since S.R. 224 is a facility owned and maintained by UDOT. Where regulatory floodplains are defined, hydraulic structures will be designed to accommodate a 100-year (1%-annual-chance) flood. Energy-dissipation measures will be included in the design as applicable.*
- Stream alteration permits will be obtained for all crossings as required by the Utah Division of Water Rights.*
- Floodplain development permits will be obtained for all locations where the proposed roadway embankment or structural elements would encroach on a regulatory floodplain, and structures will be designed to meet the more stringent of FEMA requirements or local floodplain ordinances.*
- Summit County and/or its final design engineer will obtain flood-control permits from the applicable Floodplains Administrator (Summit County and/or Park City) for the Tributary to Willow Draw, Spring Creek, Willow Draw, Red Pine Creek, Thaynes Canyon Creek, McLeod Creek, Silver Creek, and Empire Canyon Creek.*

- *Roadway elevations will be a minimum of 2 feet above adjacent floodplain elevations, where those elevations are defined, so that flooding will not interfere with a transportation facility needed for emergency vehicles or evacuation.*
- *Walls will be designed and constructed to minimize longitudinal floodplain impacts.*

For more information, see the Floodplains Technical Report in Attachment B.11.

12. Water Resources and Water Quality

Are there any surface or ground water resources present, including an EPA-designated sole source aquifer (SSA), near the proposed project that would be impacted? Explain.

NO

YES

Is there an increase in impervious surface (e.g., roofs, driveways, streets, parking lots, etc.) or restored pervious surface greater than one acre? If YES, a NPDES/storm water permit may be needed and must be acquired prior to construction. Explain.

NO

YES

Effects on Surface Waters

The Project would require fill to be discharged to several surface waters due to the additional pavement that is proposed for the dedicated BRT lanes. The surface waters would function as they currently do, and the Project would not significantly alter the existing flow patterns of these surface waters. As a part of the Project, Summit County will acquire the appropriate Clean Water Act Section 404 permits and/or stream alteration permits. These would be Nationwide Permits which have Clean Water Act Section 401 water quality certifications.

Effects on Stormwater

The Project would add about 16.0 acres of impervious area that would contribute additional highway runoff to the surface water bodies. Appropriate permanent best management practices (BMPs) would be implemented in accordance with UDOT's Stormwater Quality Design Manual (2021) and UDOT's municipal separate storm sewer system (MS4) permit. These BMPs are designed to reduce stormwater quantity (through infiltration or evaporation) as well as reduce stormwater pollutant concentrations to mitigate the effects of increased stormwater runoff to surface water bodies. With the implementation of BMPs for the new impervious area, the project team does not anticipate any effects on surface water quality from stormwater.

Summit County will implement appropriate stormwater management practices during the Project construction phase to mitigate stormwater effects from the Project.

Effects on Water Right Points of Diversion

Of the 27 active water right points of diversion in the evaluation area, 22 of them are within the project design footprint and would be directly impacted by the Project. These water right points of diversion provide water for several different purposes including municipal, irrigation, and agricultural uses. Summit County will coordinate with the owners of these active water right points of diversion during the final design of the Project and will determine feasible options for relocating the points of diversion if their beneficial functions would be impacted by the Project.

Effects on Drinking Water Source Protection Zones

Of the 32 total groundwater source protection zones representing 12 individual wells in and near the water resources evaluation area, the project team anticipates that the impacts to the groundwater source protection zones would be minimal. The one Zone 1 source protection zone in the evaluation area is outside the project design footprint. During final design, Summit County will coordinate with the Summit Water Distribution Company, which is responsible for this zone, and will take special care to not place any project elements within 100 feet of the wellhead associated with this zone.

The remaining 31 source protection zones are categorized as Zone 2, Zone 3, and Zone 4, for which transportation land uses are typically allowed. In addition, the Project consists of constructing additional

impervious area for the dedicated BRT lanes adjacent to the existing impervious area that is currently located within the same groundwater source protection Zones 2 through 4. During final design, Summit County will work with the Mountain Regional Water Special Service District, Park City Water System, and the Summit Water Distribution Company to mitigate any impacts to water distribution infrastructure that the Project could cause.

For the surface water source protection Zones 2 and 4, the project team anticipates that impacts from the Project would be minimal. S.R. 224 in its existing condition is within the same surface water source protection zones as the proposed project. Summit County will coordinate with the Coalville City Water System and the Weber Basin Water Conservancy District during final design to mitigate any impacts to these surface water source protection zones that could be caused by the Project.

Mitigation Measures

Summit County and/or its construction contractor will implement mitigation measures during final design and/or construction of the Project to reduce impacts to water resources and water quality and to ensure that the Project complies with all applicable regulations, including the following.

- *Summit County or its final design consultant will follow UDOT's Stormwater Quality Design Manual (2021) since S.R. 224 is a UDOT-owned and -maintained facility and the Project falls within UDOT's MS4 permit.*
- *Summit County or its construction contractor will prepare a stormwater pollution prevention plan (SWPPP) and obtain a Utah Pollutant Discharge Elimination System (UPDES) permit for construction and will monitor restoration efforts for revegetation success.*
- *Summit County will coordinate with UDOT to visually inspect and maintain water quality BMPs to check that they are functioning properly.*
 - *During construction, inspectors for the Project will certify that the BMPs were installed according to contract documents and UDOT standards.*
 - *After construction, UDOT will document and maintain records or inspections, any deficiencies identified during inspections, and the repairs performed on the BMPs.*

For more information, see the Water Resources and Water Quality Technical Report in Attachment B.12.

13. Wetlands and Waters of the U.S.

Are there any wetlands or waters of the U.S. on or adjacent to the proposed project area that would be temporarily or permanently impacted? Explain.

NO

YES

If YES, is a permit from the US Army Corps of Engineers required? Explain.

NO

YES

Effects on Aquatic Resources

A total of 0.261 acre of aquatic resources could be impacted by the Project. These resources consist of 0.116 acre of palustrine emergent wetlands, 0.066 acre (358 linear feet) of perennial stream, and 0.079 acre (1,520 linear feet) of ditches.

Given the current expected impacts to aquatic resources, Summit County anticipates submitting a preconstruction notification to authorize the Project under U.S. Army Corps of Engineers (USACE) Nationwide Permit 14, which is applicable for linear transportation projects in nontidal waters with less than 0.5 acre of impact. USACE considers crossings at separate and distant locations as single and complete projects for the purpose of Nationwide Permit authorization. Expected impact areas are located in several different waterbody crossings, so USACE would issue separate Nationwide Permit authorizations for crossings that USACE determines to be separate and distant.

In addition, Section 73-3-29 of the Utah Code requires any person, governmental agency, or other organization wishing to alter the bed or banks of a natural stream to obtain a stream alteration permit from the State Engineer before beginning work.

Mitigation Measures

The project design avoids or minimizes impacts to aquatic resources whenever possible while still allowing the proposed transit corridor to meet the purpose of and need for the Project. Impacts to aquatic resources will be further minimized during final design, and implementing water quality BMPs during construction will reduce indirect impacts to aquatic resources. Any temporary construction impacts will be restored. Compensatory mitigation at a minimum 1-for-1 ratio will be required for any Nationwide Permit authorization that exceeds either 0.1 acre of permanent wetland loss or 0.03 acre of permanent stream bed loss. If compensatory mitigation is required, Summit County anticipates developing on-site mitigation plans to rehabilitate or enhance adjacent aquatic resources.

Water quality BMPs will be implemented during construction to reduce short-term impacts to aquatic resources. BMPs to reduce sediment will also be implemented during construction, and any long-term impacts to aquatic resources from increased sediment and reduced water quality as a result of the increased amount of impervious surface would be minor.

For more information, see the Aquatic Resources Delineation Report in Attachment B.13.

14. Threatened and/or Endangered Species

Are there any listed threatened and/or endangered species (plant or animal) or critical habitat present on or near the proposed project area that would be impacted? How was this determined? If yes, Section 7 of the Endangered Species Act may apply. Explain.

NO

YES

*Federally listed species could occur in the biological resources evaluation area. These include several plant species including Ute ladies'-tresses (*Spiranthes diluvialis*); one wildlife species, Canada lynx (*Lynx canadensis*); one bird species, yellow-billed cuckoo (*Coccyzus americanus*); and one insect species, monarch butterfly (*Danaus plexippus*). However, the evaluation area does not include designated or proposed critical habitat for any of these species, and there was no potentially suitable habitat for Ute ladies'-tresses, Canada lynx, or yellow-billed cuckoo in the evaluation area.*

Potentially suitable habitat could exist in the biological resources evaluation area for monarch butterflies where milkweed is present. Milkweed is an essential feature of quality monarch butterfly habitat. Although no milkweed plants were observed during the field survey, it could occur in the evaluation area. If possible, milkweed plants should be avoided if they are identified prior to the proposed work.

For more information, see the Biological Resources Technical Report in Attachment B.15.

15. Natural and Biological Resources

Are there any natural areas, biological resources (fish, birds, wildlife and habitat) or sensitive areas present on or near the proposed project area that would be impacted? If the proposed project has the potential to impact wildlife or waterfowl refuges, a Section 4(f) evaluation may be required. Explain.

NO

YES

If YES, does Section 4(f) apply? Explain.

NO

YES – Provide Section 4(f) Evaluation

Effects on Vegetation

The clearing, excavating, and grading associated with the Project would disturb some vegetation. The areas that would be converted to transportation use are primarily disturbed road shoulders that have already been degraded and provide little habitat value to wildlife.

Mitigation Measures for Effects on Vegetation. *Construction equipment could disturb soils and create favorable conditions for noxious weeds to become established. Noxious weeds that are present in the disturbed areas of the biological resources evaluation area could spread into areas affected by road construction. To prevent further, permanent effects from vegetation disturbance, the following mitigation measures will be implemented:*

- *All fill materials brought onto the construction site will be required to be clean of any chemical contamination per UDOT’s General Standard Specifications, Section 02056, Embankment, Borrow, and Backfill. Topsoil for landscaping must also be free of weed seeds per UDOT’s General Standard Specifications, Section 02912, Topsoil.*
- *Compacted soils will be ripped, stabilized, and reseeded with native seed mixes.*
- *The contractor will be required to follow noxious weed mitigation and control measures identified in the most recent version of UDOT Special Provision Section 02924S, Invasive Weed Control.*
- *Disturbed areas will be reseeded with native plants, and seedlings and invasive species will then be monitored until the vegetation has re-established. This measure will mitigate direct-disturbance impacts and reduce the potential for weed invasions.*

Effects on Species Listed under Conservation Agreements

Potentially suitable habitat exists in the evaluation area for Columbia spotted frog (Rana luteiventris). The Project would disturb and fill about 0.26 acre of aquatic resources consisting of ditches, perennial stream segments, and wetlands adjacent to the road shoulder, thereby eliminating these areas as potentially suitable habitat for Columbia spotted frogs. However, these aquatic sites are adjacent to the road shoulder, and they are continually disturbed by traffic noise and highway debris. For these reasons, these aquatic sites would be considered low-quality habitat, the loss of which is not likely to reduce the viability of Columbia spotted frogs if they are present.

Effects on Migratory Birds

Impacts to migratory birds would include a minor loss of disturbed roadside habitat. Impacts to migratory birds and would be minor since the area around S.R. 224 in the evaluation area is already highly developed.

Mitigation Measures for Effects on Migratory Birds. *To avoid impacts to migratory birds, trees and shrubs should be removed during the non-nesting season (about August 15 to April 1). If this is not possible, preconstruction nesting surveys of the area that would be disturbed will be performed by a qualified biologist no more than 10 days before ground-disturbing activities to determine whether active bird nests are present. If active nests are found, the construction contractor will coordinate with the UDOT Natural*

Resources Manager/Biologist to avoid impacts to migratory birds.

Effects on Big-game Species

Based on data from 2008 to 2017, the segment of S.R. 224 from Kimball Junction to S.R. 248 was rated the fifth highest in Utah's top 25 animal-vehicle crash hotspots on highways, averaging 2.97 crashes per mile per year. In addition, the Utah Wildlife-Vehicle Collision Reporter documents 37 wildlife-vehicle collisions in the biological resources evaluation area between 2019 and 2021. This includes 33 collisions with mule deer, 3 collisions with elk, and 1 collision with a badger. In response to these collisions, UDOT reduced the speed limit to 45 mph for this 2-mile stretch of S.R. 224. Data indicate that lower speeds have contributed to a reduction the number of vehicle-wildlife collisions. However, because the Project would widen the S.R. 224 roadway, the number of wildlife-vehicle collisions could increase.

Mitigation Measures for Effects on Big-game Species. *Through a separate ongoing UDOT study, the partners are taking a holistic view of wildlife-vehicle collisions along S.R. 224. The partners are currently analyzing the need for and effectiveness of installing additional such features at key locations along S.R. 224, including the segment in which the dedicated transit lanes would be constructed. Some potential mitigation measures being analyzed as part of the UDOT study include a consistent speed of 45 mph on S.R. 224, improved signage (consistent with the guidelines in the Manual on Uniform Traffic Control Devices for Streets and Highways) in the UDOT right-of-way, and the incorporation of additional wildlife warning signs installed outside the roadway clear zone. These warning signs would show silhouettes of the wildlife species that live in the area.*

Effects on Swaner Preserve and EcoCenter

All project components near the Swaner Preserve and EcoCenter would be within existing right-of-way and would not affect the preserve.

For more information, see the Biological Resources Evaluation Report in Attachment B.15.

16. Traffic and Parking

Does the proposed project have the potential to permanently impact traffic and/or parking (on and off street) in the project area? Explain.

NO

YES

The Project would enhance transportation options and increase overall mobility in the S.R. 224 corridor. To achieve higher operating speeds and increased reliability, the Project would include installing dedicated transit lanes in 70% of the project extent. By separating buses from other traffic all day over a substantial length of S.R. 224, the Project would provide frequent, fast service to a forecasted 5,400 daily riders. By improving key intersections along the project extent, person-delay would be reduced by over 4 hours based on 8 buses per hour, vehicle-miles traveled would be reduced by 1,740 miles per day, and reduced delay would improve safety.

Transit Travel Times

According to the travel time analysis conducted for the Project, transit travel time would improve by 5 to 6 minutes in the northbound direction on S.R. 224 with the Project. This is largely a result of the transit-only lanes as well as improvements between the Fresh Market transit stop and the Canyons Transit Hub, where the bus would benefit from dual northbound left-turn lanes that would be constructed as part of the Project at Canyons Resort Drive. For the southbound direction, travel time savings with the Project would range from 1 to 4 minutes. The biggest time savings would occur between the Kimball Junction Transit Center and the Canyons Transit Hub, where the bus would avoid AM congestion and would benefit from improved speed and reliability due to the dedicated transit lanes.

Table 3 summarizes the transit travel time comparison between the existing conditions in 2019 (the existing 10 White express bus service) and the Day of Opening scenario (in 2025) with the Project. Northbound BRT travel times on S.R. 224 are expected to decrease by about 5½ minutes during the PM peak hour. During the AM peak hour, BRT travel times would be slightly longer. This is primarily because the BRT would be served by a protected-only phase for the left turn at Olympic Parkway.

During the AM peak hour, when northbound travel is not the dominant flow direction, there would be slightly more delay for the northbound left turn at Olympic Parkway with dual left turns. Although this would be more than offset by the travel time benefits for the dual northbound left-turn lanes during the PM peak hour, additional signal analysis would be conducted during final design of the Project to further improve the Day of Opening AM northbound travel time. For the southbound direction, BRT travel time savings of up to 1½ minutes are expected.

Table 3. Transit Travel Times for Existing Conditions (2019) and Day of Opening (2025) Scenario

Direction and Segment		Existing (2019)		Day of Opening (2025)	
		AM (min)	PM (min)	AM (min)	PM (min)
Southbound	Kimball Junction Transit Center to Canyons Transit Hub	5:20	5:20	4:20	4:15
	Canyons Transit Hub to Fresh Market Station	7:15	7:20	7:10	7:10
	Fresh Market Station to Old Town Transit Center	3:55	4:05	3:40	3:50
	Kimball Junction Transit Center to Old Town Transit Center	16:30	16:45	15:10	15:15
Northbound	Old Town Transit Center to Fresh Market Station	4:20	4:50	4:25	3:40
	Fresh Market Station to Canyons Transit Hub	6:15	6:55	5:55	5:55
	Canyons Transit Hub to Kimball Junction Transit Center	7:20	12:35	8:20	9:05
	Old Town Transit Center to Kimball Junction Transit Center	17:55	24:20	18:40	18:45

Ridership

Table 4 summarizes ridership estimates for the existing conditions (2019) and six future scenarios with and without the Project (Build and No Build). Ridership for the 2025 and 2050 No Build scenarios is projected to increase by 3% to 5% over the existing ridership. Meanwhile, ridership for the 2025 and 2050 Build scenarios is projected to increase by 5% to 140% over the existing conditions. The strong ridership growth in 2050 reflects the travel time savings the BRT offers over mixed-flow bus service as well as the reliability provided by a dedicated transit lane in the context of the very congested conditions on S.R. 224 expected by 2050.

Table 4. Daily Boardings for Existing, No Build, and Build Scenarios

Parameter	2019	2025			2050		
	Existing	No Build	Build	Build – New Stops	No Build	Build	Build – New Stops
Total boardings	2,250	2,310	2,360	2,460	3,260	5,390	5,340
New trips (over existing)	—	60	110	210	1,010	3,140	3,090
Percent increase from existing	—	3%	5%	9%	5%	140%	137%

As shown above in Table 4, the project team also considered ridership implications of the proposed new stations at Bobsled Boulevard and Thaynes Canyon Drive. In 2025, travel times are projected to increase, but overall ridership would increase by 100 trips over the 2025 Build scenario without the new stops. The new stations in 2050 would receive 190 boardings but would also decrease boardings at adjacent existing stops, resulting in a total decrease of 50 boardings compared to the scenario without the new stops. The project partners will further analyze the inclusion of the proposed new stations at Bobsled Boulevard and Thaynes Canyon Drive during the final design of the Project.

The Project would not impact parking.

For more information, see the Traffic and Transportation Technical Report in Attachment B.16.

17. Utilities

Are there any utilities that could be impacted by the proposed project? Explain.

NO

YES

The Project could affect both publicly owned and operated privately owned and operated utilities along the proposed transit corridor and could require utility treatments at stations. A more-detailed evaluation of potential conflicting utility impacts would be required during the final design phase of the Project to determine potential conflicts in station areas and in areas where additional construction would be necessary to accommodate the bus-only lanes and the Basin Express trail.

Summit County would determine the effects on these utilities and appropriate utility treatments by working with local jurisdictions and third-party utilities during the final design phase of the Project. Utility conflicts are not likely in areas where the BRT vehicles would operate in mixed-flow traffic, since the vehicles would operate on existing roads much like the current route 10 White express bus does currently. However, the construction required to accommodate the stations, intersection improvements, dedicated transit lanes, and realigned Basin Express trail could affect utilities.

Mitigation Measures

Planning and coordination with local utility providers during the final design and construction of the Project would minimize or eliminate utility conflicts and reduce disruptions in service. This planning and coordination includes submitting a set of plans for the Project to the utility providers for their use in preparing their utility relocation plans. This close coordination would enable the project partners to identify any potential conflicts early on and would provide time for the project partners to formulate strategies to overcome them. No additional mitigation is anticipated.

For more information, see the Public Services and Utilities Technical Report in Attachment B.17.

18. Construction Impacts

Will the proposed project result in impacts (e.g., noise, air, water, staging, parking, traffic detours, etc.) during construction? Explain.

NO

YES – Provide mitigation commitments

Constructing the Project would cause temporary construction-related impacts from ground disturbance and the operation of construction equipment. Most construction-related impacts to the public would be associated with travel delays on S.R. 224 itself.

Traffic Impacts

Vehicle traffic could be affected during construction of the Project. Traffic detours and some temporary road closures could change frequently throughout construction. Changes in roadway conditions could include rerouting of traffic onto other roads, temporary closure of lanes or sections, and temporary lane shifts. Detours and road closures would temporarily increase vehicle commute times, fuel use, and air pollutant emissions. In addition, access to some residential, institutional, and commercial properties could be temporarily disrupted, including to businesses in the area of construction. Although the project partners would maintain access to properties to the extent practicable, temporary detours would limit some access or change the route to some businesses.

Mitigation Measures for Traffic Impacts. *A thorough public information program will be implemented to inform the public about construction impacts, including identifying work hours and alternate routes. Construction signs will be used to notify drivers about work activities and changes in traffic patterns.*

Impacts from lights used during nighttime construction will be reduced by aiming construction lights directly at the work area and/or shielding the lights.

The contractor will be required to develop a maintenance-of-traffic plan that defines measures to reduce construction impacts to traffic. A general requirement of this plan will be that, to the extent reasonably practical, safe access to businesses and homes must be maintained and existing roads must be kept open to traffic unless alternate routes are provided.

Access to businesses will be maintained during the construction and post-construction phases of this project. For each phase of the Project, the project partners will coordinate with property owners and businesses to evaluate ways to maintain access while still allowing efficient construction operations. This coordination could entail sharing a temporary access or identifying acceptable timeframes when access is not needed. Adequate signs will be placed in construction areas to direct drivers to businesses.

Utilities Impacts

Although utility service would be maintained throughout most construction activities, utility service could be temporarily disrupted during construction. The affected utilities could include electric, natural gas, water, sewer, telephone, cable, and storm drainage.

Mitigation Measures for Utility Impacts. *Planning and coordination with local utility providers during the final design and construction of the Project will minimize or eliminate utility conflicts and reduce disruptions in service. This planning and coordination includes submitting a set of plans for the Project to the utility providers for their use in preparing their utility relocation plans. This close coordination will enable the project partners to identify any potential conflicts early on and will provide time for the project partners to formulate strategies to overcome them.*

The project specifications will require the contractor to coordinate with the utility providers affected by construction to complete utility agreements before construction, and the construction contractor

will coordinate with all utility providers to minimize utility service interruptions.

Before beginning work, the contractor is required to contact Blue Stakes to identify the locations of all utilities. The contractor will be required to use care when excavating to avoid unplanned utility disruptions. If utilities are unintentionally disrupted, the project partners will work with the contractor and the utility companies to restore service as quickly as possible.

Right-of-way Acquisition Impacts

The project partners might need to obtain temporary easements for some properties in order to construct the Project. These properties are included in the right-of-way analysis in this Categorical Exclusion, but the final locations of easements would be determined during final design of the Project. Easements could be required for properties that are outside the highway right-of-way that would be affected by the cuts or fills required during roadway construction, would require utilities to be relocated, or would need to have the properties' access modified to fit within the proposed design.

The project partners would use these properties and would provide compensation to the landowner for the use. For some construction and utility easements, the property would be fully returned to the owner when the use of the property is no longer required, typically when construction is complete or the utility is buried. These properties might be temporarily affected, but no long-term impacts are expected.

For some utilities such as power poles, permanent easements might be required. The locations of these easements would be determined during the final design of the Project in coordination with the utility companies. For permanent easements, the appropriate environmental documentation would be prepared for any potential impacts.

Additionally, the contractor would establish staging areas for equipment during construction and would obtain fill material for improvements. Because a contractor has not yet been selected, the exact locations of staging areas and sources of fill material are not known.

Mitigation Measures for Right-of-way Acquisition Impacts. *No mitigation is required.*

Air Quality Impacts

Although no long-term air quality impacts would occur as a result of the Project, short-term, construction-related air quality impacts are likely. Air quality impacts during construction would be limited to short-term increases in fugitive dust, particulates, and local pollutant emissions from construction equipment in the area of construction. Because construction would be local and short-term, any impacts to individual air quality receptors would also be short-term. The most common air pollutant created by construction would be PM₁₀ (particulate matter 10 microns in diameter or smaller). Construction activity could also generate a temporary increase in emissions of mobile-source air toxics from construction-related emissions during the construction period.

To reduce construction-related air quality pollutants, an air quality approval order is required to build, own, or operate a facility that pollutes the air, including S.R. 224 with the proposed improvements. This permit would be obtained by the contractor before construction.

Mitigation Measures for Air Quality Impacts. *The contractor will be required to follow the appropriate BMPs included in the project partners' plans and specifications for construction. These BMPs include items such as fugitive-dust control and street sweeping.*

Noise and Vibration Impacts

Though noise from constructing the Project would be temporary, it could be a nuisance at nearby locations. Construction activities would be carried out in compliance with all applicable local noise regulations.

Constructing the Project could cause some degree of ground vibration. Buildings founded on the soil

near the construction site could respond to these vibrations, though, given the nature of the Project, the effect would likely be imperceptible or only moderately noticeable for a short time.

Mitigation Measures for Noise and Vibration Impacts. *The following noise- and vibration-control measures would be applied as needed:*

- *Avoid nighttime construction in residential neighborhoods.*
- *Use quieter equipment with enclosed engines or high-performance mufflers.*
- *Locate stationary construction equipment as far as possible from noise-sensitive sites.*
- *Operate earth-moving equipment as far away from sensitive sites as possible.*
- *Avoid impact pile-driving if possible.*
- *Avoid vibratory rollers and packers near sensitive areas.*

Water Quality Impacts

Excavating, grading, and other construction activities could reduce water quality during construction. These impacts could continue until the proposed BRT facilities are completed, permanent protective measures are installed, and the site is stabilized.

Mitigation Measures for Water Quality Impacts. *The Project would disturb more than 1 acre of ground surface; therefore, a UPDES General Permit for Discharges from Construction Activities (UTRC00000) and an SWPPP are required. The SWPPP will be provided to the construction contractor prior to the notice to proceed. The SWPPP will identify temporary and long-term stormwater BMPs to reduce impacts to receiving waters from construction activities including site grading, materials handling and storage, fueling, and equipment maintenance. The construction contractor will be responsible for finalizing the SWPPP before beginning earth-disturbing activities as well as for implementing and maintaining the project SWPPP throughout project construction.*

Wetlands and Wildlife Impacts

During construction, some erosion might occur outside the specific roadway construction zone. Impacts to aquatic species from construction could include increased sediment and reduced water quality, though the long-term impacts to aquatic species from increased sediment and reduced water quality as a result of the increased amount of impervious surface should be minor with the implementation of BMPs to reduce sediment.

Construction activities could disrupt the feeding, nesting, and reproductive activities of wildlife in or near the right-of-way because of higher noise levels, construction equipment activity, and lights. These temporary construction activities are of particular concern during nesting periods for migratory birds near the right-of-way because the activities could disrupt nesting or cause birds to flee the nest.

Mitigation Measures for Wetlands and Wildlife Impacts. *BMPs such as silt fences and other erosion-control and sediment-control features will be used in areas adjacent to wetlands. To mitigate any potential impacts to migratory birds, any vegetation removal to occur between June 15 and August 15 will require a survey by a qualified biologist to ensure that any removal would not impact nesting birds.*

Invasive Species Impacts

Construction operations would remove the existing hard surfaces and established vegetation, which would expose the underlying soils to the risk of being infiltrated by invasive weeds. Materials and equipment delivered to the job site could introduce invasive weeds into the area if seeds are present in imported soil or on equipment that is not properly cleaned.

Mitigation Measures for Invasive Species Impacts. *To mitigate the possible introduction of invasive weeds due to construction activities, the invasive-weed BMPs in UDOT's Supplemental Specification*

02924S, Invasive Weed Contractor Control, will be implemented, monitored, and included in the plans and specifications for the Project to require that earth-moving construction equipment is to be properly cleaned before mobilizing onto the project site and to treat any noxious weeds within the project limits and schedule.

The construction contractor will comply with UDOT's invasive-weed BMP requirements by properly cleaning all earth-moving construction equipment before mobilizing onto the project site, treating any existing noxious weeds before earth-disturbing activities, and avoiding unnecessary earth disturbances.

19. Public Outreach and Agency Coordination

Was any public outreach and/or agency coordination conducted? Explain.

NO

YES

As they developed the Project and analyzed its effects, Summit County and its partners conducted extensive public outreach starting in 2017. Additional outreach regarding expanded transit in general was also conducted by Summit County in 2018–2020 in support of creating High Valley Transit. The public outreach process was structured and implemented to ensure that all relevant factors were considered, including the affected community’s concerns and issues related to the Project’s purpose and need, alignment and runningway, and engineering solutions, social impacts, environmental impacts, economic effects, financing, and other items of concern to the community.

Several methods for engagement were used to provide multiple avenues for receiving public guidance. Specific activities included meetings and workshops with project partner representatives, workshops with project partner elected officials, meetings with key stakeholder groups, city and council meeting updates, two online public meetings, and an open house–style public meeting. A project website was actively maintained to disseminate news, information, and project materials to the wider public.

Previous Surveys and Studies

Summit County conducted a compensation survey in October 2021 and found that that the cost of living in Summit County is about 38% higher than the average cost of living in other counties in Utah and just over 23% higher than the average cost of living in Salt Lake County. Due to this jobs/housing imbalance, many seasonal workers commute to their jobs from outside Park City proper.

According to the Summit County Transit Study (2021), Summit County has a large number of service, retail, and hospitality jobs, and many employees do not live close to their place of employment, often due to the lack of affordable housing. The study notes that many employees live in communities such as Kamas or Heber City, where public transit is infrequent or unavailable, compelling them to commute using a private vehicle. As a result, these people are often forced to spend a significant portion of their income on transportation.

Park City Transit conducted an onboard survey (Park City Transit 2019) to determine how riders currently use the transit system and to gauge the general characteristics of riders. The report found that Summit County residents and commuters ride the system the most, have low automobile access, and live in households with less household income. Over one-third of survey respondents cited the need for more-frequent bus service. When people live far from their jobs, reliable transportation is imperative to offset the social strains of commuting (such as increased childcare costs). Rising housing costs coupled with a lack of employee housing support the need for faster, more-reliable transit on S.R. 224.

Studies, surveys, and outreach conducted by Park City Transit (2019) and Summit County (2021) show that Summit County residents and commuters who ride the transit system the most typically have low automobile access and live in households with less household income. When people live far from their jobs, reliable transportation is imperative to offset the social strains of commuting (such as increased childcare costs). Rising housing costs coupled with a lack of employee housing are inextricably linked to the need for faster, more-reliable transit on S.R. 224 to get workers to their jobs in the area’s resort-based economy.

Public Outreach during the Categorical Exclusion Phase

During the Categorical Exclusion phase of the Project, Summit County and the project partners continued to engage the community, elected officials, and other agencies in the Project’s development. Public outreach activities conducted during the Categorical Exclusion phase included a project website (<https://sr224brt.com>), a project update newsletter to the community, and coordination with agencies with jurisdiction over potentially affected resources. In addition, the project team held technical advisory

meetings with key staff from Summit County, Park City, and UDOT; held elected official briefings; and held an informational public open house on December 12, 2022.

20. Safety and Security

Are any measures required for the safe and secure operation of the proposed project after its construction? Explain.

NO

YES

The design configuration of the Project would ensure the safety and prioritization of all road users. No negative impacts to safety and security are anticipated from the Project. The Project would provide several additional improvements that would increase safety in the proposed transit corridor. Stations would continue to be curbside stations (similar to the existing stations on the corridor) located adjacent to the curb of the street and integrated into the surrounding sidewalk. An advantage of curbside stations is that they eliminate the need for some pedestrian street crossings. At BRT stations, enhanced lighting, ramps that comply with the Americans with Disabilities Act (ADA), glass enclosures, and other features would be provided.

By providing well-lit stations, the Project could create a safer environment in those areas they serve. A higher frequency of bus service (every 10 to 15 minutes) and improved reliability would significantly decrease the amount of time spent waiting for the bus, which could bring a sense of safety and security to many riders. New electric buses combined with a reduction in vehicle-miles traveled would contribute to less air pollution that contributes to asthma and other respiratory illnesses.

The dedicated transit lanes would be separated from mixed-flow traffic and demarcated by use of a different material (such as asphalt for the roadway and concrete for the dedicated busway), pavement striping, rumble strips, or any combination of these elements. Other vehicles would be restricted from using the bus-only lanes with signs and/or pavement markings. Emergency vehicles would be able to use the dedicated transit lanes, which would improve their response times and allow emergency responders to move more freely in congested conditions. Dedicated transit lanes are a proven strategy for reducing conflicts among a road's various users.

Finally, to be safe and effective, the dedicated transit lanes must be enforced. Without active enforcement, interference and improper use by automobiles and trucks can significantly reduce bus performance and safety for all users. Summit County would work with local law enforcement to ensure that the dedicated transit lanes are properly enforced.

Transit riders are usually concerned about the safety of vehicles left in parking lots and their personal safety while using a transit system. Transit users in the evaluation area for safety and security currently use existing park-and-ride lots at the Kimball Junction and Old Town Transit Centers. These parking areas already exist and are patrolled by Park City police.

Snow would be stored primarily in the buffer area between the roadway shoulder and the Basin Express trail, though snow could be stored in the shoulder as well as in the park strip.

21. State and Local Permits, Policies and Ordinances

Does the proposed project require compliance with any applicable state and local permits, policies and ordinances? Explain.

NO

YES

The Project would require the following permits:

- *UPDES Construction General Permit (CGP) – Construction of the Project would disturb more than 1 acre of ground surface. Summit County (or its construction contractor) would apply for coverage under Utah’s CGP (UTRC00000). In compliance with this permit, an SWPPP would be developed for the construction phase of the Project.*
- *A USACE Nationwide Permit 14 would be required for expected wetland impacts, unless USACE determines that the wetlands are not jurisdictional waters of the United States.*
- *Summit County (or its construction contractor) would need to obtain coverage for construction dewatering under Utah’s General Permit for Construction Dewatering or Hydrostatic Testing (UTG070000) or a Ground Water Discharge Permit pursuant to state groundwater protection rules (Utah Administrative Code R317 -6, Ground Water Quality Protection). The results of the soil and groundwater investigation would be used to evaluate feasible soil disposal and groundwater management strategies, if needed. The soil and groundwater management plan would present these strategies, support the previously mentioned permit application(s), and address other applicable laws and regulations.*
- *Summit County (or its construction contractor) would submit a fugitive dust control plan to the Utah Division of Air Quality.*
- *Summit County (or its construction contractor) would follow local noise ordinances.*

WORKSHEET COMPLETED BY (RECIPIENT NAME AND TITLE):

DATE SUBMITTED:

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Note: CE Worksheet must be signed by the Recipient of Funds