Potter Hill (MP 103) Embankment Repair and Slope Stabilization

Background
The 7.1 magnitude earthquake on Nov. 30, 2018, damaged Alaska Railroad (ARRC) track infrastructure in several areas in Southcentral Alaska. This project addresses one area of damage along the mainline track near Potter Hill (ARRC milepost 103) in South Anchorage. ARRC will repair embankment that failed and will stabilize the adjacent slope that lies between the track and the Ocean View Bluff neighborhood. The project is within the ARRC right-of-way (ROW) and is part of a broader effort to address damage from the earthquake.

Scope
The majority of slope and embankment work will occur on the inlet side of the tracks, adjacent to homes along Jarvi Drive, Hancock Lane and Turnagain Bluff Way. Slope material that was displaced or shifted during the earthquake will be replaced. Damaged slope structure will be rebuilt to promote slope stability. At the northern, or up slope, edge of the ARRC ROW (within the Ocean View Bluff community) the project will clean and restore the ditchline and restore the damaged storm structure.
**Project Benefits**

Repairing the damaged embankment and associated drainage structures will help prevent additional embankment failure.

The project also benefits homeowners along the project corridor. The project maintains and repairs existing facilities designed to provide slope stability and support for homes along the bluff. Ditching and storm structure restoration will provide adequate bluff drainage, and reduce erosion potential.

**Project Status**

- Following the Nov. 30 earthquake, ARRC’s Engineering and Project Management departments responded quickly to oversee professional surveying, engineering and design work.

- Beginning in November 2019, ARRC will transport slope stabilization material, by rail, from quarries in Southcentral Alaska to the project site.

- Granite Construction Company is awarded the civil construction work, scheduled to begin in mid-November 2019. Project completion is expected by spring 2020, when vegetative stabilization efforts can conclude.

**Project Funding**

- This project is funded with money generated by Alaska Railroad operations. ARRC has requested assistance from the Federal Emergency Management Agency (FEMA).

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**ESTIMATED SLOPE STABILIZATION QUANTITIES**

<table>
<thead>
<tr>
<th>STATION</th>
<th>ANGULAR ROCK FILL</th>
<th>COMPACTED SAND/GRavel</th>
<th>EXCAVATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>STA 5217+50 - 5220+00</td>
<td>2545 C.Y.</td>
<td>1918 C.Y.</td>
<td>3378 C.Y.</td>
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<td>STA 5232+50 - 5235+25</td>
<td>2750 C.Y.</td>
<td>3482 C.Y.</td>
<td>7743 C.Y.</td>
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<td>TOTALS</td>
<td>5691 C.Y.</td>
<td>10571 C.Y.</td>
<td>16380 C.Y.</td>
</tr>
</tbody>
</table>

**A TYPICAL SLOPE STABILIZATION**

This engineering drawing shows the key elements of slope stabilization efforts that will occur as part of this project.

Additional engineering drawings for the project improvement plan are available online at AlaskaRailroad.com > Corporate > Projects (click on Anchorage Projects and scroll to the “MP 103 Potter Hill Earthquake Repair” project heading.)