ALASKA RAILROAD

PROJECT FACTS

Bridge Program

Project Scope

The Alaska Railroad's (ARRC) 500-plus miles of mainline and branch track includes 175 bridges and large culverts (10 or more feet in diameter) that cross barriers ranging from streams to gulches. Railroad bridges may be constructed from steel, concrete, wood or a combination of materials, with varying span types included in a single bridge.

The ARRC Bridge Program identifies structures requiring rehabilitation or replacement. In pursuit of this program, ARRC's current 5-year plan calls for dozens of bridges to be replaced or rehabilitated by internal and contract workers. In addition to these large projects, ARRC's bridge crews accomplish annual repair, rehabilitation and reconstruction activities to ensure bridge structures continue to safely support ARRC operations.

Some of the existing railroad bridges have been identified as eligible, or potentially eligible, for the National Register of Historical Places, either individually or as contributing elements to a potential historic district. As necessary, ARRC will consult with the Alaska Office of History and Archaeology (OHA)/State Historic Preservation Officer (SHPO).

Need, Purpose and Benefits

The ARRC Bridge Program focuses on infrastructure integrity that supports safe, reliable rail-road transportation services. The Alaska Railroad operates over the oldest transportation infrastructure in the state. Many rail system bridges were constructed decades ago. The ARRC Bridge Program pursues heavy maintenance, rehabilitation and replacement to maintain bridges in a state of good repair.

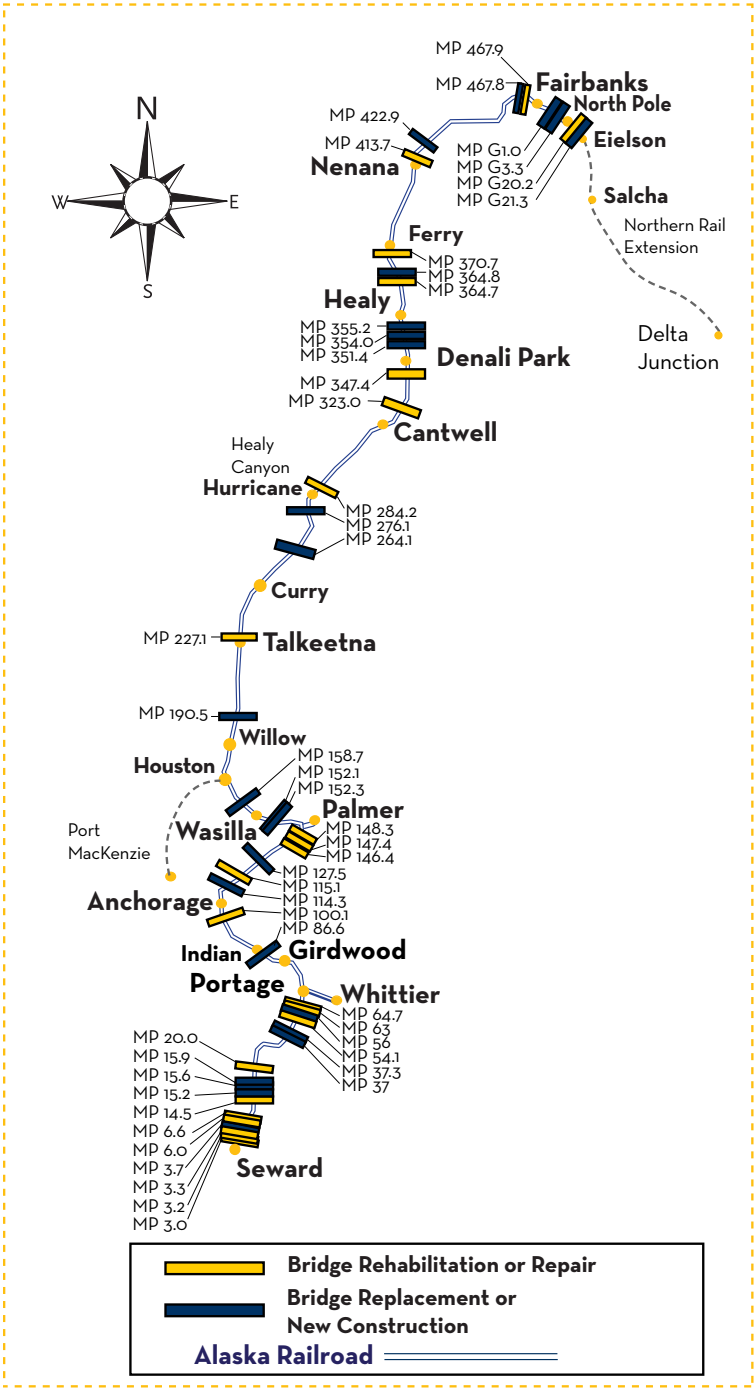
Program activities will address operational efficiency. ARRC is forced to slow train speeds due to bridge age and deterioration. ARRC must also perform more preventive maintenance and repairs in order to keep older bridges in safe and serviceable condition.

Above: ARRC received an FRA CRISI (Consolidated Rail Infrastructure And Safety Improvements) Program grant to rehabilitate this 1,298-foot, 12-span though truss bridge over the Tanana River in Nenana, Alaska (MP 413.7).

Jan. 10
2025

ALASKA RAILROAD

Above: ARRC will replace single-span 80-foot bridge crossing Little Willow Creek at MP 190.5. The project will replace the aging structure with a new 125-foot single-span thru-plate girder bridge.



Existing rail bridge limitations also make freight operations more costly. ARRC must regularly limit loads on railcars to accommodate rail bridge weight capacity that is significantly lower than the rest of North America's rail freight network.

Program Benefits

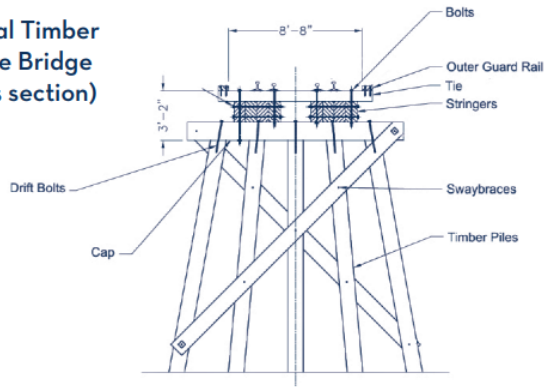
The ARRC Bridge Program's multi-year plans strengthen bridge infrastructure over time, while annual rehabilitation activities address high priority projects identified through inspections and other ongoing preventive maintenance activities. Benefits from these concurrent efforts include:

- Maintaining components that wear over time improves operating safety, ensuring bridge assets remain in a state of good repair, able to fulfill their intended useful life in a safe and reliable manner.
- Replacing 50-year-old timber bridges and bridge components addresses maintenance and safety concerns.
- Efficiency of railroad operations will improve as trains move at consistent speeds, when no longer required to reduce speed while traveling over bridges.
- Rehabilitated and newly constructed bridges are in better condition, requiring less maintenance to remain in service, thus lowering overall maintenance expense.
- Reinforcing or upgrading bridges and/or their components will increase capacity to support modern load demands of locomotives and trains.

Project Cost and Funding

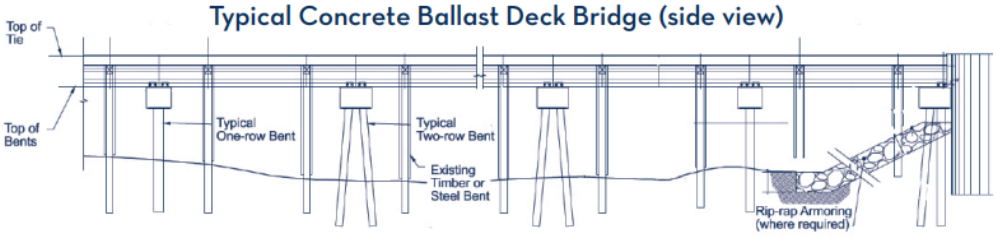
The ARRC's 2025 Bridge Program budget is approximately $15 million. A majority of the bridges are funded with Federal Transit Administration (FTA) formula funds, which require a 20 percent match from ARRC. The remaining bridge projects are internally funded by ARRC or through competitive grants from the Federal Railroad Administration.

Typical Timber Trestle Bridge (cross section)



Above: The bridge at MP 54.1 over the Placer River near Spencer Glacier is being rehabilitated, including replacing four (4) 15-foot timber approach spans and abutments with two (2) steel beam spans and abutments.

Typical Concrete Ballast Deck Bridge (side view)



2025 Bridge Program Projects

Below, project locations identified by milepost (MP) along the main line or alphabetic branch line designation, followed by water body (if applicable), nearest community, a general description of the existing bridge structure, and a description of proposed work if it has been determined. If a single location is identified under Rehabilitation and Repair Projects and Replacement Projects, ARRC's bridge crews are performing annual repair and rehabilitation to ensure bridge structures continue to safely support operations while a replacement project is in development.

Rehabilitation and Repair Projects

Rehabilitate components to strengthen bridges reaching the end of their useful life. These bridge rehabilitation project locations include:

- **MP 14.5** (Snow River north of Seward) - 718-foot eight-span through-truss and I-beam bridge.
- **MP 54.1** (Placer River South of Portage) - 256-foot five-span through-truss and timber bridge.
- **MP 64.7** (Twenty Mile River just north of Portage) - 490-foot, seven-span deck truss bridge.
- **MP 227.1** (Talkeetna River in Talkeetna) - 400-foot, two-span through-truss bridge.
- **MP 284.2** (Hurricane Gulch) - 870-foot, nine-span, deck truss and deck girder bridge.
- **MP 413.7** (Tanana River in Nenana) - 1,300-foot, 12-span through-truss, deck truss and deck girder bridge.
- **MP 467.9** (Noyes Slough at the west end of the Fair-banks) Rail Yard) 125-ft through-truss, 28-ft I-beam, thirteen 14-ft wood decks - replace the timber approach spans with steel beam spans and repair the through-truss span.

Repair or replace rivets, diaphragms, bearings, seats, ties, plates, guard rail, signage, bracing and other elements at various bridges throughout the system, including:

- **MP 3.0** (Resurrection River) – Two 80-foot through girders and one 33-foot I-beam bridge.
- **MP 3.2** (Resurrection River) – One 120-foot through girder bridge.
- **MP 3.3** (Resurrection River) – One 80-foot through girder and two 33-foot I-beam spans bridge.
- **MP 6.0** (Salmon Creek) – 15-foot wood deck bridge.
- **MP 63.0** (Portage Creek near Portage) – Three 50-foot I-beam and two 30-foot I-beam span bridge.
- **MP 115.1** (Ship Creek near Post Road in Anchorage) – Ten 14-foot spans wood deck bridge.
- **MP 264.1** (Big Susitna River, 16 miles north of Curry) – One 504-foot through truss, two 70-foot through girders, one 60-foot through girder, six 14-foot wood decks, and one 10-foot wood deck bridge.
- **MP 323.0** (Windy Creek) – Two 60-foot through girder bridge.
- **MP 364.7** (Panguingue Creek) – Four 14-foot wood deck bridge.
- **MP 364.8** (Panguingue Creek) – Six 14-foot wood deck bridge.
- **MP 370.7** (Nenana River) – Two 200-foot through truss, and one 82-foot through girder bridge.
- **MP G-20.2** (Chena River flood diversion just east of North Pole) – Fifteen 70-foot concrete ballast deck bridge.

PROJECT FACTS

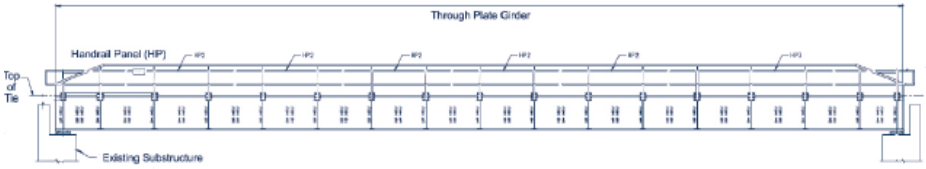
ALASKA RAILROAD

Replacement Projects

- **MP 3.7** (Salmon Creek just north of Seward) - replace a 103-foot seven-span timber bridge with a structure determined during the design process.
- **MP 15.2** (Snow River tributary north of Seward) - replace a 14-foot single-span timber bridge with a structure determined during the design process.
- **MP 15.6** (Snow River tributary north of Seward) – replace a 45-foot three-span timber bridge with a structure determined during the design process.
- **MP 15.9** (Snow River tributary north of Seward) - replace a 15-foot single-span timber bridge with a structure determined during the design process.
- **MP 37.0** (Trail Creek in the Hunter Flats Area) - replace the 240-foot 16 span timber bridge with a structure determined during the design process.
- **MP 37.3** (Trail Creek in the Hunter Flats Area) - replace the 74-foot 5 span timber bridge with a structure determined during the design process.
- **MP 56.0** (Spencer Pit Drainage south of Portage) – replace a 60-foot four-span timber bridge with a structure determined during the design process.
- **MP 86.6** (Bird Creek near Indian) – replace the 123-foot pony truss and two 14-foot timber trestles with a 125-foot through-plate girder.
- **MP 114.3** (Ship Creek in the Anchorage Rail Yard) – replace the 123-foot pony truss bridge with two 79-foot beam spans and one 30-foot beam span.
- **MP 127.5** (Eagle River north of Joint Base Elmendorf-Richardson) – replace a five-span 308-foot deck girder bridge, with a three-span 360-foot steel beam bridge.
- **MP 152.1** (Spring Creek south of Wasilla) – replace a 70-foot five-span timber bridge with a structure determined during the design process.
- **MP 152.3** (Spring Creek drainage south of Wasilla) – replace a 25-foot two-span timber bridge with a structure determined during the design process.

Left: ARRC will replace the 123-foot pony truss bridge crossing the Ship Creek in Anchorage, Alaska (MP 114.3) with two 79-foot beam spans and one 30-foot beam span.

Typical Thru-Plate Girder Bridge (side view)



- **MP 158.7** (Cottonwood Creek in Wasilla) – replace the six-span 84-foot timber trestle bridge with a concrete ballast deck bridge with two 28-foot spans.
- **MP 190.5** (Little Willow Creek north of Willow) – replace the single-span 80-foot deck plate girder bridge with a 125-foot through-plate girder bridge.
- **MP 264.1** (Big Susitna River) – replace the 11 span 798-foot structure with a structure determined during the design process.
- **MP 276.1** (Pass Creek 8 miles south of Hurricane) – replace the four-span 56-foot timber bridge with a timber bridge on steel bents.
- **MP 351.4** (gully / creek just north of Denali Park entrance) – replace the triple-span 369-foot pony truss bridge with a 175-foot steel plate girder and two 65-foot steel spans.
- **MP 354.0** (Bison Gulch approx. 5 miles south of Healy) – replace a 123-foot pony truss and four 31-foot I-beam spans with a bridge comprised of one 125-thru plate girder span, three 30-foot I-beam spans, and one 40-foot I-beam span.
- **MP 355.2** (gully / creek about 4 miles south of Healy) – replace a 123-foot pony truss bridge and a 14-foot timber trestle with a 125-foot steel through-plate girder bridge and improved stabilization.
- **MP 364.7** (Panguingue Creek North of Healy) - replace a four span 14 - foot wood deck structure with a structure determined during the design process.
- **MP 364.8** (Panguingue Creek north of Healy) – replace a 84-foot six-span timber bridge with a structure determined during the design process.
- **MP 422.9** (Little Goldstream Creek about 10 miles north of Nenana) – replace a single-span 62-foot thru-girder bridge with a 75-foot steel span bridge.
- **MP 467.8** (Noyes Slough flood area near the Fairbanks Rail Yard) – replace a seven-span 98-foot timber deck bridge with three 48-inch-diameter steel culverts.
- **MP G-1.0** (Noyes Slough, just east of Fairbanks Yard) - replace 125-foot pony truss with 125-foot through-plate girder.
- **MP G-3.3** (Chena River, near Ft. Wainwright) - replace the 6 span 647- foot structure with a structure determined during the design process.
- **MP G-21.3** - Replace 59-foot I-beam comprised of four 14-foot wood decks with a 62-foot through-girder bridge.

More Information

For more project information, email the Alaska Railroad at **Public_Comment@akrr.com**. Additional project fact sheets are available online at AlaskaRailroad.com > Corporate > Projects (look under System Wide Projects).