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No sinking feeling: New approach to repaving expected to keep roads smooth, stable

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Had Charleston County done a routine job of repaving Bee Street and Courtenay Drive, each would become bumpy again, perhaps within just a few years.



Photo by Robert Behre

Charleston County Council Chairman Teddie Pryor said the improvements to Bee Street and Courtenay Drive in Charleston (in the background) 'was no simple task.' The \$4.9 million project involved a new lightweight material to replace thin clay soils.

That's because these streets, which serve some of the Lowcountry's most important hospitals, were built on filled land.

The silty clays in this part of peninsular Charleston extend down almost 70 feet and give the surface little stability. Area parking lots regularly droop away from neighboring buildings supported by pilings.

The more that streets or parking lots are routinely repaved, the more weight they carry. The more weight they carry, the faster they sink.

So the county found a different way.

When local officials gathered Monday morning to mark the completion of the \$4.9 million Bee Street and Courtenay Drive project, they also celebrated one of the first local uses of a new fill material that promises to help solve street problems on other Lowcountry roads built mostly on fill.

The Bee-Courtenay work involved clearing off about three to four feet of soil and replacing it

with a lightweight material, a clay that has been fired in a kiln so it becomes durable, stable, free draining -- and strong enough to support heavy trucks.

Devri DeToma, an engineer with the county, said the lightweight fill "looks like tiny gravel, pretty much." The material was imported by the truckloads from Big River Industries, a Georgia company.

Paul Capps, project manager with Gulfstream Construction, said the new material costs about five to six times more than conventional dirt or sand fill but should help the streets last much longer.

"It's sort of an experiment," he said.

The project also included drainage improvements, new sidewalks and new traffic signals.

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