Triangle Expressway

The proposed Triangle Expressway is comprised of three sections, namely the Triangle Parkway, the Northern Wake Expressway and the Western Wake Parkway. The 19 mile toll-way will connect Holly Springs at NC 55 in the south to I-40 near Durham in the north.

Fuel Efficiency & Green Highways

Highway agencies can realize significant economic and environmental benefits for the public during highway improvements with concrete pavements. Concrete’s low rolling resistance reduces truck fuel consumption rates compared to asphalt surfaces. These reduced consumption rates translate into direct dollar savings as well as reductions in various engine pollutants.

Results of an analysis for the Triangle Expressway (shown on right) present a compelling case for the concrete pavements. The charts show a range of potential annual fuel savings and reductions in pollutant emissions that could be achieved if the Triangle Expressway was paved with concrete rather than asphalt. The case study is based on results from a study performed by the National Research Council of Canada (NRC) - Centre for Surface Transportation Technology (CSTT) in January 2006. The research concluded that trucks use on average 3.85% less fuel on rigid concrete pavements when compared to flexible asphalt pavements, due to concrete’s lower rolling resistance.

Sources
EPA 420-F-05-001, February 2005
NRC-Canada, CSTT-HVC-TR-068, Taylor and Patten, January 2006