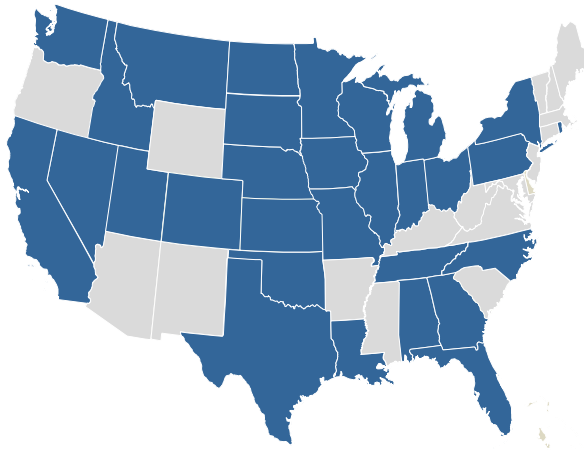


## Highlights of the Spring 2016 National Concrete Consortium

Columbus, Ohio – April 26–28, 2016

The 2½-day spring meeting of the National Concrete Consortium (NCC) brought together the expertise and experience of 160 attendees from FHWA, 28 DOTs (62 individuals), the Illinois Tollway, academia, and industry in an excellent event focused on improving concrete performance and structural concrete applications. This particular meeting was preceded by a special 125<sup>th</sup> anniversary commemoration of the oldest concrete street in America in Bellefontaine, Ohio. This optional activity, organized by the Task Force on Preservation of Historical Concrete Pavement Artifacts, was well attended. Participants enjoyed an overview of the history and technical advancements in concrete paving in the United States, followed by a site visit.



The meeting agenda and all technical presentations are available on the NCC website ([www.cptechcenter.org/ncc](http://www.cptechcenter.org/ncc)). Meeting highlights include the following:

- The DOTs held a meeting over breakfast that included discussions about
  - Prioritizing future technical products desired under the TPF-5(313)
  - Refreshing the CP Road Map to ensure alignment with and technical value for the DOTs as national research and technology needs are identified
- The full NCC meeting began with a morning session on performance engineered mixtures (PEM). The goal of the PEM effort is to advance how concrete mixtures are specified, designed, and field-controlled based on engineering properties that directly relate to performance in the field. Advancements in testing technologies now make it possible to engineer concrete mixtures for durable performance in pavements and structural applications and to field-verify the concrete to ensure the desired performance. In addition to hearing the DOTs' experiences with running a new suite of testing equipment, meeting participants heard updates by FHWA on integration of this effort with the PAVE SPEC effort and were given an opportunity to comment on the draft standard of practice that is under development.

- Maria Masten provided a summary of the TTCC states' bridge surveys. In addition, Caltrans, Louisiana TRC, and Washington DOT gave updates on their high performance concrete bridge experiences.
- Dr. David Darwin, University of Kansas, presented his ongoing work on the investigation and mitigation of bridge deck cracking and shared recommended practices. Dr. Darwin offered to assist states with mapping and analyzing cracking in their bridge decks.
- Dr. Tyler Ley, Oklahoma State University, presented on a promising new bridge deck curing material made out of recycled paper. Several bridges in Oklahoma have been cured using this material, and he invited other interested states to contact him.
- The Indiana DOT, Dr. Jason Weiss, and the Illinois Tollway presented their work on using internal curing for bridges to mitigate deck cracking and improve durability of the decks.
- John Staton, Michigan DOT, and Dan DeGraaf, Michigan Concrete Association, led a panel discussion on the implementation issues related to HPC.
- Charles Hanskat, executive director of the American Shotcrete Association, gave an excellent introduction to shotcrete applications, followed by Dan Miller sharing project experience in Ohio.
- Dr. Nizar Lajnef, Michigan State University, presented his work on development of self-powered sensors for concrete.
- Dr. Sherif El-Tawil, University of Michigan, gave a presentation on the development of non-proprietary UHPC.
- Dan Mendel, Ohio DOT, provided a presentation on the Jeremiah Morrow Bridge project. A technical tour on Thursday morning included a site visit to the Jeremiah Morrow Bridge, which is the tallest bridge in Ohio. The structure is a balanced cantilever cast-in-place post-tensioned structure due to be completed later this year, the culmination of a six-year, \$88 million project that included the removal of existing twin bridges. A special feature of the design is to allow for the expansion of an additional lane in each direction in the future to address growing capacity needs. A special thanks to Ohio DOT for organizing and planning a great tour!
- Election of new Executive Board members was held, and the following members now serve on the Executive Board:

Name	Organization	E-Mail	Representing	Term Expires
Neal Fannin	Pennsylvania DOT	nfannin@pa.gov	AASHTO Region 1-2	2017
Nilesh Surti	North Carolina DOT	nsurti@ncdot.gov	AASHTO Region 1-2	2018
Tommy Nantung	Indiana DOT	tnantung@indot.IN.gov	AASHTO Region 3	2017
Dan Miller	Ohio DOT	Daniel.Miller@dot.ohio.gov	AASHTO Region 3	2018
Mehdi Parvini	California DOT	mehdi.parvini@dot.ca.gov	AASHTO Region 4	2017
Bryan Lee	Utah DOT	bryanlee@utah.gov	AASHTO Region 4	2018
Maria Masten	Minnesota DOT	maria.masten@state.mn.us	Chair	2017
Mike Byers	Indiana ACPA	mbyers@pavement.com	Contractor	2017
Matt Ross	CTS Cement	Mross15@kc.rr.com	Supplier	2017
Tyler Ley	OK State University	tyler.ley@okstate.edu	Academia	2018
Jim Mack	CEMEX	jamesw.mack@cemex.com	At-Large	2018
Gina Ahlstrom	FHWA	Gina.Ahlstrom@dot.gov	FHWA ex-officio	
Peter Taylor	CP Tech Center	ptaylor@iastate.edu	CP Tech Center	

A special thanks to outgoing board members (Bouzid Choubane, Florida; Steve Gillen, Illinois Tollway; and Darin Hodges, S Dakota) for your effort in making the NCC programs of value to all the participants.

A final note about upcoming meetings: the fall 2016 meeting of the NCC will be held in conjunction with the International Conference on Concrete Pavements (ICCP) in San Antonio, Texas, on August 29 – September 1, 2016. The 2017 NCC meetings will be held in Utah in the spring and in Minnesota in the fall.