

# Track Rehabilitation

## Project Scope

The Alaska Railroad (ARRC) continues an ongoing track rehabilitation program in 2024 to upgrade the main line, sidings and yards from Seward to Fairbanks. The program calls for replacing rail plates, ties, fasteners and ballast in areas of critical need. For engineering / maintenance purposes, ARRC divides the main line into three districts:

- MP 0 (Seward) to MP 117 (Anchorage Yard)
- MP 117 to MP 345 (north of Anchorage yard and south of Denali Park)
- MP 345 to Eielson AFB

## Project Cost and Funding

The 2024 capital track rehabilitation budget is approximately \$22.2 million. Of that, \$20.6 million is funded with Federal Transit Authority (FTA) formula funds and ARRC match. Another \$1.6 million are projects utilizing internal ARRC funds. Other projects will be utilizing ARRC funds

for rip-rap embankment, drainage improvements, and yard/branch improvements. Funding supports:

- Replacing wood ties
- Track bed surfacing
- Yard improvements
- Drainage improvements (culvert repair)
- Embankment fortification
- Rail gauging (distance between rails)
- Tie and rail pick-up and clean-up
- Removing/replacing fouled ballast (contract)
- Relaying continuous welded rail (CWR)

## Rail Program

Rail is replaced when it has worn away in curves, or become severely battered in tangent sections. The 2024 Rail Program includes:

- relaying 20,000 feet of CWR
- upgrading tie plates and fasteners; and
- clean-up and pick-up from prior years.

## Tie Program

The 2024 Tie Program calls for installing up



*Left: A tie crane operator positions a new tie during tie replacement operations. Right: Rail replacement operations. (Photos by Judy Patrick)*

# PROJECT FACTS

to 45,000 wood cross ties on the main line track, on branch lines and within yards. ARRC tracks include nearly 2 million ties. Since 1996, ARRC has replaced about half (about 1 million) ties. Heavy tie renewals in the late 1990s resolved critical main track issues; however, the tie population is generally old, so continual renewals are needed to keep up with the ongoing loss of older ties.

## Ballast Surfacing

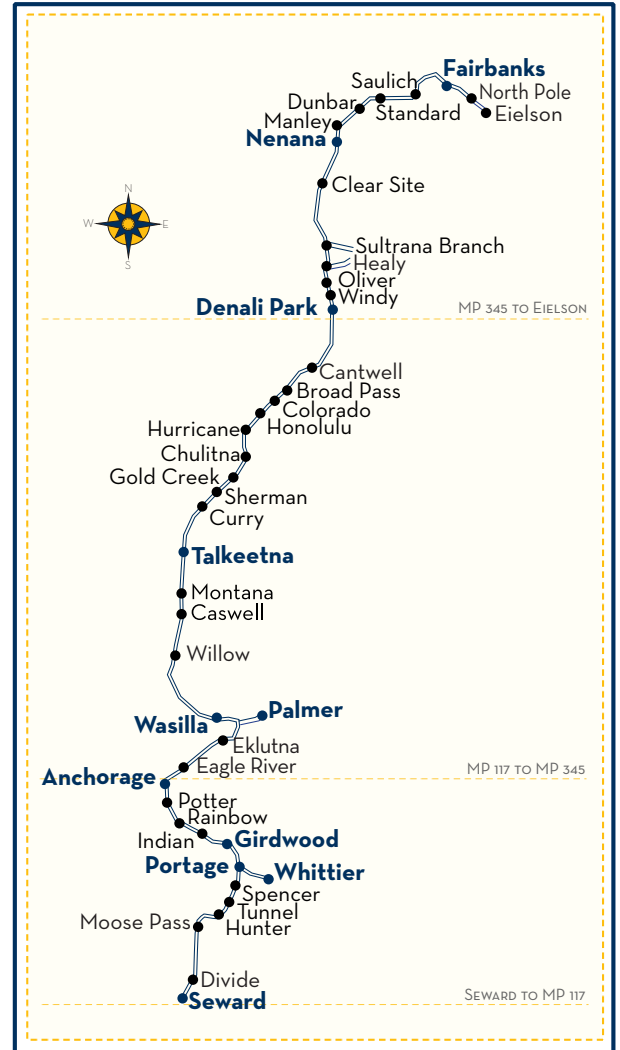
The bed of a railroad track is comprised of several layers. The top layer is called ballast, which is made up of small, jagged rocks that fit snugly together, forming a stable bed that can withstand the tremendous weight of a train while still providing drainage. The 2024 Ballast and Surfacing Program will use about 40,000 tons of ballast rock. About 190 track miles of surfacing will occur in all districts, as needed, and follows tie replacement efforts.

## Shoulder and Embankment

ARRC pursues shoulder maintenance to enhance track safety via embankment support. In areas susceptible to high water events, ARRC may fortify the embankment by installing rip-rap and armor rock. Culverts provide drainage from one side of the embankment to the other side. Culverts are extended, repaired or replaced as needed.



Rip-rap and armor rock are placed along the Susitna River.



## More Information

For more project information, email the Alaska Railroad at [Public.Comment@akrr.com](mailto:Public.Comment@akrr.com). Additional project fact sheets are available online at [AlaskaRailroad.com](http://AlaskaRailroad.com) > Corporate > Projects (look under System Wide Projects).



A tie remover/insertor has powerful mechanized arms (close-up, right) that can extract old, and install new, ties from either side.