

Seward Fiber Optic Communications Upgrade

Project Scope

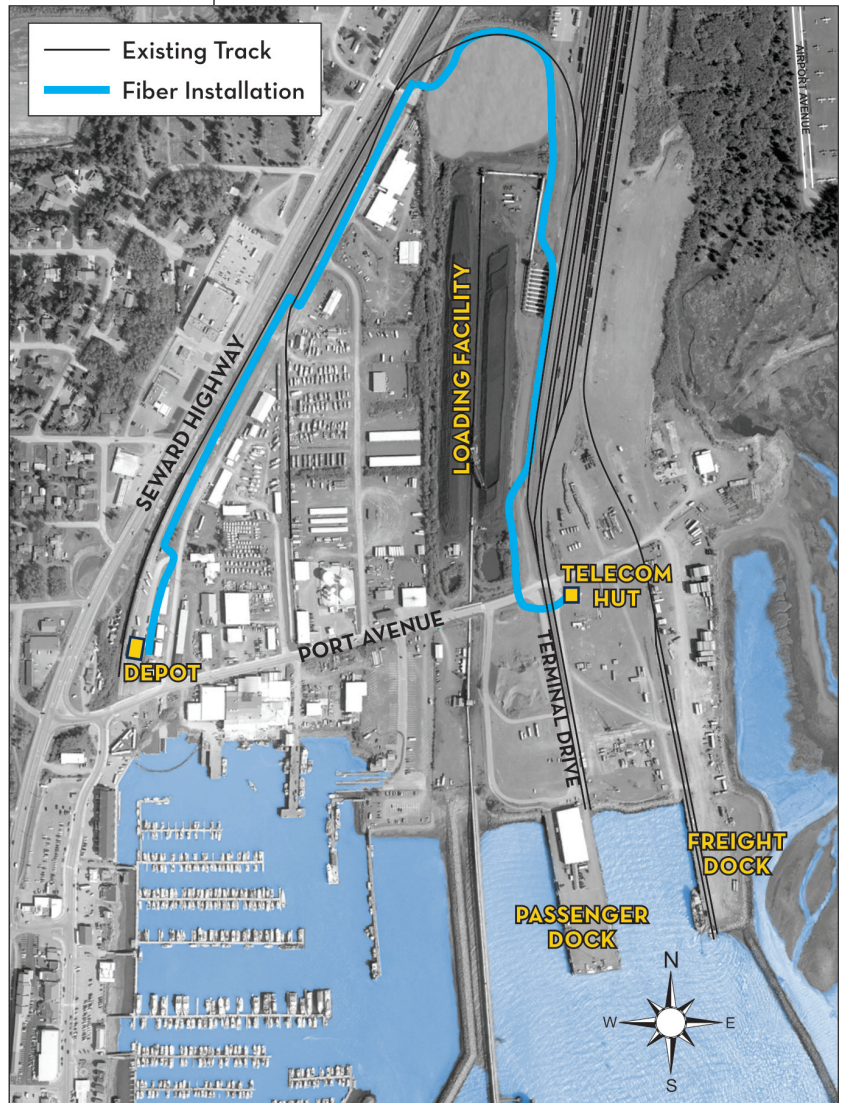
The Alaska Railroad (ARRC) plans to upgrade Seward operational communications by installing underground fiber optic cable. The project calls for 8,000 feet of cable to link ARRC's passenger depot with a railyard communications equipment shelter (telecom hut) about one-third mile away.

Constructed entirely on Alaska Railroad property, the project addresses Seward Passenger Depot communication outages caused by lost microwave communications links that are slow to recover. Occurring several times each year, such communications service disruptions can hamper train movement and passenger ticketing, negatively impacting railroad operations. In addition, microwave outages increase costs as communication technicians are dispatched to troubleshoot and fix the problem, often requiring overtime.

The project involves excavating a trench about four feet deep in which to bury a 24-strand single mode fiber optic cable, housed inside a protective high-density polyethylene (HDPE) conduit. Cable will connect the Seward Depot at Seward Highway and Port Avenue, with the telecom hut

located along the tracks near the intersection of Port Avenue and Terminal Drive.

Manholes and handholes installed along the cable route will facilitate fiber maintenance and repair.



Project Area Map

Status

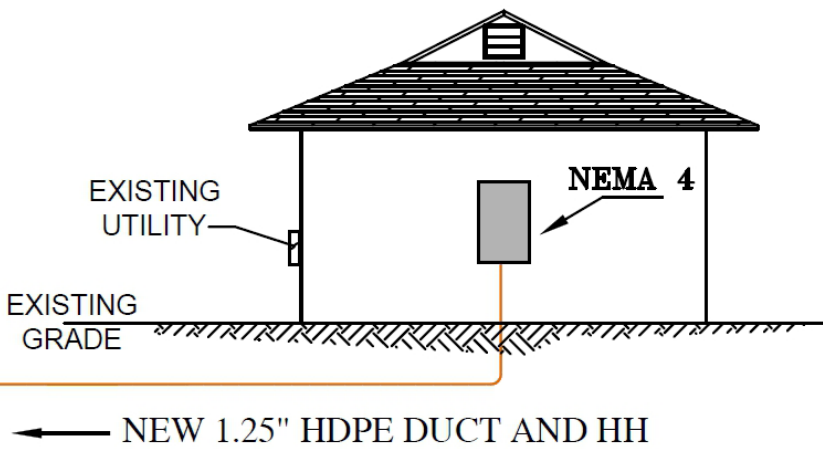
The communication path study and environmental documentation are complete. Installation is anticipated to begin shortly after the end of 2020 passenger train season, in early fall.

Cost and Funding

The project budget is \$337,000, to cover the cost of the communications path study, project planning and construction. Funds come from Federal Transit Administration (FTA) 5307 formula grant money from 2018 (\$120,000), 2019 (\$124,000) and 2020 (\$93,000). These FTA grants require a 20% cash match from the Alaska Railroad, which is reflected in the above-noted amounts.



Spools of fiber optic cable like the cable used in this project.



Seward Passenger Depot

Left: the fiber optic cable connects to the depot through an indoor/outdoor protective electrical enclosure box (NEMA 4) installed on an exterior wall.

Telecom Hut >
Right: The telecom hut and a nearby fiber maintenance manhole.

