

WORKSHOP AGENDA

ABC-UTC NON-PROPRIETARY UHPC WORKSHOP- SESSION 1

Session 1 – December 9: Properties of ABC-UTC Non-Proprietary UHPC and Lessons Learned

The first half of the workshop will introduce ultra-high performance concrete, identify why locally produced non-proprietary mix designs are an important option for Accelerated Bridge Construction (ABC), provide a summary of the work done to develop the ABC-UTC non-proprietary UHPC mix, and include presentations focused on non-proprietary UHPC developed at institutions outside of the ABC-UTC.

Time	Title	Presenter	Description
4:15 p.m. – 4:25 p.m.	Overview of ABC-UTC Efforts for Development of ABC-UTC Non-Proprietary UHPC	Atorod Azizinamini, Director, ABC-UTC	
4:25 p.m. – 4:55 p.m.	Introduction and Basic Properties	Royce Floyd, University of Oklahoma	
4:55 p.m. – 5:15 p.m.	Performance of ABC-UTC Non-Proprietary UHPC, Using South Florida Materials	David Garber, Florida International University	
5:15 p.m. – 5:35 p.m.	Shear Strength of ABC-UTC Non-Proprietary UHPC	John Stanton and Paolo Calvi, University of Washington	
5:35 p.m. – 5:55 p.m.	Performance of ABC-UTC Non-Proprietary UHPC Deck Panel Joints –	Mohamed Moustafa, University of Nevada Reno	
5:55 p.m. – 6:15 p.m.	Development of ABC-UTC Non-Proprietary UHPC Using Iowa Materials	Iowa State University	
6:15 p.m. – 6:30 p.m.	Summary of ABC-UTC Collaborative Effort	Royce Floyd, University of Oklahoma	This presentation will provide a summary of the lessons learned about utilizing UHPC made with local materials from different parts of the United States through the ABC-UTC research study.
6:30 p.m. – 7:45 p.m.	Experience with Non-Proprietary UHPC Around the United States	Moderated by Atorod Azizinamini, Director, ABC-UTC	<p>This portion of the workshop provides a brief summary of similar work and efforts on the development of Non-Proprietary UHPC at other institutions.</p> <ul style="list-style-type: none"> • Kay Wille, Associate Professor, University of Connecticut • Micah Hale, Professor, University of Arkansas • Sherif El-Tawil, Professor, University of Michigan • Barzin Mobasher, Professor Arizona State University • George Morcouc, Professor, University of Nebraska – Lincoln • Craig Newton, Professor, New Mexico State University

7:45 p.m. – 8:15 p.m.	Panel Discussion: Owners' and Contractors' Perspective	Moderated by Atorod Azizinamini, Director, ABC-UTC	All presenters in the workshop will be involved in this panel discussion along with selected DOT and FHWA personnel. Discussion will begin with questions submitted before the workshop. This session will also provide an opportunity for attendees to ask questions of all presenters.
8:15 p.m. – 8:45 p.m.	Brief overview of Workshop Day 2	Royce Floyd, University of Oklahoma	This presentation will provide a brief overview of the demonstrations that will be conducted on the second day of the workshop, which are focused on mixing UHPC in different locations and testing methods.
ABC-UTC NON-PROPRIETARY UHPC WORKSHOP- SESSION 2			
Session 2 – December 10: Practical Demonstration of ABC-UTC Non-Proprietary UHPC			
The second half of the workshop is aimed at providing hands-on experiences for mixing UHPC. Virtual demonstrations at different ABC-UTC partner universities will be carried out and using cameras at these locations; attendees will have an opportunity to view the steps in mixing UHPC and observe the mixing process in real time.			
Time	Title	Presenter	Description
4:15 p.m. – 4:45 p.m.	Explanation of Mixing Procedures and Mixer Requirements	Royce Floyd, University of Oklahoma	This presentation will show the raw materials included in the ABC-UTC Non-Proprietary UHPC mix, discuss procedures required for mixing UHPC, and discuss the effectiveness of different types of commonly available high shear mixers. The presenter will share lessons learned from mixing the same materials at the different ABC-UTC partner institutions.
4:45 p.m. – 5:25 p.m.	Demonstration of Mixing Material at Partner Institutions	David Garber, Florida International University and Royce Floyd, University of Oklahoma	This session will include demonstration of mixing the ABC-UTC Non-Proprietary UHPC mix at two of the partner institutions in real time and by video. A representative from each institution will provide a brief explanation of the slight differences in the mixing procedure required for the given equipment.
5:25 p.m. – 5:40 p.m.	Demonstration of Flow and Discussion of Typical Issues	David Garber, Florida International University	A flow test will be run at each institution where demonstration batches of UHPC were mixed. The moderator will record the individual results and lead a discussion of modifications to the mix required to maintain required flowability.
5:40 p.m. – 6:00 p.m.	Discussion and Demonstration of Testing Methods	Royce Floyd, University of Oklahoma	Differences in testing methods required for hardened properties of UHPC will be discussed and testing of compressive strength and flexural specimens will be demonstrated.
6:00 p.m. – 6:15 p.m.	Summary and Conclusions	Atorod Azizinamini, Director, ABC-UTC	