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Old shingles make new roads

Bend company to work with local firm to recycle asphalt roofing material

By Beth Casper
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Thousands of tons of roofing shingles will find their way into asphalt pavement now that a recycling operation has opened in Salem.

Bend-based Hooker Creek Companies has joined with River Bend Sand and Gravel on Lancaster Drive SE in Salem to accept asphalt roofing shingles from three manufacturers in Portland.

The recycling operation is the first of its kind in Oregon, according to the Oregon Department of Environmental Quality.

Portland's manufacturers generate 15,000 to 20,000 tons of shingle waste per year — trimmings from cutting shingles and sheets of "factory seconds."

The shingles will be shredded and fed into asphalt plants in Salem and Bend. The asphalt, which will contain about 5 percent shingles, is used to pave driveways and some roads.

"It is something we think is a good use for waste shingles," said Brian Fuller, the Oregon Department of Environmental Quality's manager for solid waste programs in the western region.

"Usually they are landfilled. Anytime we can get a higher and better use versus landfilling, that's something we would like to see happen."

Asphalt is made of oil and aggregate. Recycling this material is fairly standard.

Old asphalt is currently recycled into new asphalt — Hooker Creek Companies, for example, recycled 70,000 tons of old asphalt last year.

The Oregon Department of Transportation uses about 30 percent recycled asphalt in its pavement.

Using asphalt shingles is not standard, and the practice has yet to be approved for use by the transportation department.

Todd Scholz at Oregon State University's school of civil and construction engineering is studying the impact of recycling shingles into pavement for the transportation department.

"The asphalt used to manufacture shingles is a lot harder than what is put into roads," Scholz said. "It makes the mix stiffer, depending on how much you use. At really cold temperatures or springtime temperatures, you don't want the asphalt to be too hard — otherwise it cracks."

Part of Scholz' research will include demonstration projects on Oregon roads, although the locations of those projects have not been determined, said Dave Thompson of the Oregon Department of Transportation.

Dave Vogt, the construction division manager for Hooker Creek Companies, said he is working to get the state's approval for shingle recycling in pavement.

His company used about 130,000 tons of asphalt on state highway paving projects last year but uses almost double that amount each year — for work including residential and commercial driveways and parking lots.

Vogt hopes to expand the shingle operation to include asphalt shingles torn from roofs. That process is more complicated because shingles from roofs tend to be contaminated with tar paper, nails and wood debris.

Part of Scholz' study includes looking at torn-off shingles, which nationally make up an estimated 11 million tons per year of landfill waste.

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Additional Facts

Recycling mandate

Rep. Mike Schaufler, D-Happy Valley, introduced House Bill 2733, which would have required the Oregon Department of Transportation to include 5 percent asphalt shingles in asphalt pavement mix for construction and maintenance of state highways. It did not pass out of the House transportation committee. In lieu of the bill's passage, the transportation department is investigating the impacts of recycling shingles in asphalt pavement.



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Dave Vogt, of Hooker Creek Companies in Bend, is set to open an asphalt shingle recycling center next to River Bend Sand and Gravel on Lancaster Drive SE. The recycled material will be used in private paving and will hopefully be embraced by the state for use in road construction.