Bridge Program

Project Scope
The Alaska Railroad (ARRC) 500-plus miles of mainline and branch track includes about 160 bridges that cross barriers ranging from streams to gulches. Nearly 70 are constructed entirely of steel, about 60 are constructed entirely from timber, about two dozen are constructed entirely of concrete, and the remainder are of mixed construction (i.e., the Matanuska River Bridge includes steel, concrete, timber spans).

The ARRC 2019 Bridge Program calls for major maintenance, overhaul and replacement needed to maintain corridor integrity, safety and efficiency. The long-term plan includes replacement of many timber bridges.

Some existing railroad bridges are identified as eligible for the National Register of Historical Places, either individually or as contributing elements to a potential historic district. Projects involving these bridges are noted with * on the project locator map. As necessary, when the annual Bridge Program includes work on NRHP-eligible structures, mitigation will be conducted according to agreements with the Alaska State Historic Preservation Officer (SHPO).

Purpose and Need
• Upgrading bridges affords an increase in train speed and operational efficiency.
• Reinforcing or replacing some bridges and/or their components better accommodates load demands of a more modern, yet larger and heavier, fleet of locomotives and trains.
• Replacing 50-year-old timber bridge components addresses maintenance and safety concerns.

Project Cost and Funding
Projects included in the $3.56 million 2019 bridge program budget are funded primarily by ARRC. The major rehab and pier replacement at Ferry Bridge, MP 370.7, is funded by a Federal Emergency Management Agency grant (75% FEMA; 25% ARRC).

New / Replacement Bridge Projects
Replace the 126-foot timber bridge at MP F1.2 (Whittier Creek in Whittier) with a timber bridge on steel bents. Complete replacement of the five-span 123-foot open deck military pony truss bridge at MP 147.5 (North Channel of Knik River) with a through-girder ballast deck span. The 147.5 project started in 2018 (see separate fact sheet).

Bridge Rehab and Repair Projects
Replace tie decks and upgrade floor systems on through-girder bridges between Portage and Matanuska. Bridge strengthening work includes replacing rivets with high-strength bolts at stringer-to-floorbeam connections. Primary among these bridge
sites is at MP 146.4 (Knik River), a bridge consisting of nine 80-foot spans. Five other potentials for this work include through-girder span bridges at MP 68.4 (Peterson Creek), MP 74.5 (Glacier Creek in Girdwood), MP 136.4 (Peters Creek in Birchwood), MP 140.8 (Eklutna River), and MP 148.3 (Matanuska River).

Rehabilitate pedestal bearing areas and tower/span connections on the five deck girder spans comprising the 308-foot bridge at MP 127.5 (Eagle River).

Replace ties on the 80-foot deck girder, and replace damaged or deteriorated components on the 98-foot approach span, at MP 207.8 (Goose Creek, 10 miles north of Kashwitna).

Replace bridge bearings with elastomeric assemblies at MP 211 (Montana Creek).

Replace timber stringers and the tie deck at the 98-foot timber bridge at MP 248.7 (Deadhorse Creek near Curry).

Monitor and address roadbed and bank stability through Healy Canyon with retaining walls and slope dressing.

Finish the pier replacement work that began in 2017 at Ferry Bridge at MP 370.7 (Nenana River) (see separate fact sheet).