



# Fairbanks Area Rail Line Relocation

## PROJECT FACTS

### Project Scope

The Alaska Railroad Corporation (ARRC) proposes to optimize the alignment of mainline and branch track within the Fairbanks area to improve safety, customer response, and minimize transportation conflicts with the adjacent communities. The project corridor extends from the northwest side of Fairbanks near Sheep Creek to the southeast side of North Pole near Moose Creek.

The project also seeks to determine possible passenger transit services for the communities along the route. The City of Fairbanks is served by the mainline track from ARRC milepost 465 (northwest of the University of Alaska Fairbanks) to the mainline terminus at MP 470, as well as a spur to the airport. The 29-mile Eielson Branch, which begins where the mainline ends, serves Fort Wainwright, Eielson AFB and North Pole, where the Flint Hills petroleum refinery is located.

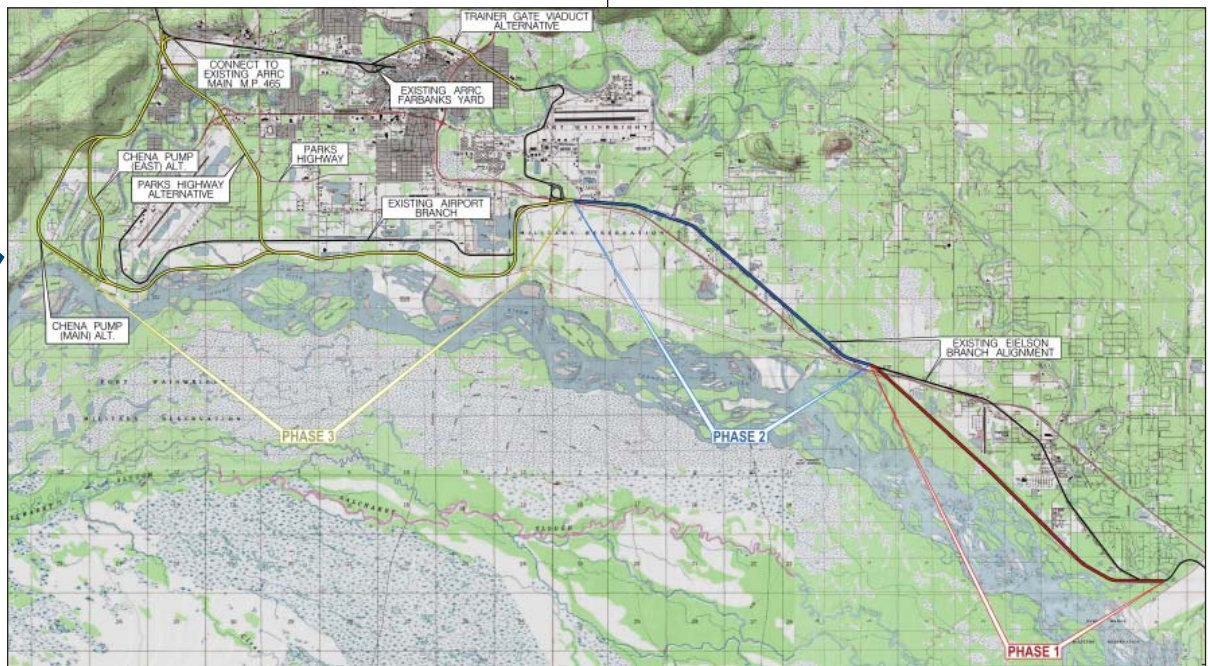
In early 2007, the corridor realignment effort was renamed the Fairbanks-North Pole Rail Realignment, and in early 2008, renamed to

Fairbanks Area Rail Line Relocation (FARLR). It stems from reconnaissance and engineering studies since 2000 that have investigated rail realignment options through Fairbanks - North Pole areas.

The overall size and cost of the project is considerable, requiring the engineering, funding and construction be accomplished in phases.

Phase 1 stretches from Richardson Hwy MP 9 to the southeast side of North Pole, near Moose Creek. Clearly the least complex from financial and engineering standpoints, Phase 1 offers substantial safety benefits and public transit possibilities. The National Environmental Policy Act (NEPA) process for Phase I could be expedited by relying on previous engineering and environmental studies.

Phase 2 stretches from MP 9 on the Richardson Hwy (vicinity of Peridot Street), northwest to 3-Mile Gate, on the west border of Fort Wainwright. Phase 3 includes the area west of 3-Mile Gate, past Chena River. While pursuing Phase 1 as the first priority, ARRC will simultaneously continue alternative analysis engineering study efforts for the second and third phases as funding allows.



## Purpose and Need

The purpose of the Fairbanks Area Rail Line Relocation Project is to: 1) enhance the safety of rail/roadway crossings, railroad operations, and pedestrian activities within urban/suburban Fairbanks and along the Eielson Branch; 2) reduce travel times and improve operational efficiency; and 3) accommodate mass transit/passenger service. Objectives are to construct a straighter railroad track alignment, reduce the number of at-grade (same elevation) roadway crossings, and establish a rail-based passenger system in the Fairbanks North Star Borough (FNSB).

**Enhance Safety:** dozens of at-grade road/rail crossings exist within Fairbanks and along the Eielson Branch. Fewer at-grade crossings would decrease the inherent safety concerns, including the potential for accidents between trains and vehicular traffic. It would also reduce roadway traffic delays, including delays to emergency response vehicles.

Sharp curves on the track increase the likelihood of train derailments, while straighter track reduces the risk. In the Fairbanks Area, there are dozens of curves ranging from 1 degree (°) to 14°, and 9 curves sharper than 6°. The desired degree of curvature is between 1° and 3°, preferably less than 2°. The proposed project would straighten sharp curves along the majority of the route to less than 3°.

Four schools have been built close to the railroad tracks: Ladd Elementary and Tanana Middle schools on Trainor Gate Road in Fairbanks, and the North Pole High School and Middle School accessible from the Old Richardson Hwy. In North Pole, students frequent popular restaurants located on the opposite side of the tracks. The project would realign the track away from the Old Richardson Highway in North Pole, eliminating community crossing conflicts.

**Operational Efficiency:** Existing track curvature limits train speed to 10-20 mph, resulting in long travel times and high operating costs (labor, fuel, etc.). Curve straightening, track rehabilitation and modern track design would allow for faster train speeds, reducing travel time through Fairbanks and between Fairbanks and North Pole. Reduced travel time would lower fuel and labor costs, thus improving ARRC's operating efficiency.

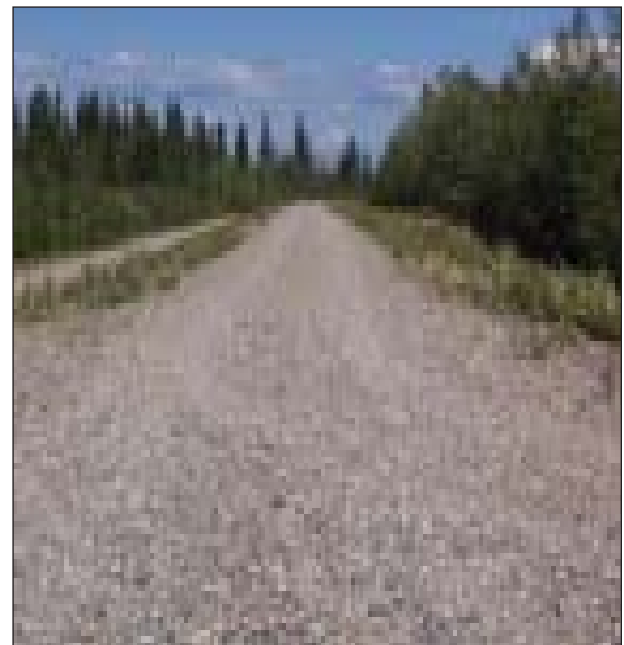
Sharp curves translate to substantially higher maintenance costs due to accelerated wear on railcar

wheels, the rail and the ties, and a breakdown of the track ballast. As a public corporation, ARRC has a fiduciary responsibility to spend wisely and efficiently. As operating and maintenance costs decrease, more funds are available to address the railroad's other critical infrastructure needs and to improve customer services.

**Passenger Transit / Passenger Service:** Transportation between Fairbanks and North Pole is primarily via personal vehicle and limited bus service. Transportation by train is not viable due to the slow travel time. The project would allow for faster train speeds and reduced travel times, potentially supporting mass transit/passenger services.

Passenger rail service would provide a safer transportation alternative during winter, which lasts five to six months in Alaska's interior. Much of the FNSB lies within an air quality maintenance area due to carbon monoxide (CO) emissions from motor vehicles that increase in low winter temperatures. The winter driving environment frequently includes blowing snow, black ice and other cold-weather conditions that render the roadways slick and dangerous.

ARRC constructed a new intermodal passenger depot that opened in Fairbanks in 2005. It is a key link in developing passenger rail service between Interior Alaska communities.



*The Tanana River Levee may provide an ideal "bed" for railroad tracks to relocate away from the more congested areas of North Pole.*

## Status

- Reconnaissance level engineering and phasing studies were completed in 2001 and 2002. These studies considered the feasibility of realignment outside of the more populated areas of Fairbanks and North Pole and offered opportunities for public comment.
- With funding from the Department of Defense (DOD), ARRC worked on preliminary design and planning for an Eielson Branch Rail Realignment (EBRR) Environmental Assessment (EA) in 2005 and 2006.
- In Summer 2006, ARRC initiated additional action to address a rail realignment outside of the more congested areas of Fairbanks. Called the South Fairbanks Rail Realignment, the effort renewed public involvement activity and extended some preliminary engineering of alternatives identified in previous reconnaissance studies.
- In December 2006, the Fort Wainwright component of the EBRR project was determined to have independent utility.
- Because of its benefit to the military, DOD funds were redirected from EBRR to the Fort Wainwright segment. The Fort Wainwright EA was put on hold in 2008 and funding may transfer to the Northern Rail Extension project.
- In early 2007, the South Fairbanks and Eielson Branch realignment efforts were combined into the Fairbanks Area Rail Realignment (FARR) project. The FARR project was renamed Fairbanks-North Pole Rail Realignment in March 2007, and in 2008, it was again renamed as the Fairbanks Area Rail Line Relocation.
- Throughout spring 2007 the Alaska Railroad worked closely with the FNSB mayor and assembly to formulate a memorandum of understanding (MOU) that outlines how ARRC and FNSB will proceed jointly to support the Fort Wainwright Bypass and subsequent phases of the relocation project. An MOU was approved by the FNSB Assembly June 20, 2007.
- In 2007-2008, ARRC conducted an Alternative Analysis (AA) of conceptual options for realigning the track in the Fairbanks and North Pole areas.

This effort concludes that the project should be tackled in three phases.

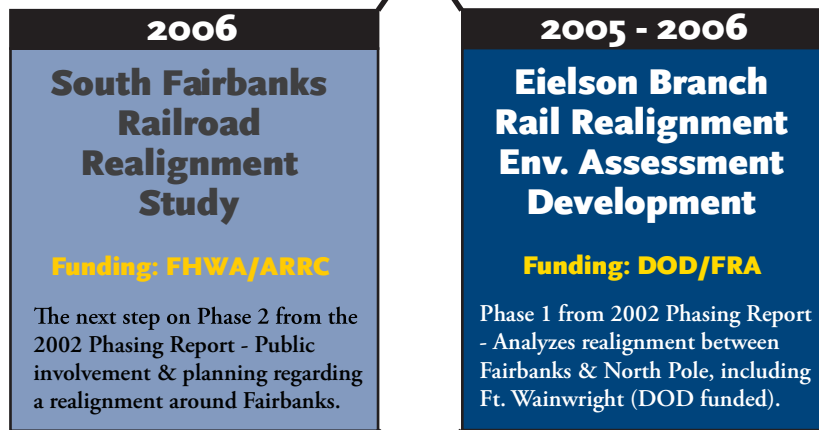
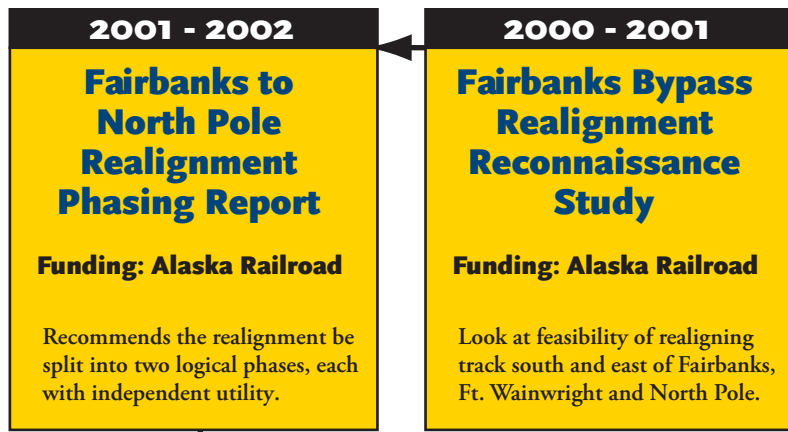
- During 2007-2009, ARRC commissioned a study to explore demand and options for enhanced passenger rail service between Denali Park and Fairbanks, and for commuter rail service between Fairbanks and North Pole. Results indicate low demand for a North Pole-to-Fairbanks commuter rail service. Results for passenger service options from Fairbanks to Denali and communities in between are inconclusive. As population density, fuel costs, and infrastructure changes (such as a Northern Rail Extension to Delta Junction) occur, public demand and sentiment will likely evolve on the north end.

## Project Costs & Funding

- The EBRR EA was estimated to cost \$1.5 million and was funded through a DOD 2005 appropriation administered as a grant through the Federal Railroad Administration (FRA). \$2 million in additional DOD funding was appropriated in 2006. Work accomplished on the EBRR EA did benefit the rail relocation project.
- \$200,000 in initial funding to accomplish preliminary engineering was provided 91% by the Federal Highway Administration (FHWA) with a 9% match from the Alaska Railroad. Remaining funds from this money were used to pursue Alternative Analysis (AA) work for the relocation project. \$200,000 was budgeted for 2007, funded by FHWA and ARRC match.
- A \$250,000 Federal Transit Administration (FTA) grant in 2007 continued work on the Alternative Analysis and also funded a *North End Rail Public Transportation Study & Operation Plan*. Funding is 91% FTA and 9% ARRC.
- Project cost range for design and construction of the relocation efforts are estimated to exceed \$200 million. Funding for preliminary engineering, environmental documentation, final design and construction has not been identified. Funding alternatives for the environmental phase are under development, however no funding is currently in place.

### Funding Legend

- Alaska Railroad
- Department of Defense via the Federal Railroad Administration
- Federal Transit Administration and Alaska Railroad match
- Federal Highway Administration and Alaska Railroad match
- No Funding Identified



### The Role of Previous Studies

*The Fairbanks Area Rail Line Relocation draws on several previous studies and environmental documentation efforts. Reconnaissance studies began in 2001, and additional environmental studies were initiated as recently as 2007.*

