

APPENDIX B
Estimated Costs and Funding Options

Estimated Costs and Funding Options: Proposed Action and Alternative B High Profile

In Section 2 of this Environmental Assessment (EA), two build alternatives for the proposed rail realignment project are discussed: Alternative B-2 High Profile (Proposed Action) and Alternative B High Profile. Both alignment alternatives provide benefits to the Alaska Railroad Corporation (ARRC) and the Nenana community. Information on construction, maintenance, and operating costs and on funding options is provided below. The construction of these alternatives is similar, with some differences at the connection to the existing track near the existing railroad bridge across the Tanana River. This connection is the major cause of the difference in the associated construction cost for these alignments.

Proposed Action Construction Cost

The Proposed Action (Alternative B-2 High Profile) takes a route south of the developed area of Nenana and closer to the Nenana Airport. Connection to the existing track is made as the proposed elevated alignment connects to the end of the final curve before crossing the existing railroad bridge across the Tanana River. The estimated construction cost for the Proposed Action is approximately \$23.7 million.

Alternative B High Profile Construction Cost

Nenana Alternative B High Profile takes a more northerly alignment than the Proposed Action. This places it closer to the developed areas of the City of Nenana. This alternative is estimated to cost approximately \$25.2 million, about \$1.5 million more than the Proposed Action, primarily for two reasons. First, the Alternative B High Profile alignment must cross the existing ARRC tracks. The cost for this grade-separated crossing is about \$1.0 to 1.3 million. This estimate will vary due to the difficulty of constructing the grade separation while maintaining traffic on the existing track. Second, this alignment encounters several more land parcels, creating an estimated \$0.2 to \$0.5 million increase in ROW costs over the Proposed Action.

Maintenance Costs

The Proposed Action would be constructed with heavier rail, concrete ties, a clean track structure, smaller curves, and no at-grade crossings. Maintenance savings occur when high degree curves and at-grade crossings are removed from the main track, as the efficiency of the structure is improved. The existing track would remain in place as a siding or spur to provide access to the Port of Nenana, and would require limited continued maintenance due to the great reduction of traffic on the this track. However, no net increase in maintenance costs is anticipated.

Operating Costs

If the rail realignment project is constructed, approximately 2 miles of main track would be removed and track speed can be increased. These improvements provide a train running time

savings of approximately 6 to 8 minutes. Benefits to operations costs would result from the crew time and fuel time saved.

Currently, about 2,500 trains move through Nenana annually. Based on an 8-minute savings of running time approximately \$40,000 per year would be saved on freight and passenger train crews. Other savings that may result from improved running time but are difficult to quantify include those costs incurred during pick up of crews that have to cease operations when they have worked for 12 hours. Costs could also include remote pick up and replacement for these crews.

The proposed track realignment would promote improved train handling and reduce overall distance traveled. It is estimated that each of the 2,500 trains would save approximately 20 gallons per trip at an average cost of \$1.20 per gallon, resulting in an annual cost saving of \$60,000 per year.

Options for Funding

ARRC identified the Nenana area for a track realignment in the early 1940s, but the estimated cost has prevented ARRC from moving forward. ARRC would not be able to construct this project without a grant from Federal Transit Administration or the Federal Railroad Administration.