A 3850’ long trial segment of Roller Compacted Concrete (RCC) was placed as outside shoulder on INDOT project IR-30847, SR 25, near Delphi, IN in August 2013. Interest in using RCC for industrial and local transportation pavement applications has been growing since the first large-scale industrial RCC project was built in 2005 in southeastern Indiana. SR 25, part of the “Hoosier Heartland Industrial Corridor Highway” provided an opportunity to place RCC on the outside shoulder of a rural four-lane highway.

E&B Paving, mainline paving contractor for the SR 25 contract worked with INDOT to modify the original scope of work in coordination with project team members. “Guide Specifications” based on Portland Cement Association (PCA) and National Concrete Pavement Technology Center (CPTC) guidelines were developed for the RCC mix and process. In addition, the Indiana Chapter ACPA developed and hosted an educational construction open house attended by nearly 100 INDOT engineers, contractors, consultants, and suppliers as the RCC shoulder was being placed.

Purdue University’s Joint Transportation Research Program (JTRP) team captured the RCC paving process on digital media, using time-lapse and conventional video methods from various perspectives for further study, analysis, and educational benefit. (www.purdue.edu/jtrp)
Presentation & Site Observation

Open house attendees gathered at a nearby church for a technical briefing on RCC design, mix production, and construction considerations by industry experts. They were then directed to the paving site to watch E&B Paving’s Roller Pave Division place the RCC on the north-bound outside shoulder of SR 25. Attendees included over 45 INDOT personnel with another 45 individuals representing local government, consulting and geotechnical firms, contractors, cement and ready mix producers, as well as equipment suppliers.

Variable Depth RCC, Joint Spacing & Treatment

For future analysis, RCC shoulder was placed at 5”, 6”, and 7” thicknesses within the trial. In addition, variable joint spacing was applied with some joints widened and sealed and some left unsealed after the first saw cut.

Further analysis will be performed by INDOT with involvement by scientific, institutional and industry partners as innovative improvements to transportation infrastructure are sought.

Project Team Members and Technical contributors:

**INDOT** : Project Personnel, LaPorte District (IR-30847 ); Central Office Pavement Division; Materials & Test Division

**FHWA**: Indiana Division, Pavements and Materials Engineering

**Project Team**: Walsh Construction, E&B Paving, Brooks Construction, Patriot Engineering, IMI, Buzzi Cement

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