

# Promising results seen in King County paving project using recycled shingles

*Enumclaw Plateau roadway paved with hot mix asphalt containing recycled asphalt shingles in near-perfect condition*

## Kris Beatty

LinkUp Program Manager  
King County Solid Waste Division  
Seattle, Washington

Every year, an estimated 23,000 tons of tear-off asphalt shingles from roofing projects in King County go to a landfill.

However, a one-year-old pilot project involving local and state agencies that recycles tear-off shingles for use in hot mix asphalt for road paving is showing great promise. Now, officials hope to see this former waste product put to use as the valuable resource it is.

Using recycled asphalt shingles in asphalt paving has the potential to reduce the costs of paving due to the high quantity of oil in the shingles. By recapturing the oil, less new oil needs to be purchased.

The Shingles in Paving Demonstration Project is the first in the state to use recycled asphalt shingles in HMA to pave a public road. Eleven other states

already use recycled asphalt shingles in asphalt pavements.

In September 2009, a two-mile-long stretch of Southeast 416th Street near Enumclaw was overlaid with a two-inch-thick layer of asphalt paving materials, in test sections with and without recycled asphalt shingles.

The paving demonstration project is a collaboration between King County Solid Waste Division's LinkUp Program, King County Road Services Division, Washington State Department of Transportation and Seattle Public Utilities.

The LinkUp program identified asphalt paving applications as the end use for recycled asphalt shingles with the greatest potential, and set out to facilitate development of local markets for the material.

"Recycling asphalt shingles into a useful material achieves our goal of zero waste of resources, saves room in landfills and can save agencies money, too," said Kevin Kiernan, Director of the King County Solid Waste Division.

Staff from King County and the Washington State Department of Transportation recently surveyed the condition of the test sections of the roadway.

"We are pleased to report that the pavement with recycled asphalt shingles is performing as well as the test sections with traditional asphalt paving," said Paulette Norman, Interim



more than a bridge,  
it's history revived.

To restore the iconic Bridge of Lions in historic St. Augustine, RS&H designed an innovative interior framing system and new foundation, preserving the bridge's original defining elements. A roaring restoration and a lasting legacy for "The Nation's Oldest City."

planning design | environmental program management | [www.rsandh.com](http://www.rsandh.com) | **RS&H**  
IMPROVING YOUR WORLD



**Whole asphalt shingles from tear-off roofing which will be ground and screened for use in hot mix asphalt pavement**

Director of the King County Road Services Division.

“Recycling asphalt shingles not only benefits the environment, but can have positive economic and job cost impacts as well.”

The King County Materials Laboratory performed pavement condition surveys by walking the site and documenting any distressed areas. Additional pavement condition surveys were conducted by the Washington State Department of Transportation using a distress data collection van that provided similar results.

An advisory group of representatives from the recycling and paving industries and solid waste, transportation and regulatory agencies was brought together to provide input and help guide the direction of the project.

“This project is important to the paving industry in our state,” said Tom Gaetz with the Washington Asphalt Paving Association. “It is consistent with our commitment to sustainability and green technologies. Some of our

members are already using recycled asphalt shingles in paving, and others are eager to learn more.

“The timing of this project couldn’t be better,” Gaetz said. “Our industry is right now engaged in developing specifications to increase the use of recycled asphalt materials in asphalt paving—all part of our industry’s commitment to deliver the greatest value to our clients and the public.”

King County will continue to monitor the structural performance of the demonstration pavement through 2012, at which time it will consider recommendations for the continued use of recycled asphalt shingles on public roadways in the county.

In the meantime, LinkUp is continuing to develop specifications and guidance to support the use of recycled asphalt shingles in asphalt paving and coordinate with other regional and national efforts to increase shingle recycling. Information on LinkUp is available at [www.kingcounty.gov/linkup](http://www.kingcounty.gov/linkup).

King County Solid Waste Division is also considering using asphalt paving

containing recycled asphalt shingles at one or more of its transfer station and landfill facilities.

Kris Beatty can be reached at (206) 296-3740 or [kris.beatty@kingcounty.gov](mailto:kris.beatty@kingcounty.gov).



## Order Custom Bulk Editorial Reprints

Now that you have been featured in the *APWA Reporter*, why not leverage this opportunity to promote your product or service with custom reprints?

**Call our reprint department at (800) 259-0470 for complete details.**

## WORKZONE

### Senior Design/Construction Project Managers Norfolk, VA

The City of Norfolk Public Works seeks two Senior Design/Construction Project Managers. These positions are responsible for direct oversight of new construction of Main Library (140,000 sf) and Consolidated Courts Complex (315,000 sf), both large-scale, complex, and high-visibility projects. These positions will also provide support to the Construction Bureau, which manages the City’s capital improvement projects. For more details and to apply, please see [www.norfolk.gov](http://www.norfolk.gov).

