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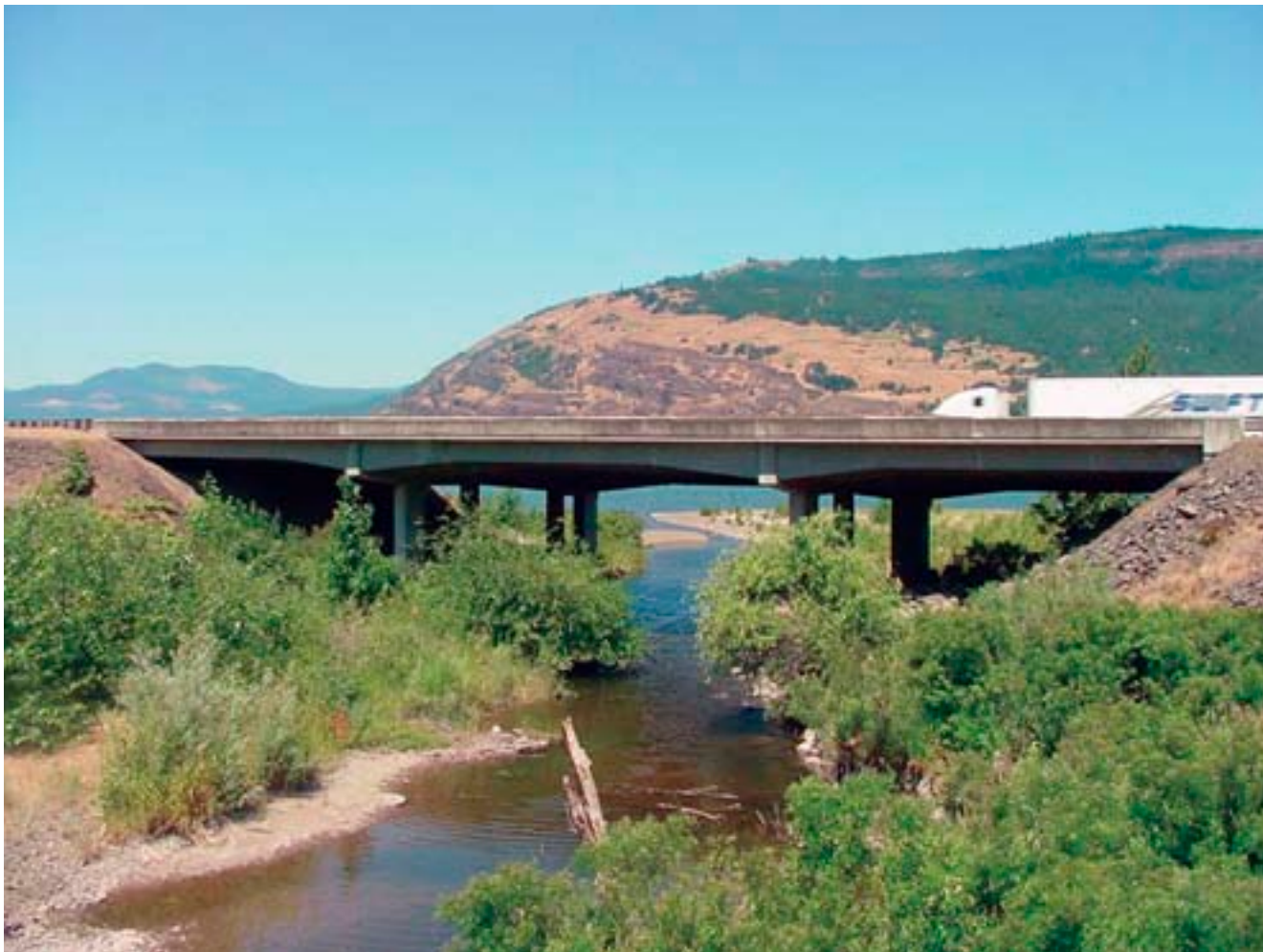
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Historic drawbridge reopens

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Oregon's bridge-delivery program

Ten-year program is reshaping the state's highway system.

By Thomas Lauer

Few drivers today remember a time before interstate highways and cloverleaf interchanges allowed for easy movement of traffic between roads. Our modern road systems have become an integral part of our everyday lives. They provide for smooth access to just about anywhere motorists want to go and are a vital part of the distribution system that keeps stores stocked with the goods consumers want to buy.

So it was alarming to the public and freight haulers alike when in 2001, regular bridge inspections by the Oregon Department of Transportation (ODOT) showed that the state's bridges were weakening and many required immediate weight restrictions, detours, and emergency repairs. By 2003, ODOT was forced to place weight restrictions on 140 bridges.

The most problematic bridges were the cast-in-place reinforced concrete

deck-girder bridges built between 1947 and 1962. A majority of these bridges (52 percent) showed diagonal-tension cracking, and nearly half of them were along the Interstate 5 and Interstate 84 corridors, which carry the bulk of Oregon's commercial truck traffic.

In March 2001, when Ford's Bridge on I-5 in Southern Oregon was declared unsafe and in need of emergency repairs, the resulting detour sent large volumes of traffic — especially

The Mosier Creek Bridge in the Columbia River Gorge National Scenic Area is just one of the hundreds of bridges across Oregon being repaired or replaced through the bridge program.

truck traffic — through Canyonville and Riddle for 20 days. The city streets of these small towns were not designed for such high volumes of traffic. The delays in travel times associated with the detour and the disruption it caused to these two communities highlighted the seriousness of Oregon's highway bridge conditions.

Unprecedented investment in bridges

The Oregon Legislature responded to this crisis in 2003 by enacting the third Oregon Transportation Investment Act, or OTIA III. The \$2.46 billion package included \$1.3 billion for the repair and replacement of bridges on the state highway system. Over 10 years, ODOT's OTIA III State Bridge Delivery Program will repair or replace hundreds of bridges on major corridors throughout Oregon. In addition, OTIA III provides funding to pave and maintain city and county roads, improve and

expand interchanges, add new capacity to Oregon's highway system, and remove freight bottlenecks statewide.

Oregonians have not seen an investment of this magnitude in highway and bridge construction since the state's interstate system was built in the 1950s and 1960s. The sheer size and scope of the bridge program meant that ODOT had to change how it does business. If ODOT took on the work itself, it would require a massive expansion of the agency followed by a dramatic down-sizing once the work was complete. Instead, at the direction of the legislature, the agency hired a private company, Oregon Bridge Delivery Partners, to assist in management of the program. ODOT is making a historic shift from an agency that designs and constructs projects to one that manages the transportation system.

The bridge repair and replacement work is happening in the following five, overlapping stages:

Stage 1, which was completed in October 2006, includes repairs to bridges along the U.S. 97-U.S. 26 corridor from the California border to Portland, and from Bend to Ontario

on U.S. 20. This created alternate north-south and east-west routes that truck drivers and motorists can use when construction starts on hundreds of bridges along I-5 and I-84.

Stage 2 is the largest stage, both in funding and in the number of bridges. It addresses bridges on two major passenger and freight routes in Oregon: I-84 and the northern portion of I-5 from the Washington border to the Eugene-Springfield area.

Stage 3 includes bridges on southern I-5, from Eugene to the California border, and addresses bridge improvements to a significant portion of this major freight and passenger corridor.

Stage 4 will repair or replace bridges on vital freight corridors connecting coastal communities to I-5 and I-84, as well as key north-south routes in Eastern Oregon.

Stage 5 will address routes and connections for rural areas within Eastern and Central Oregon and the coastal corridor south of Coos Bay. These routes are critical to passenger transportation and the transport of agricultural, timber, and aggregate products.

(left) Construction crews lay new internal supports for the Green Springs Bridge on U.S. 97. (right) Construction crews work to replace a bridge on Oregon 58.





(left) Citizens meet at an ODOT open house to discuss bridge program projects in the Columbia River Gorge National Scenic Area. (right) The bridge program sustains an average of 2,500 jobs each year.

Economic impact

The bridge program will have a huge economic impact on Oregon. Over the life of the program, it will sustain an average of 2,500 jobs each year, the majority of which will be filled by Oregonians. One of the key legislative mandates for the bridge program is to stimulate Oregon's economy by sustaining job and contracting opportunities, from project development through final bridge construction.

The economic benefits of the bridge program will ripple out beyond the construction industry to local businesses in communities across Oregon. Related businesses such as materials and equipment suppliers are seeing an increase in trade, as are local hotels, restaurants, grocery stores, and other businesses frequented by construction workers. And, by developing a range of contract sizes, ODOT is giving Oregon contractors — including women, minorities, and emerging small businesses — opportunities to compete more effectively with larger national firms. As these small businesses grow and prosper, so will Oregon.

For example, Staton Industries in Eugene, Ore., owned by Jeanne Staton, was hired to demolish 28 bridges under a \$1.46 million contract. Staton in turn hired four full-time employees and spent \$600,000 on excavators from Triad Machinery in Coburg, Ore. Bridge program projects have also resulted in the purchase of nearly \$4 million in structural steel from Fought Inc., in Tigard, Ore., which enabled the company to hire more than 10 welders.

Through apprenticeship and job training programs, ODOT is also building a skilled, diverse construction workforce that will be an asset for Oregon long after the bridge program is complete. The bridge program is helping train workers for family-wage, sustainable careers.

Involving the public in key decisions

An important part of the bridge program is ensuring that communities affected by construction projects have opportunities to provide meaningful input into the design and construction of bridges. ODOT is asking communities and stakeholders to help make important project decisions and has developed a new collaborative decision-making framework called Context Sensitive and Sustainable Solutions (CS³). CS³ helps preserve Oregon's scenic, aesthetic, historical, cultural, economic, and environmental values while building safe and enduring projects. It is community values shaping a new generation of bridges. CS³ puts communities at the heart of important project decision-making.

Community members in the Columbia River Gorge National Scenic Area helped craft design guidelines for 22 bridge program projects, setting parameters for aesthetic details and design of the bridges in their communities. ODOT made it a priority in this National Scenic Area to work with local citizens and gather input through a series of open houses and workshops. The result will be stronger, safer bridges that meet the needs of motorists and endure in harmony with their surroundings, adding lasting value to the communities they serve.

Maintaining mobility

ODOT is committed to keeping drivers, communities, and transpor-



tation stakeholders informed about construction work as it happens. The agency is working to minimize traffic impacts, to help drivers plan trips using alternate routes, and to keep travelers informed about delays where they exist.

Strong mobility planning is helping ensure that traffic keeps moving relatively smoothly during construction work. The bridge repairs are being grouped into logical bundles along each highway corridor. Bundling results in cost reductions by allowing contractors to achieve an economy of scale in doing design work, ordering materials, and mobilizing equipment and resources. It also helps traffic engineers to make better plans to keep traffic moving during construction.

Roads and bridges connect communities and provide the links that keep goods moving. By the time the bridge program is complete, Oregon's highway system will be ready to support the state's growing economy for decades into the future. ▼

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