



CP Road Map E-News June 2010

The **CP Road Map E-News** is the newsletter of the [Long-Term Plan for Concrete Pavement Research and Technology \(CP Road Map\)](#), a national research plan developed and jointly implemented by the concrete pavement stakeholder community. To find out more about the CP Road Map, or to get involved, contact Dale Harrington, dharrington@snyder-associates.com, 515-964-2020.

News from the Road

News from the Road highlights research around the country that is helping the concrete pavement community meet the research objectives outlined in the CP Road Map.

North Dakota DOT reports on unsealed joints in concrete pavements

In 2009, the North Dakota Department of Transportation (DOT) conducted an experimental study on the practice of unsealed joints in new concrete pavements. The study evaluated the overall cost effectiveness, reliability, and durability of the joint designs and concluded that sealed joints are the better option for that state.

To view the North Dakota DOT report, [click here](#).

This project is addressing research needs identified in [CP Road Map Track 6: Innovative Concrete Pavement Joint Design, Materials, and Construction](#) and [Track 10: Concrete Pavement Performance](#).



Louisiana DOT investigates surface resistivity device

A Louisiana DOT project is investigating the use of a surface resistivity device as an indicator of concrete's ability to resist chloride ion penetration. Surface resistivity measurements may provide an alternative to rapid chloride permeability testing for quality assurance and acceptance. Comparative testing is being conducted on concrete from the Caminada Bay Bridge project in Grand Isle, Louisiana.

For more details on the Louisiana DOT project, [click here](#).

This research addresses needs identified in [CP Road Map Track 10: Concrete Pavement Performance](#).

Research evaluates engineered cementitious composites (ECC)

A joint research effort at the University of Michigan and Stanford University suggests that engineered cementitious composites (ECC) have potential as a sustainable concrete pavement overlay material. This work will be presented by Victor Li (Michigan) and Michael Lepech (Stanford) in September 2010 at the [International Conference on Sustainable Concrete Pavements](#).

At the University of Michigan, Li has been very active in the research and development of ECC for possible future bridge and pavement applications. For more information on this work, [click here](#).



Research and development work pertaining to ECC can be categorized under [CP Road Map Track 12: Advanced Concrete Pavement Materials](#) and [Track 13: Concrete Pavement Sustainability](#).

University of California study evaluates accuracy and feasibility of maturity method

The Partnered Pavement Research Center at the University of California recently released a report on evaluating the maturity method for flexural strength estimation in concrete pavements. This project was in response to Caltrans inquiries about the accuracy and feasibility of the maturity method and its applicability to mixtures with special cements and admixtures, including fast-setting hydraulic cement concrete. The report concludes that while the maturity method appears beneficial, some flexural strength testing is still recommended.

To read a summary of this research, [click here](#).

This research is meeting a need identified in [CP Road Map Track 3: High-Speed Nondestructive Testing and Intelligent Construction Systems](#).

Updates from the States: Michigan

Concrete pavement research and technology development in Michigan is a joint effort of the Michigan Department of Transportation (MDOT), the Michigan Concrete Association (MCA), the University of Michigan, Michigan Technological University (MTU), Michigan State University (MSU), and Michigan research consultants.

Ongoing research efforts in Michigan include investigating the use of sustainable materials for recycled concrete pavements, methods for reducing the carbon foot print of portland cement concrete, and the use of recycled glass as a supplementary cementitious material.

Recently completed research has focused on characterizing aggregate properties, improving pavement durability for long-term performance, and calibrating variables for use in mechanistic-empirical pavement design.

[Read on for more details on Michigan's research efforts.](#)

Newsletter archives

- [April 2010](#)
- [May 2010](#)

Newsletter staff

- [Dale Harrington](#), Snyder and Associates, Program Manager
- [Rob Rasmussen](#), The Transtec Group, Program Specialist
- [Sabrina Garber](#), The Transtec Group, Program Specialist
- [Sabrina Shields-Cook](#), National Concrete Pavement Technology Center, Editor

