



The Madras PIONEER

ODOT recycles materials from BNSF Bridge

Materials from the Madras Burlington Northern Santa Fe Bridge project are already seeing new life in other projects around the state thanks to recycling efforts by the Oregon Department of Transportation.

ODOT has developed a unique series of initiatives that encourage recycling on all levels of its OTIA III State Bridge Delivery Program.

The bridge program, a statewide effort to repair or replace hundreds of aging bridges in Oregon over the next decade, is the largest state investment in Oregon highways and bridges since the interstate system was built in the 1950s and '60s.

The widespread construction creates new jobs and encourages economic growth throughout Oregon. Through these initiatives, contractors are reusing and recycling products used for bridge construction and repair. The agency's commitment to recycling saves costs and time, and protects needed resources.

In Madras, ODOT recycled more than 720 tons of materials from the Burlington Northern Santa Fe Bridge north of town.

On a project in Klamath Falls, ODOT is recycling more than 10,000 tons of debris from two bridges slated for replacement. On U.S. 20 between Bend and Ontario, the agency is reusing asphalt to pave bridge approaches.

From the Madras project, almost 580 tons of concrete was delivered to Cinder Butte Rock in Redmond for crushing and reuse, and more than 140 tons of steel was delivered to Schnitzer Steel in Eugene for resmelting.

Although the opening of a new bridge or the use of an exciting new technology in bridge construction may be an impressive measure of the success of the bridge program, the advancements in recycling are equally important.

By encouraging recycling, the agency is demonstrating its dedication to positive environmental stewardship. Across the state, ODOT and its contractor partners are taking things that are old, tired and wasted, and making them new and useful again.

"ODOT has always encour-

aged recycling, but with the bridge program we have improved it by requiring that contractors recycle wherever they can," said Steve Narkeiwicz, ODOT's consultant program manager. "Recycle initiatives and thresholds are built into the contract right from the start. We simply say, 'You have to meet these recycling goals; it's your job to tell us how you are going to do it.' We've created a synergy between the agency and its contractors and we increased our efficiency by doing it. ODOT should do more of this."

Staton Companies of Eugene won contracts to demolish the California Avenue and Green Springs Drive bridges in Klamath Falls and the BSNF Bridge in Madras to make way for new bridges along the vital

U.S. Highway 97/26 corridor.

Under its contract, Staton has salvaged all the concrete aggregate and rebar materials from the demolition activities. The concrete and rebar are taken back to the company's central plant and recycled.

Besides the materials taken from the Madras bridge, Staton took 7,227 tons of concrete aggregate materials from the California Avenue and Green Springs Drive bridges in Klamath Falls.

The materials were crushed into 1-inch particles and used as gravel. Five hundred tons of the gravel were then reused on the Klamath Falls site as fill and to pave an approach road.

The rebar was cleaned of all the concrete, melted down and resold. With steel prices on a

steady rise over the past decade, scrap metal — particularly the grade used in rebar — is a valuable commodity.

In total, Staton recycled about 450 tons of scrap metal from the Green Springs Drive Bridge, and 360 tons from the California Avenue Bridge.

"These demolished bridges were 100 percent recycled," said Ron Richey, estimator and supervisor for Staton Companies. "Simply crunching, loading and hauling don't save money anymore. In fact, the cost of hauling the aggregate and steel to a landfill is \$50 a ton, not including the cost and additional pollution of trucking it to a landfill site. Sorting and recycling is truly where the value is. And it's ultimately better for the environment to reuse source materials or find other alternatives to dumping the debris in a landfill."

Like many of the advancements being used in the bridge program, ODOT's recycling standards began with a good idea that was brought to life by collaboration and then put to use in the field.

ODOT developed its recycling performance standards by working with contractors, recycling firms and regulatory agencies such as the Department of Environmental Quality.

The new standards are in wide use on the bridge program. They serve as a baseline for construction activity across the state, codifying the processes that each contractor must use on ODOT projects.

The standards cover the recycling of everything from water and metal to asphalt and wood. The model that the bridge program provides encourages recycling on future projects around the state.

"We are committed to recycling as much as we can," said Ray Mabey, OTIA III Bridge and Design-Build deputy program manager. "By developing a set of guidelines that encourage reuse and recycling, and enforcing those standards through onsite inspections, we are practicing environmental stewardship programwide."

The BNSF Bridge Project is expected to be completed late this month or in early April.

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Staton Companies supervisor