

9.4.4 Improves Access to Emergency Services

The Project will improve access to emergency services through the reduction in vehicle miles traveled by emergency services to Helendale. Through the prevention of accidents and the reduction of travel delays for emergency services, the Project will improve access to vital services. The nearest emergency services are located quite far from the community: the nearest hospital is in Victorville, 16 miles to the south, and the County Sheriff's Department (Victor Valley Sheriff's Station) is approximately 21 miles south. Ingress and egress from both locations is currently hampered by train traffic. The Project is vital for improving accessibility for emergency services through the decrease of delays related to the crossing being occupied by passenger and freight rail.

9.4.5 Improved Mobility

The Project will improve the mobility of people and goods. As the Project crossing lies along a bustling freight corridor, the reduction of freight train-related delays will improve the mobility of goods to and from the Ports of Los Angeles and Long Beach. Currently, the Vista Road crossing experiences an average of 70 freight train-related delays per day. These delays affect all system users but will no longer be an issue after Project implementation.

The Project aims to enhance the mobility of various transportation modes, improving daily routes and access to community services, local businesses, and amenities. The southern extension of Vista Road will offer neighboring landowners new paved access driveways, simplifying property access. The grade separated structure over the BNSF rail line will establish a connection to the National Trails Highway. The Project will also enable pedestrians to cross the BNSF rail corridor safely and unobtrusively, providing access to the National Trails Highway and other commercial and residential properties.

The implementation of the Project would result in the avoidance of nearly 700,000 hours in delay incurred by automobiles and their passengers and over 76,000 hours of delay by commercial truck drivers.

9.4.6 Fuel Savings and Reduction in Emissions

The Project will reduce GHG emissions through enhanced traffic flow, leading to a decrease in vehicular emissions. The Project significantly reduces transportation-related air pollution and GHG emissions by decreasing idle emissions at the existing Vista Road at-grade in Helendale when it is occupied by passenger and freight trains. The improved accessibility for motorists will save energy through a decrease in fuel consumption associated with vehicle idling at the crossing.

Beyond the sustainability benefits for motorists, the Project also contributes to a safer, more efficient, and environmentally friendly transportation system. Efficient rail transportation reduces reliance on trucks for freight movement, further benefiting the environment by shifting from road to rail transport. Improved air quality will reduce air-pollutant related diseases in the community, providing a community benefit that allows the local population to live longer and healthier lives.

9.4.7 Improves Access to Communities

The Project will increase access throughout Helendale. Ingress and egress are currently hampered by train traffic. The Project will enable pedestrians and bicyclists to cross the BNSF rail corridor safely, providing access to the National Trails Highway and other commercial and residential properties. This access is vital for the rural community as the highway leads to job centers, as well as recreational and educational opportunities in Barstow to the north and Victorville to the south, both major regional cities offering amenities, medical care, and higher education institutions. The Project will likewise improve mobility of community residents who choose to drive, as there will be a reduction in travel time delays as vehicles will no longer have to stop and wait for train traffic to pass.

9.4.8 Provides Economic Benefit

The Project provides a multifaceted economic benefit to rail passengers, rail operators (both passenger and freight), automobile users and their passengers, commercial truck drivers, and to the broader community. A benefit-cost analysis undertaken to support the Project estimates that the Project's implementation and operation would result in a benefit-cost ratio (BCR) of 1.1:1, showing that the Project is cost effective. A technical memorandum detailing the assumptions, methodology, and findings of the benefit cost analysis has been included in this application package, as has the USDOT compliant BCA model in Excel format. In addition to the quantitative findings reflected in the cost effective BCR, qualitative benefits include decreased healthcare costs due to improved air quality and general improvements in the quality of life due to improved mobility for active transportation users.

9.5 Project Outcomes

The Project will create a grade separation crossing through the extension of Shadow Mountain Road and construction of a bridge over the BNSF rail corridor to connect to Route 66 and will eliminate the existing Vista Road railroad crossing located to the north. The Project will close the existing at-grade highway rail crossing at Vista Road and redirect the flow of traffic south on Jordan Road to the proposed grade separation crossing approximately three-quarters of a mile south of Vista Road. The new grade separated structure over the BNSF rail corridor will connect, via a new road segment carrying Shadow Mountain Road, to National Trails Highway.

It is not expected that the Project's implementation will result in changes to the train numbers, ridership, or train speeds. The speed classification of the section of the Transcon where the Project is located is FRA Class 5 which allows for higher speeds, with a maximum speed of 79 mph for passenger trains and 70 mph for freight trains through the project limits. Trains currently do not slow when approaching the existing at-grade crossing with Vista Road, though they are rarely traveling at or near the maximum allowable Class 5 speeds. An overview of the annual ridership of passenger rail traveling through this corridor of the Transcon, total train numbers, and average travel times, are shown in Table 5.

Table 5: Table 5: Vista Road Crossing Closure and Grade Separation Project - Project Outcome Data

Ridership in the Project Area						
	No Build Scenario			Build Scenario		
Total Annual Ridership*	88,429			88,429		
Annual Intercity Passenger Rail Ridership*	88,429			88,429		
Annual Commuter Passenger Rail Ridership	N/A			N/A		
Train Counts in the Project Area						
	No Build Scenario			Build Scenario		
Total Weekly Trains	504-644			504-644		
Weekly Intercity Passenger Rail Trains	14			14		
Weekly Commuter Rail Trains	N/A			N/A		
Weekly Freight Trains	350-490			350-490		
Operating Speeds in the Length of Track Improvement Area						
	No Build, IPR	Build, IPR	No Build, CR	Build, CR	No Build, Freight	Build, Freight
Average Operating Speed (mph)	75	75	N/A	N/A	65	65
Highest Maximum Authorized Speed (mph)	79	79	N/A	N/A	70	70
Lowest Maximum Authorized Speed (mph)	As needed	As needed	N/A	N/A	As needed	As needed
Average Scheduled Travel Time (Time/Trip)	1.5 min	1.5 min	N/A	N/A	3 min	3 min

* Denotes 2024 ridership on Amtrak's Southwest Chief Service between Victorville and Barstow stations.

Source: Amtrak, BNSF

10. PROJECT IMPLEMENTATION AND MANAGEMENT

10.1 Technical Qualifications and Experience of Key Personnel

The County has an established track record of delivering projects of similar scope and size. The County has extensive experience, both in-house and through consultants, in administering federal aid projects including bridge projects funded through U.S. DOT's Highway Bridge Program and railroad crossing projects including:

- Glen Helen Parkway Grade Separation over the BNSF and UPRR lines, (\$25,685,000 - completed in 2018);
- Garnet Bridge Reconstruction in Mentone (\$6,400,000 - completed in 2022);
- Glen Helen Bridge Project in San Bernardino (\$52,000,000 - in progress); and
- 10 Bridges Project (bridges larger than 20 feet) on National Trails Highway (\$30,000,000 total in progress).

In addition, the County has completed 95% design on its Rock Springs Road bridge over the Mojave River. This \$21,745,000 bridge project is expected to advance to construction in the spring of 2025. The Project team will bring technical expertise, historical accomplishments, and successful project management to ensure the Project is fully and successfully executed within the proposed time frame and budget.

10.2 Project Contracting Arrangements and Contract Oversight

San Bernardino County intends to deliver the Project using a design-bid-build approach for final design and construction. San Bernardino County, the Project applicant, will be responsible for contract oversight, control, and conformance to Federal requirements for Project progress reporting for work completed within the respective right-of-way.

10.3 Change-Order Management

A change order occurs when construction contract changes are needed, requiring an adjustment in the Project's price and schedule. The County has a structured approach for addressing change orders through change analysis reviews. These reviews analyze the size of the change and the level of coordination and changes required to implement it, all of which require pre-approval from the project manager. The project manager will document all change-order requests and communicate the change implementation across the board to all necessary team members. Lessons learned will likewise be documented.

10.4 Risk Oversight

San Bernardino County will be responsible for risk management and has budgeted a contingency for unexpected costs and budget overruns.

10.5 Conformance to Federal Requirements for Reporting

San Bernardino County will ensure all reporting requirements are fulfilled on time. The County has a fiscal team as well as grants personnel with considerable experience administering federal grant funds who will help ensure Project delivery within budget. The Project Management Plan will include procedures for reporting and grant close-out milestones.

10.6 Operations and Maintenance

Upon completion of the project, the County will be responsible for the operations and maintenance of improved and new infrastructure, including the extended Vista Road, the new Shadow Mountain Road connecting to the National Trails Highway, and the new grade separated structure carrying Shadow Mountain Road over the BNSF corridor.

