

# 2010 Concrete Bridge Conference

## Detailed Conference Agenda

Tuesday, February 23, 2010	
8:00 am to 12:00 pm	<b>FHWA High Performance Concrete Technology Deployment Team (HPC TDT) Meeting (<i>Open Meeting</i>)</b>
12:00 pm to 1:00 pm	<b>Break for Lunch</b>
1:00 pm to 5:00 pm	<b>FHWA High Performance Concrete Technical Working Group (HPC TWG) Meeting (<i>Open Meeting</i>)</b>
Wednesday, February 24, 2010	
7:00 am to 6:00 pm	<b>Registration Open in Exhibit Hall</b>
8:00 am to 12:00 pm	<b>AASHTO T-10 Concrete Design Committee Meeting (<i>Open Meeting</i>)</b>
10:00 am to 4:00 pm	<b>Exhibit Set-Up in Exhibit Hall</b>
12:00 pm to 1:00 pm	<b>Break for Lunch</b>
1:00 pm to 5:00 pm	<b>AASHTO T-10 Concrete Design Committee Meeting (<i>Open Meeting</i>)</b>
1:00 pm to 5:00 pm	<b>Concrete Bridge Tour, In Conjunction With Arizona Department of Transportation (<i>Restricted to First 45 Who Register, Separate Fee</i>)</b>
6:00 pm to 7:30 pm	<b>Welcome Reception in Exhibit Hall (Included in Registration)</b>
Thursday, February 25, 2010	
7:00 am to 8:00 am	<b>Continental Breakfast in Exhibit Hall (Included in Registration)</b>
7:00 am to 5:00 pm	<b>Registration Open in Exhibit Hall</b>
7:00 am to 5:30 pm	<b>Exhibits Open in Exhibit Hall</b>
8:00 am to 10:00 am	<b>Opening Session Keynote Addresses</b>
10:00 am to 10:25 am	<b>Coffee Break in Exhibit Hall</b>

10:30 am to 12:00 pm	<b>Session #2: Durable and Innovative Bridge Decks</b>
10:30 am – 10:50 am	“Effects of Construction Procedures and Material Properties on Low-Cracking High Performance Concrete (LC-HPC) Bridge Decks” Heather McLeod, JoAnn Browning, David Darwin, University of Kansas; Will Lindquist, Trine University
10:50 am – 11:10 am	“Hawaii Transportation Department High Performance Bridge Deck Mix” David Fujiwara, Harold Hamada, KSF, Inc.; Charles Welker, Miracon Technologies, Inc.
11:10 am – 11:30 am	“The History and Benefits of Prefabricated Grid Reinforced Concrete Decks” Philip Gase, The D. S. Brown Company; Mark Kaczinski, Bridge Grid Flooring Manufacturers Association
11:30 am – 11:50 am	“GFRP Reinforced Precast Lightweight Concrete Bridge Deck Panels” Chris P. Pantelides, Brandon Besser, and Ruifen Liu, University of Utah
10:30 am to 12:00 pm	<b>Session #3: Innovative Concrete Bridges</b>
10:30 am – 10:50 am	“Field and Laboratory Study of Precast Composite Slab Span System (PCSSS)” Catherine French, Carol Shield and David Klaseus, University of Minnesota; Matthew Smith, Meyer Borgman and Johnson; Whitney Eriksson, Barr Engineers
10:50 am – 11:10 am	“Innovative Applications of Precast Concrete on Complex Long-Span Bridge Projects in Colorado” Gregg Reese, Summit Engineering Group, Inc.
11:10 am – 11:30 am	“Design Solutions for a Highly Skewed Bridge: The Paseo Boulevard Bridge” Thaddeus Kosmicki and Joanne Zuo, Parsons
11:30 am – 11:50 am	“Case Study: Folsom Lake Crossing” Jeff Thomure, CH2M Hill
10:30 am to 12:00 pm	<b>Session #4: Lightweight Concrete for Bridges (Part One)</b>
10:30 am – 10:50 am	“Cracking Tendency of Lightweight Concrete in Bridge Deck Applications” Benjamin Byard, Anton Schindler, and Robert Barnes, Auburn University
10:50 am – 11:10 am	“Lightweight High Performance Concrete in Two Bridges on Route 33 in Virginia” Celik Ozyildirim, Virginia Transportation Research Council, Virginia Department of Transportation; Lou Triandafilou, Federal Highway Administration
11:10 am – 11:30 am	“FHWA Research Program on Lightweight High-Performance Concrete – Development Length of Prestressing Strand” Gary Greene, Professional Service Industries, Inc.; Benjamin Graybeal, Federal Highway Administration
11:30 am – 11:50 am	“Design Issues Involving Lightweight Concrete: A Current Perspective” Karl F. Meyer, United States Military Academy at West Point

12:00 pm to 1:30 pm	<b>Lunch In Exhibit Hall (Included in Registration)</b>
1:30 pm to 3:00 pm	<b>Session #5: Ultra High Performance Concrete (UHPC)</b>
1:30 pm – 1:50 pm	“Innovative Field Cast UHPC Joints for Precast Bridge Decks – Design, Prototype Testing and Construction” Vic Perry, Lafarge North America, Inc.; Mathew Royce, New York Department of Transportation
1:50 pm – 2:10 pm	“UHPC Waffle Slab Project for Wapello County, Iowa” Dean Bierwagen, Ahmad Abu-Hawash, Iowa DOT; Brian Moore, Wapello County, Iowa; John Heimann, Coreslab Structures; Benjamin Graybeal, Federal Highway Administration
2:10 pm – 2:30 pm	“Tube-Based Composite Deck System for Moveable Bridges” Muhammad Azhar Saleem and Amir Mirmiran, Florida Atlantic University; Jun Xia and Kevin Mackie, University of Central Florida
2:30 pm – 2:50 pm	“Behavior of Ultra-High Performance Concrete Connections Between Precast Bridge Deck Elements” Benjamin Graybeal, Federal Highway Administration
1:30 pm to 3:00 pm	<b>Session #6: Innovative Structural Design and Construction</b>
1:30 pm – 1:50 pm	“Innovative Bridge Design and Construction in Washington State” Bijan Khaleghi and Jugesh Kapur, Washington State Department of Transportation
1:50 pm – 2:10 pm	“Evaluation of the LRFD Bridge Design Specifications Method for Estimating Prestress Losses” Brian Swartz and Andrew Scanlon, Pennsylvania State University; Andrea Schokker, University of Minnesota at Duluth
2:10 pm – 2:30 pm	“Shear Design of Prestressed Concrete Beams: ACI 318 and AASHTO LRFD” Alejandro Avendano and Oguzhan Bayrak, University of Texas at Austin
2:30 pm – 2:50 pm	“Comprehensive Quality Systems: A Smart Choice for Bridges” William Nickas, Precast/Prestressed Concrete Institute
1:30 pm to 3:00 pm	<b>Session #7: Mitigating Alkali Silica Reactivity (ASR) in Structures Workshop (Part One)</b>
1:30 pm – 2:00 pm	“Historical Developments in ASR Requirements” Paul Tennis, Portland Cement Association
2:00 pm – 2:30 pm	“Controlling ASR in U.S. Army Corps of Engineers Projects” Toy S. Poole, U. S. Army Corps of Engineers
2:30 pm – 3:00 pm	“ASR Mitigation” Thano Drimalas, University of Texas at Austin

3:00 pm to 3:25 pm	<b>Coffee Break in Exhibit Hall</b>
3:30 pm to 5:00 pm	<b>Session #8: Corrosion Protection Systems for Durable Bridge Decks</b>
3:30 pm – 4:00 pm	“Performance of Decks Containing Epoxy-Coated Reinforcing Bars” David McDonald, Epoxy Interest Group of Concrete Reinforcing Steel Institute (CRSI)
4:00 pm – 4:30 pm	“Conductive Concrete Overlays for Cathodic Protection” Sherif Yehia, American University of Sharjah, United Arab Emirates; Joshua Host, Consultant
4:30 pm – 5:00 pm	“Multiple Corrosion Protection Systems for Reinforced Concrete Bridge Components: Laboratory and Field Tests” David Darwin, JoAnn Browning and Matthew O’Reilly, University of Kansas; Guohui Guo, Haris Engineering, Inc.
3:30 pm to 5:00 pm	<b>Session #9: Non-Destructive Evaluation (NDE) of Concrete Bridge Components</b>
3:30 pm – 3:50 pm	“Non Destructive Detection of Fractures in Prestressed and Post-tensioned Cables in Bridges” Garth Fallis, Chris Ball and Matt Peeler, Vector Corrosion Technologies
3:50 pm – 4:10 pm	“Preservation of Prestressed Structures: Using Correct Tools to Save Costs” Siva Venugopalan, Siva Corrosion Services, Inc.
4:10 pm – 4:30 pm	“Periodic NDE for Preservation of Concrete Structures” Frank Jalinoos and Ralf Arndt, Federal Highway Administration; Dryver Huston and Jianhong Cui, University of Vermont
4:30 pm – 4:50 pm	“The FHWA Long Term Bridge Performance Program” Hamid Ghasemi, Federal Highway Administration; John Hooks, Highway Research &Development Services
3:30 pm to 5:00 pm	<b>Session #10: Mitigating Alkali Silica Reactivity in Structures Workshop, (Part Two)</b>
3:30 pm – 4:00 pm	“ASR in Texas” Brian Merrill, Texas Department of Transportation
4:00 pm – 4:30 pm	“Aggravating Silly Reality: ASR From A Consultant’s Perspective” Thomas Van Dam, Applied Pavements Technology, Inc.
4:30 pm – 5:00 pm	The Audience Asks The Experts: Panel Discussion Paul Tennis, Portland Cement Association; Toy S. Poole, U. S. Army Corps of Engineers; Thano Drimalas, University of Texas at Austin; Brian Merrill, Texas Department of Transportation; Thomas Van Dam, Applied Pavements Technology, Inc.;
5:45 pm to 7:30 pm	<b>2010 Concrete Bridge Awards Reception (Included in Registration)</b>

**Friday, February 26, 2010**

7:00 am to 8:00 am     **Continental Breakfast in Exhibit Hall (Included in Registration)**

7:00 am to 1:30 pm     **Exhibits Open in Exhibit Hall**

8:00 am to 10:00 am     **Session #11: Sustainability**

*8:00 am – 8:25 am*     “Recovered Mineral Components [Silica Fume] and Sustainable Concrete Bridge Construction”  
Eckart Bühler, Norchem, Inc.

*8:25 am – 8:50 am*     “A Primer for Sustainable Bridges”  
Joseph Showers and Jeralee Anderson, CH2M Hill

*8:50 am – 9:15 am*     “Sustainable Infrastructure Development: Evaluating Highway Bridges”  
Eric Yermack, Arora and Associates, P.C.

*9:15 am – 9:35 am*     “Sustainability as a Guide for Selecting and Prioritizing Seismic Sustainable Bridges”  
Jamie Padgett, Rice University

*9:35 am – 10:00 am*     “Sustainability, the Cement Industry, and Proposed EPA Regulations”  
Andy O’Hare, Portland Cement Association

8:00 am to 10:00 am     **Session #12: Smart Bridges**

*8:00 am – 8:25 am*     “Instrumentation and Monitoring of I-35W St. Anthony Falls Bridge”  
Catherine French, Carol Shield, Henryk Stolarski, Brock Hedegaard and Ben Jilk, University of Minnesota

*8:25 am – 8:50 am*     “Moving Towards a Smart National Infrastructure System”  
Duncan Paterson and Said Majdi, HDR, Inc.

*8:50 am – 9:15 am*     “The New I-35 Bridge – A Safe, Smart and Sustainable Concrete Bridge”  
Amber Blanchard, Minnesota Department of Transportation; Chris Burgess and Jason Stauffer, FIGG

*9:15 am – 9:35 am*     “UDOT’s Experience With Monitoring Bridges During Moving”  
Rukhshana Khan Lindsey and Daniel Hsiao, Utah Department of Transportation; Marvin Halling, Utah State University

*9:35 am – 10:00 am*     “Sensor Technology for Assessing Bridge Performance”  
Peter J. Vanderzee, LifeSpan Technologies

8:00 am to 10:00 am     **Session #13: Bridges Strengthened With FRP**

*8:00 am – 8:30 am*     “The Use of Fiber Reinforced Polymer (FRP) Composites to Sustain the Life of Our Nation’s Bridges”  
Marc Stafford, R. J. Watson, Inc.; Julio Sanchez, Fyfe Company, LLC

8:30 am – 9:00 am	“Pre-Retrofit and Post-Retrofit Behavior of a Reinforced Concrete Slab Bridge” David Jauregui, New Mexico State University; Brice Carpenter, Bridge Diagnostics, Inc.
9:00 am – 9:30 am	“Sustaining Performance of Concrete Bridges Strengthened with FRP – Structural Systems” Kenneth Crawford, U.S. Department Of Defense-Air Force 95 ABW/Civil Engineering
9:30 am – 10:00 am	“Strengthening Three Concrete Bridges Using CFRP Composites” Samer Petro and Thomas Leech, Gannett Fleming, Inc.; Michael Ziegler, City of Phoenix
8:00 am to 10:00 am	<b>Session #14: Lightweight Concrete for Bridges, (Part Two)</b>
8:00 am – 8:25 am	“Investigation and Recommendations Related to Lightweight SCC for Prestressed Bridge Girders” Francisco Barrios, Paul Ziehl, Dimitris Rizos, University of South Carolina; Bener Amado, South Carolina Department of Transportation (DOT)
8:25 am – 8:50 am	“Examining Various Options to Extend Span Range of Precast Prestressed Bridge Girders” Razaq Ferhadi, Bechtel Power Corporation; Sameh Badie, George Washington University
8:50 am – 9:15 am	“Review of Strand Bond Performance in Lightweight Concrete” Royce W. Floyd and W. Micah Hale, University of Arkansas
9:15 am – 9:35 am	“Statistical Parameters for Compressive Strength of Lightweight Concrete” Andrzej Nowak and Anna Rakoczy, University of Nebraska
9:35 am – 10:00 am	“Lightweight Self-Consolidating Concrete for Bridge Applications” Maria Kaszynski, West Pomeranian University of Technology, Szczecin, Poland
10:00 am to 10:25 am	<b>Coffee Break in Exhibit Hall</b>
10:30 am to 12:00 pm	<b>Session #15: Innovative Design</b>
10:30 am – 10:50 am	“Investigation of Self Curing Concrete in Oregon” Bruce Johnson, Oregon Department of Transportation; Wen-Chen Jau, National Chiao-Tung University, Taiwan
10:50 am – 11:10 am	“Durable and Sustainable Approach to Designing Concrete Mixtures” Tarif Jaber, Jaber Engineering Consulting, Inc.
11:10 am – 11:30 am	“Repair of Damaged Concrete Beams Due to Collision Using Carbon Fiber Reinforced Polymers (CFRP)” Adel Elsafty, Adam Brennan, Angela Johnson, Brandon Burch, Michael Rivera, Christopher Price, Kaloyan Denev, and Matthew Graeff, University of North Florida

11:30 am – 11:50 pm	“SAMM Bridge” Madhav Jambotkar, PTI
10:30 am to 12:00 pm	<b>Session 16: Design Issues</b>
10:30 am – 10:50 am	“Bottom Flange Reinforcement of Precast Prestressed Bridge I-Girders” Quinton Patzlaff, George Morcoux, Kromel Hanna and Maher Tadros, University of Nebraska – Lincoln
10:50 am – 11:10 am	“Bridge Substructure Point of Fixity and Horizontal Force Distribution” Yumin Yang and Sejla Bakalovic, Kimley-Horn and Associates, Inc.
11:10 am – 11:30 am	“The Effect of Confinement on Transfer and Development Length of 0.7 Inch Prestressing Strands” Amin Akhnoukh, University of Arkansas at Little Rock
11:30 am – 11:50 am	“Finite Element Modeling of Continuous Reinforced Concrete Beam with External Prestressed” Amer Ibrahim and Huda Mubarak, Diyala University
10:30 am to 12:00 pm	<b>Session 17: Lightweight Concrete for Bridges, (Part Three)</b>
10:30 am – 10:50 am	“Reliability Models for Shear in Lightweight Reinforced Concrete Bridges” Piotr Paczkowski and Andrzej Nowak, University of Nebraska
10:50 am – 11:10 am	“Extending Internal Curing Concepts (Using Fine LWA) to Mixtures Containing High Volumes of Fly Ash” Javier Castro, Mike Golias, Igor De la Vargas, and Jason Weiss, Purdue University;
11:10 am – 11:30 am	“Seismic Behavior of Lightweight Aggregate Concrete Columns” Serena E. Hendrix and Mervyn J. Kowalsky, North Carolina State University
11:30 am – 11:50 am	“Non-Traditional Lightweight Concrete for Bridges” Jody Wall, Carolina Stalite Company
12:00 pm to 1:30 pm	<b>Lunch In Exhibit Hall and End of Conference (Included in Registration)</b>
1:30 pm to 4:00 pm	<b>Exhibit Tear-Down (Exhibit Hall)</b>