

## PROJECT OF THE YEAR: TRANSPORTATION \$25 MILLION-\$75 MILLION

### Oregon 38: Elk Creek – Hardscrabble Creek – Bundle 401

**Managing Agency:** Oregon Department of Transportation

**Primary Contractor:** Slayden Construction Inc.

**Primary Consultant:** T.Y. Lin International

**Nominated By:** APWA Oregon Chapter

The Oregon Department of Transportation (ODOT) is repairing or replacing hundreds of bridges statewide as part of the Oregon Transportation Investment Act III State Bridge Delivery Program. In the course of this 10-year, \$1.3 billion project, ODOT has faced many challenging mobility situations, not the least of which presented itself in the Town of Elkton.

As part of the \$52 million Bundle 401 project, Oregon 38: Elk Creek – Hardscrabble Creek, ODOT replaced five bridges on Oregon 38 between Elkton and Drain. Oregon 38, a key route connecting Interstate 5 with Coos Bay, runs through downtown Elkton and past a few storefronts before continuing its winding path toward the Oregon coast. It is a vital transportation corridor for agriculture, livestock, lumber, and many basic goods and services. It also serves as a scenic and convenient route for recreational vehicles, as well as local traffic.

This project was a demanding and complex undertaking from a number of perspectives. Many of the project's challenges arose from the terrain surrounding the bridge replacement sites.

The five replacement bridges lie in a 14-mile corridor of winding, narrow highway. Along much of that section, the roadway is flanked by large rock slopes and Elk Creek as it winds its way to the Pacific Ocean. The rock slopes are typically covered with soil, which makes them very unstable during the winter months; contractors must exercise extra caution when performing work during that season.

The greatest technical challenge arose in replacing the two bridges immediately adjacent to the east and west ends of the Elk Creek tunnel. On the east side, the bridge ends with less than 40 feet until the tunnel begins. As a result, a standard traffic-detour method, building a temporary structure to carry traffic during construction, was impossible; traffic would not have been able to navigate the extreme angle necessary to connect the temporary structure to the tunnel mouth.

ODOT's design-build team chose rapid replacement to replace the bridge on the east side of the tunnel. On the west-side bridge, ODOT had the option to build a traditional detour structure; however, because the equipment

would already be in place, ODOT opted to use rapid replacement again.

Once engineering was finished, precast concrete beams and other pieces were assembled, and a new bridge, substructure and gigantic steel tracks were built in 10 months. Prior to the first bridge slide, the new concrete span was shipped in parts to Elkton and assembled adjacent to the existing structure. During this time, crews also built supports for the new structure under the existing one.

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