

Transportation Division
City of Columbus
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A Plan for Non-residential Pavement Design

The Transportation Division concluded a five-year effort in 2006 to update its residential pavement design policy. The effort has resulted in a toolbox of pavement design choices available to developers, with the intent of allowing market forces to influence cost-effective pavement type choices. The choice-based policy is founded on a performance expectation by the City, which was crafted from research and analysis performed by Resource International, Inc., along with input from construction industry representatives.

The City was focused on residential pavement design as a component of a larger strategy to reduce the cost of housing in the City of Columbus. The City is now interested in reducing the cost of construction of its non-residential streets, most of which are built as city-funded capital improvement projects. The premise is to conduct a similar, but more abbreviated process to update design standards for non-residential streets, building on the work already conducted for residential streets. To this end, the following steps are planned:

Step One: *Conduct research and analysis*

The Transportation Division will continue in 2007 its policy of testing new pavement products and techniques on its capital improvement projects. The City received a grant from ODNR to test recycled rubber tire-based asphalt pavement, which will be used to fund a roadway resurfacing in Olde Town East summer, 2007. In addition, the City will be conducting a limited test of porous concrete pavement or gutter fall, 2007. The City has also been approached by industry representatives proposing the use of progressive recycled paving products, including carpet fiber-enhanced concrete. Research and dialogue continues with an expectation of demonstration projects within the next two years. The original alternate paving product, Roller Compacted Concrete (RCC) was approved for wide use in residential streets in 2006. The City will be allowing it as a bid alternate on two non-residential capital improvement projects in 2007; Souder Avenue in Franklinton and Henderson Road in Clintonville. Souder Avenue will be bid late spring, 2007 with bidding for Henderson Road to be conducted fourth quarter, 2007. RCC will be included in the analysis and research conducted in Step One. Final disposition of RCC as a permanent paving alternate product will be made at the conclusion of Step One.

Step Two: *Conduct Interim Testing of Alternate Paving Products*

Legislation is prepared for May City Council adoption for a contract with Resource International, Inc. for a study to be completed in 2007, which will provide us the technical basis for crafting changes to our non-residential pavement design policy for the 2008 construction season. The study effort will largely mimic the process followed for residential pavement design, which will include policy research of comparable cities, including ODOT local and state agencies. The effort will also include several meetings with various construction industry representatives. The deliverable from this effort will again mimic the residential policy, which offers a menu of pavement choices, each performing in an equivalent manner with normal maintenance over the life of the roadway.