

Downtown Truckee Railroad Pedestrian/Bicycle Crossing Feasibility Study (C2106)

Final Feasibility Report

Date: November 2025

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Table of Contents

Acronyms and Abbreviations..... 3

Executive Summary 4

Location Alternatives..... 5

Crossing Type Alternatives..... 6

Preliminary Cost Estimates..... 7

Alternatives Evaluation 8

Acronyms and Abbreviations

| | |
|-----------------|---|
| ADA | Americans with Disabilities Act |
| CA | California State |
| Caltrans | California Department of Transportation |
| CPUC | California Public Utilities Commission |
| ROM | Rough Order of Magnitude |
| TDMA | Truckee Downtown Merchants Association |
| UP | Union Pacific Railroad |

Executive Summary

Since its incorporation in 1993, the Town has been focused on promoting pedestrian-friendly design and infrastructure improvements to strengthen walkability and bikeability and enhance the Downtown experience. As early as the 1997 Downtown Specific Plan and continuing through more recent planning efforts including the General Plan 2040, Downtown Truckee Plan, and 2015 Trails and Bikeways Master Plan, the Town of Truckee has set forth policies and strategies that promote sustainable and connected community development.

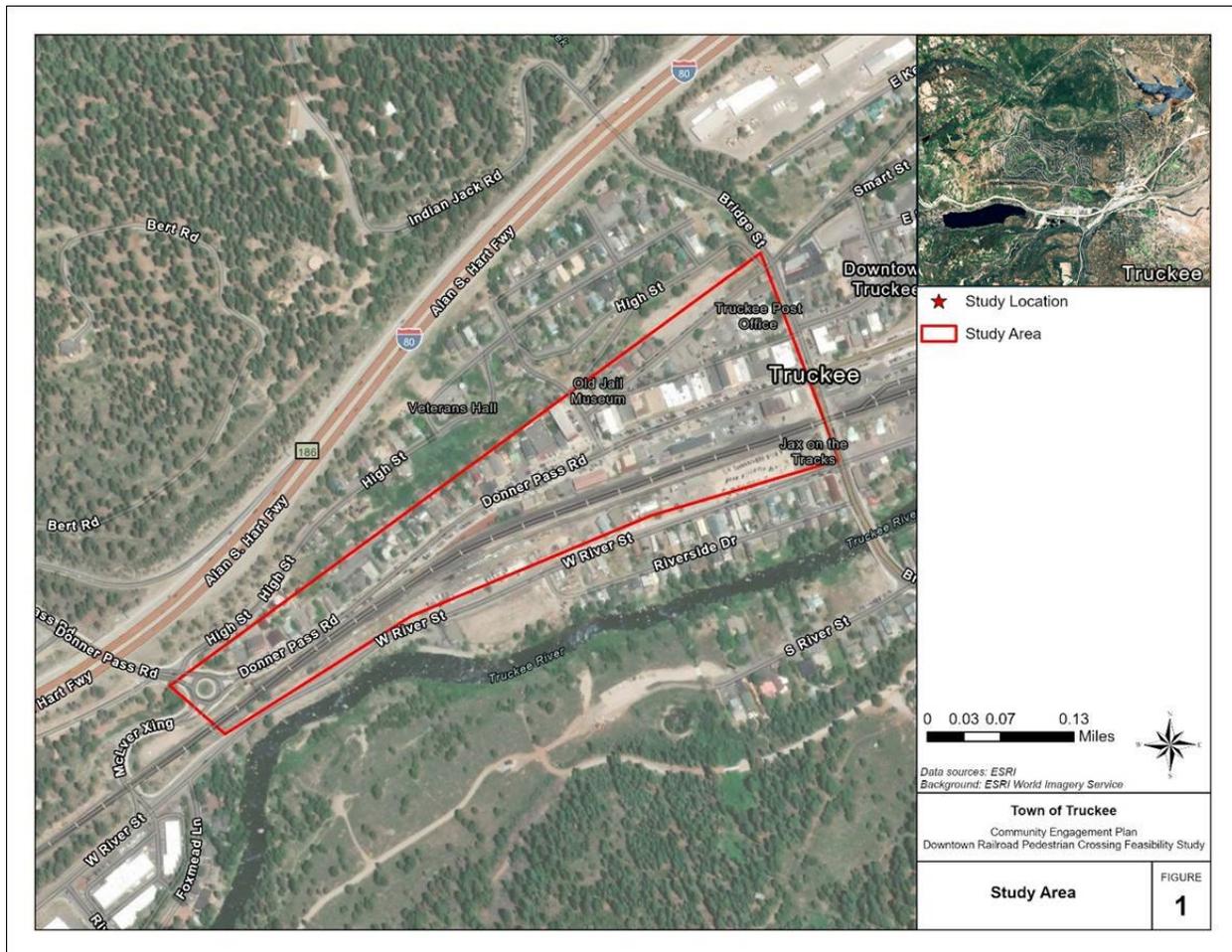
In January 2024, the Town entered into a funding agreement with Caltrans for a Sustainable Communities Transportation Planning Grant to complete the Downtown Railroad Pedestrian Crossing Feasibility Study. This study is intended to evaluate the potential for a new pedestrian and bicycle crossing over the Union Pacific Railroad (UP) tracks that bisect the town. The evaluation considered multiple railroad crossing alternatives, possible locations, crossing types, and design features to determine the most feasible and advantageous solutions for enhancing pedestrian and bicycle connectivity and safety in Downtown Truckee.

Project Location

As depicted in **Figure 1** (see the corresponding Figure in Chapter 1.1 of this report for reference), the study focuses on alternatives for a potential mid-block railroad crossing in central Downtown Truckee, in the study area bounded by Donner Pass Road on the north and West River Street on the south, and between the existing McIver Crossing roundabout at Donner Pass Road and West River Street on the west and Bridge Street on the east.

The existing pedestrian crossing at Bridge Street is part of the at-grade crossing with an approximate Average Daily Traffic of 11,710, located east of the study area. To the west, McIver Crossing serves as a railroad undercrossing connecting Donner Pass Road and West River Street. These two crossings are located roughly 1/2 mile apart, requiring pedestrians and cyclists to travel up to one mile (1/2 mile each way) to access businesses on either side of the tracks.

Figure 1 – Study Location Map



Alternatives Development

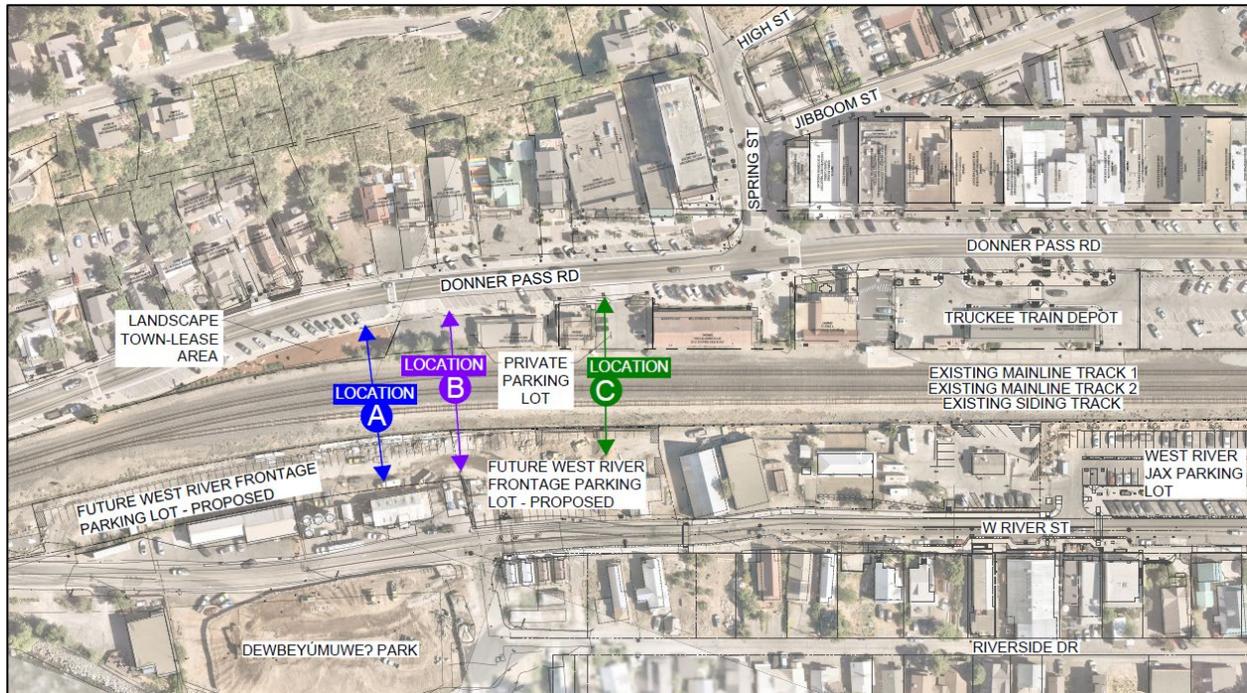
The development of preliminary alternatives for a potential new pedestrian and bicycle crossing followed a structured, multi-faceted approach to ensure that a comprehensive and reasonable range of feasible options were considered and evaluated against key criteria, including safety, accessibility, cost, and integration with existing infrastructure. The approach focused on three primary aspects: potential crossing locations, structural type, and accessibility options (ramps and stairs versus elevators and stairs).

Location Alternatives

As illustrated in **Figure 5** below (see the corresponding Figure in Chapter 5.1 of this report for reference), out of six (6) identified railroad crossing location alternatives, three (3) location alternatives (A, B, and C) were considered the most viable for a more detailed analysis. This included the three westernmost potential crossing locations which provide a more central midpoint location for a new crossing, between Bridge Street and McIver Roundabout. This mid-point within the

corridor/study area reduces the walking distance between available crossing locations from half (1/2) mile to a quarter (1/4) mile, at most.

Figure 5 - Potential Crossing Locations



Crossing Type Alternatives

As shown in **Table 3** below (see the corresponding Table in Chapter 5.2 of this report for reference), three (3) crossing type alternatives were evaluated as part of the study: an at-grade crossing; an overhead crossing, and an underpass crossing. The high-level Pros and Cons associated with each of these options was outlined and included in the evaluation. In addition, an initial constructability analysis was developed to outline an approach to how the structure type alternatives could be built without impacting the active use of the mainline tracks.

Table 3 - Crossing Alternatives Pros & Cons

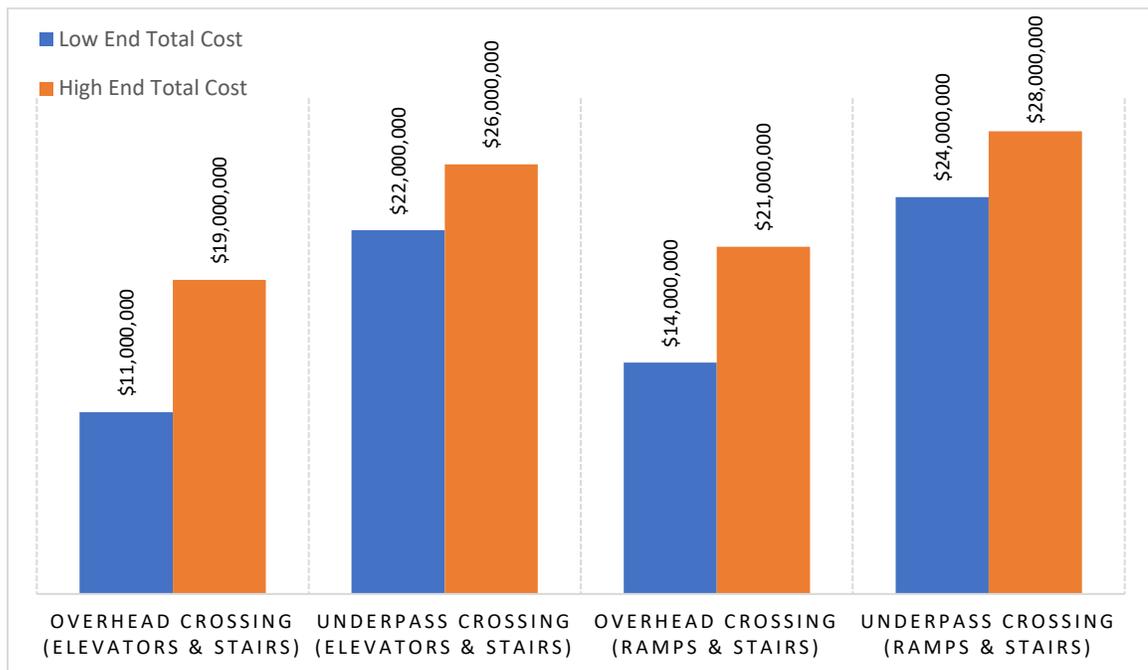
| Crossing Type | Pros | Cons |
|--------------------------|---|---|
| At-Grade Crossing | Due to known safety concerns and the risk of accidents and fatalities on at-grade crossings, UP’s current Public Projects Manual, Section 6 Sidewalks and Pathways, Subsection 6.2 notes that new at-grade pathway crossings are not allowed . As a result, an At-Grade Structure type for a new pedestrian/bicycle was eliminated from consideration and not further developed. | |
| Overhead Crossing | <ul style="list-style-type: none"> • Complete grade separation between trains and pedestrian/bicycle use. | <ul style="list-style-type: none"> • High construction cost. • Long ramps or elevators required to meet Americans with Disabilities Act (ADA) |

| Crossing Type | Pros | Cons |
|------------------|--|--|
| | <ul style="list-style-type: none"> • Improved safety, reduces risk of trespassing on UP property. • No impact on train operations. • Potential landmark or aesthetic feature. • Moderate Permitting Challenges. | compliance. <ul style="list-style-type: none"> • Visual and aesthetic impacts. • Potential for weather exposure. • Traditional construction, but requiring phasing to avoid impacts to train operations. |
| Underpass | <ul style="list-style-type: none"> • Complete grade separation between trains and pedestrian/bicycle use. • Improved safety, reduces risk of trespassing on UP property. • Minimal visual impact. • All-weather protection. • Can integrate with stormwater systems or adjacent infrastructure. | <ul style="list-style-type: none"> • Higher construction cost than an overhead crossing. • Complex construction. • Requires deep excavation and shoring. • Drainage and flooding concerns. • Perception of safety/security issues. • High permitting challenges. • Requires lighting, ventilation, and security features. • UP generally opposes use of underpass structures on its property except in certain situations where overhead crossing alternatives are geometrically infeasible. |

Preliminary Cost Estimates

As shown in **Figure 13** below (see the corresponding Figure in Chapter 8.1.2 of this report for reference), as part of the study, the Town developed a preliminary Rough Order of Magnitude (ROM) cost estimate for the potential pedestrian railroad crossing alternatives analyzed in this feasibility study, including both underpass and overhead crossing options. The purpose of this estimate is to provide a high-level understanding of potential construction costs to support comparison of alternatives and to guide decision making during the feasibility study stage. It should be noted that a cost estimate was not developed for the at-grade crossing alternative since this alternative was eliminated and was not further developed.

Figure 13 - Town of Truckee Crossing Alternatives ROM Construction Cost Estimates



Community Engagement

Upon initiation of the study, the Town prepared and extended a community-wide invitation to the general public, applicable stakeholder agencies, organizations, and interest groups to join a Community Review Committee (CRC) to provide input on the study. In addition to the CRC, a Technical Advisory Committee (TAC) was established, composed of Town staff representing various departments. A three-part series of meetings was hosted throughout the study for the two established stakeholder groups.

The TAC was intended to provide technical insight on preliminary design concepts, screening criteria, and evaluation methods; promote alignment with Town-wide goals; and offer input on feasibility, design, and operational considerations. The CRC was formed as a community stakeholder group comprised of residents and stakeholders from the Town. The CRC was intended to bring local perspectives, providing feedback on concepts, and weighing in on potential community impacts. In addition to these committee meetings, the Town also attended Truckee Downtown Merchants Association (TDMA) meetings to present the project and gather feedback from the local business community.

Alternatives Evaluation

The evaluation of crossing alternatives was guided by several key criteria to ensure the selected option meets the needs of the community while respecting the unique character of Downtown Truckee. Because this study focused on the overall feasibility of a new pedestrian and bicycle

crossing, the evaluation method focused on broad, high-level considerations such as acceptability by UP and the California Public Utilities Commission (CPUC), safety, accessibility, constructability, cost, and consistency with ongoing Truckee community plans. At this stage of analysis, detailed criteria, such as precise right-of-way impacts, final design, design specifications, and site-specific potential environmental impacts, cannot be accurately determined but would be considered in future phases.

Potential crossing location alternatives and crossing type alternatives were evaluated against established criteria through the use of matrices and an app-based survey, as well as input gathered during committee meetings. Collectively, this feedback provided valuable insights that informed the refinement and identification of proposed crossing alternatives, and ensured that technical, operational, and community perspectives were fully integrated to support the decision-making process.

As shown in **Table 9** below (see the corresponding Table in Chapter 8 of this report for reference), ultimately, the feedback received demonstrated the complexity of implementing a new crossing, with varying opinions. Beneficial themes such as connectivity, ease of travel, safe and needed crossings, activation of parking areas, and stronger connections between the new DEWBAYUMUWE? Park, the Legacy Trail, and Downtown supported the possibility of a new crossing. Concerns primarily related to overall project feasibility, visual impact, effectiveness, and costs with uncertainty that the benefits may not outweigh the cost.

If the concept of a new crossing were to advance for additional analysis, the below alternatives appear to be considered the more feasible and likely to implement.

Table 9 - Evaluation Criteria Summary of Results

| Criteria | Highest Ranked | Summary of Comments |
|----------------------|--------------------|---|
| Location | Location A | Seen as having fewest impacts on surrounding properties and a balance of accessibility and connectivity benefits. |
| Structure | Overhead Structure | Viewed as providing the best combination of safety, accessibility, and connectivity benefits, despite initial concerns raised about aesthetics and project costs. |
| Accessibility | Elevators | Viewed as providing the most reliable and year-round access for all users, including those with mobility devices and bicyclists. |

- Location: Three locations (A, B, and C) were identified as most feasible, with strong preference for Locations A and B due to connectivity benefits and minimal disruption to adjacent infrastructure.
- Structure Type: An overhead pedestrian bridge with elevators and stairs is preferred, providing enhanced safety, visibility, year-round accessibility, and ADA compliance.

- **Accessibility:** Elevators were strongly preferred over ramps, which would have been excessively long, with greater property impacts, and less compatible with the downtown context.

Stakeholders highlighted additional benefits such as improved accessibility and activation of West River Street, better connections and direct access, new views and scenic vantage points from the overhead crossing structure, improved mobility in Downtown Truckee, support for Town vitality, prevention of potential future fencing that could be initiated by Union Pacific Railroad, and safety as a feature and an opportunity.

Feedback indicated that the most significant concerns associated with the new crossing were its visual appearance and the cost implications of constructing and maintaining the new infrastructure.

Funding

Implementation of a new pedestrian and bicycle crossing will require financial investment. Local municipalities typically fund large infrastructure projects, such as grade separations and pedestrian crossings through competitive applications for federal, state, or regional grants and specialty programs, with some percentage of local matching funds. Therefore, securing funding is a critical next step in advancing a potential new crossing.

A range of state, federal and regional programs were identified as possible sources to fund active transportation, safety improvements, and rail crossing enhancements. These funding sources vary in terms of eligibility, application process, required local match, and evaluation criteria, but include programs such as the California Transportation Commission's- California Active Transportation Program (ATP) and Local Streets and Roads Programs (LSRP), U.S. Department of Transportation Discretionary Grant Programs such as the Consolidated Rail Infrastructure and Safety Improvements (CRISI) and the Better Utilizing Investments to Leverage Development (BUILD) Grant Programs; and the Reconnecting Communities Pilot Program.

Potential Next Phases

This feasibility study provides a strong technical and community-informed foundation for potential next stages, supporting the Town's long-term objectives to enhance multimodal connectivity, public safety, and accessibility in Downtown Truckee.

If determined it is desirable and financially feasible to advance a potential pedestrian and bicycle crossing further, the Town would program future phases of study in the cycle of project development below:

- Feasibility Study (this stage of the project)
- Project Development
- Final Design
- Construction

Given the complexity of a new potential railroad crossing, the Town anticipates that development will occur over an extended timeframe. The specific timeline will depend on the Town's priorities and its decision on whether to advance the project. The timeline includes project delivery steps to secure funding for each project phase, conduct thorough environmental review and public outreach, advance design and engineering, acquire rights-of-way, and gain approvals from stakeholders such as the railroad and utility companies, complete necessary agreements, secure permits, competitively bid the project to contractors, and complete construction. Each of these steps is critical to ensuring the project meets regulatory requirements and is implemented successfully.