

Transportation Projects Aimed at Easing Traffic Congestion, Increasing Mobility

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Transportation related projects are adding over \$5 billion to the Northwest economy over the next five years. Voter approved tax levies and bond issues are a major portion of the funding.

Transportation projects will be a driving force in Oregon and Washington for the next few years, thanks to a major funding initiative from voters and help from the federal government.

Congress passed a new version of the SAFETEA-LU legislation, which will provide \$3.1 billion in funding in Washington state and \$2.2 billion in funding for Oregon between 2005 and 2009.

State voters in Washington also passed a 9.5-cent gas tax increase to fund highway projects. In Oregon, contractors are using bond money approved by voters there to repair bridges and improve freight mobility throughout the state.

By the time the projects funded by the Oregon Transportation Investment Act are completed in 2012, every bridge

in the state will have been rebuilt or improved. The repairs will allow the bridges to carry heavier loads.

The boost in funding and a critical need for improved traffic flow are spurring innovative techniques and contracting methods. Design-build delivery is one way to perform the work quickly.

"With a design-build-bid project, you would take two or three years to design it, and another year to put out bids and award it," said Moe Dichari with the Oregon Bridge Partners Associates, a consortium of engineering firms overseeing the OTIA projects. "With design-build, once we pick a team, it can start construction and design the project at the same time."

In Oregon the delivery method >>



The retaining wall is part of construction along I-405.



The Everett Project will greatly improve traffic flow in one of I-5's major bottlenecks.

Though many of the bridge replacements were routine, the team on two occasions broke its own record for installing the longest prestressed girder in the state.

The beams allowed for a single span to be used over Alder Creek, which broke the record first, and another one over Chemault Creek. A double span would have necessitated a maintenance agreement with the Burlington Northern Railroad because of railroad tracks below the bridges.

"We chose Morse Brothers out of Harrisburg (Ore.) to make the girders because they had trucks heavy enough to transport them, but coordinating traffic through the Portland area was difficult," Killand said.

Throughout the project, the team worked to recycle or reuse as much of the concrete and asphalt as possible.

Sauvie Island Bridge

The new bridge will feature many improvements over the current bridge, including:

- Two wider (12 ft.) traffic lanes, with a second westbound turn lane at the intersection with Highway 30 to assist traffic exiting the island.
- Two 6-ft. sidewalks.
- Two 6-ft. shoulders.
- Gentler, safer curves on the island approach to the bridge.
- Wider horizontal clearance for river traffic and identical vertical clearance for river traffic.

Several architectural features were designed with the help of a Citizen Advisory Committee of 10 volunteers from Sauvie Island and nearby neighborhoods. Committee members worked with the project team, including engineers from Multnomah County and David Evans and Associates, an engineering firm in Portland, and the bridge architecture firm H2L2

The committee helped to select a >>

will account for 140 projects worth more than \$610 million over the next four years. Washington is using design-build on three current projects.

"You can expect to see a lot more of it in the future," said Colleen Gantz, a public information officer with the Washington DOT.

It can be a difficult concept for many in the DOT management to get used to, Don Williams, a Washington DOT project manager, said at a recent meeting of the Design Build Institute of America, Northwest Chapter. "The department of transportation is so used to close oversight, it's hard for us to get used to the fact that the contractor is now taking responsibility of certain functions."

Here is an overview of some local transportation projects now under construction:

Oregon DOT Mount Hood to Chemault

Description: Replacement of 12 bridges along a 214-mi. section of Highway 97 and SR 26 to improve freight mobility. Construction of a 1.8-mi. passing lane.

Wildish Construction is 98 percent complete on the project, with plans to finish final paving and punch-list items as weather permits.

Key Players

General Contractor Wildish Construction, Eugene

Engineer David Evans and Associates

Oregon DOT chose a design-build contract for the job.

"The next phase of the Oregon Transportation Investment Act calls for replacing bridges along Interstate 5, and the milestone was to have another north-south route accessible before the I-5 phase of the project," said Dicañri. Another OTIA goal is to stimulate Oregon's economy by hiring local companies and construction workers.

"We hired three different asphalt paving companies, but it wasn't to meet that goal," said Red Killand, a project manager with Wildish Construction, Eugene, Ore. "We were so spread out, we didn't have any choice."