

Handling Concrete Specifications, Low Strength Problems and Mixture Submittals
October 26, 2011 Austin, Texas

COURSE LOCATION:
 TACA office (Prosperity Bank Building on the 2nd floor)
 TACA Boardroom
 900 Congress Ave., Suite 200
 Austin, TX 78701
 P: 512-451-5100

PARKING – No charge for parking in the Colorado Street Parking Garage, 816 Colorado St. You will need to use the code 4162# to access the garage. Parking available on levels 3B and above. There is also a parking garage in the building on 9th Street between Congress Ave. and Colorado St. that is pay by the hour.

SUGGESTED NEARBY HOTELS: *NRMCA has not secured a room block for this event but recommends the following hotels.*


La Quinta Inn Austin Capitol	Sheraton Austin at the Capitol
300 East 11th Street	701 East 11th Street
Austin, TX 78701	Austin, TX 78701
Tel: 512-476-1166	Tel: 512-478-1111
(about seven blocks away)	(about nine blocks away)

AIRPORT: The nearest airport is Austin Bergstrom International Airport and is only about 20 minutes away.

TRANSPORTATION: The SuperShuttle is available for about \$28 per person roundtrip for a shared-ride van. Taxis from the airport to downtown is \$25-30 one-way.

TRAVEL AND REGISTRATION INFORMATION:
 Contact NRMCA's Jessica Walgenbach (240)-485-1152 or e-mail jWalgenbach@nrmca.org.

CANCELLATION POLICY
 NRMCA will refund registration fee less \$100.00 administration fee if cancelled on or before 10/5/11. All cancellations after 10/5/11 will not be refunded. Cancellations must be made in writing to NRMCA Meetings Dept., 900 Spring Street, Silver Spring, MD 20910 or by fax to (301) 565-8200. NRMCA reserves the right to cancel the conference. If that should occur, NRMCA will notify registrants by 10/5/11 and refund the entire registration fee but not unused airline tickets, hotel reservation fees or other travel related expenses.

 National Ready Mixed Concrete Association
 900 Spring Street
 Silver Spring, MD 20910

REGISTRATION FORM (Register using the attached registration form or online at www.nrmca.org/seminars)

Name _____
 Title _____
 Company _____
 Address _____
 City _____ State _____ Zip _____
 Phone _____ Fax _____
 Email _____

REGISTRATION FEE
 \$295 Members and non members

PAYMENT METHOD
 Check (make check payable to NRMCA)
 Mail registration form and check to:
 SunTrust Bank, c/o NRMCA
 P.O. Box 79433
 Baltimore, MD 21279

VISA MasterCard American Express

Card Number _____

Expiration Date _____

Name on Credit Card (print) _____

Signature _____

REGISTER ONLINE at www.nrmca.org/seminars
OR FAX THIS REGISTRATION FORM TO: MEETINGS DEPT., NRMCA, (301) 585-8200



Advance your Career with NRMCA's Technical Education.

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PROFESSIONAL DEVELOPMENT
 Architects and engineers earn **8 Professional Development Hours** upon completion of this program. A certificate of completion will be provided to all attendees. This program also fulfills some of the requirements for NRMCA's STEPSTM Certified Concrete Professional program. Visit www.nrmca.org/STEPS for details.

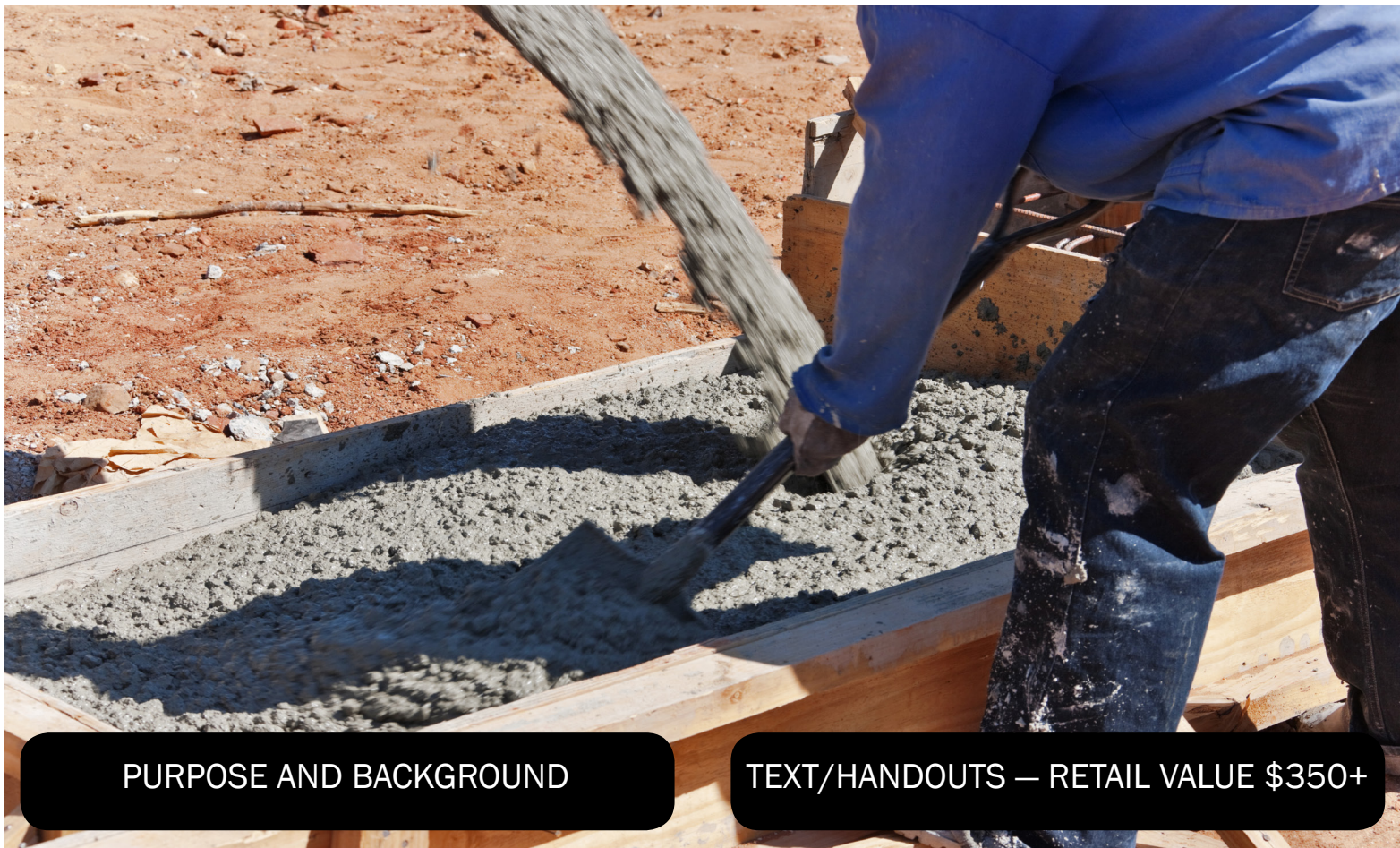
WHY ATTEND?
 Dealing with concrete specifications, troubleshooting low strength problems and ensuring proper mixture submittals can be expensive and time consuming. This one-day course will get into code and specification requirements (ACI 318, 301, ASTM C94) governing ready mixed concrete including the new ACI Building Code 318-08 exposure categories. It will suggest specification revisions for all around benefits in performance and cost based on a specification guideline document. The guideline document is the result of review of numerous concrete specifications (Section 03300) belonging to large owners and has been reviewed and supported by the NRMCA Research Engineering and Standards Committee.

WHO SHOULD ATTEND?
 Producers and contractors can use the information to initiate a discussion with design professionals to improve concrete specifications to address performance, avoid conflicts, and save money. Producers, contractors, engineers and testing labs will find the discussions on investigating low strength problems very helpful to avoid issues that impact partnering, project cost and schedule. Understanding how to do a proper mixture submittal is an essential function for the concrete producer.



Complete the enclosed registration form and fax it to Meetings Dept., NRMCA, (301)585-8200 or visit www.nrmca.org/seminars





PURPOSE AND BACKGROUND

Dealing with concrete specifications, troubleshooting low strength problems and ensuring proper mixture submittals can be expensive and time consuming. This one-day course will get into code and specification requirements (ACI 318, 301, ASTM C94) governing ready mixed concrete including the new ACI Building Code 318-08 exposure categories. It will suggest specification revisions for all around benefits in performance and cost based on a specification guideline document. The guideline document is the result of review of numerous concrete specifications (Section 03300) belonging to large owners and has been reviewed and supported by the NRMCA Research Engineering and Standards Committee.

Troubleshooting low strength problems is perhaps the primary reason for back charges for a concrete company. This could be almost entirely- avoided by knowledgeable concrete technical personnel. The course will cover the analysis of strength test results to identify causes for low strength problems including technician competence and provide guidance to track compliance with specification requirements. Non-destructive testing techniques like the Rebound Hammer, core testing, evaluating core test results for acceptance and assignment of responsibility will be discussed.

Another part of this course provides necessary details required for an efficient concrete mixture submittal following the ACI 318 flowchart for Selection of Concrete Mixtures. Analysis of a typical mixture submittal will be conducted as a group exercise.

TEXT/HANDOUTS — RETAIL VALUE \$350+

- Research to Support the Performance Specifications CD
- CD Copy of the computer program for analyzing concrete test results
- Print out of all presentations
- NEW NRMCA Publication - Guide to Improving Concrete Specifications
- NRMCA/ASCC Pre-Construction Checklist
- ACI 318 Mixture submittal Flowchart process
- NRMCA publication In-Place Concrete Strength Evaluation – A RECOMMENDED PRACTICE
- NRMCA publication Review of Variables that Influence Measured Concrete Compressive Strength
- NRMCA publication Understanding Concrete Core Testing
- Five Related Concrete in Practice Sheets (CIP)
- Three Selected Publications of Mr. Luke Snell

SEMINAR SCHEDULE— OCTOBER 26, 2011 8:00-5:00

7:30 AM: Registration

8:00 AM: Code and Specifications governing ready mixed concrete (ACI 318, 301, ASTM C94). Obla K.

9:15 AM: Specification Revisions for all around benefits. Obla K.

10:15 AM: Break

10:30 AM: Mixture Design Submittals - What does the Engineer want? Group Analysis of Typical Mixture Design Submittal. Snell L.

11:45 AM: Concrete Test Reports – What do they tell me? Snell L.

12:15 PM: Lunch on your own

1:15 PM: What causes low strength tests and how does it affect my business? Snell L.

1:45 PM: Who is responsible for the low break (testing, construction, manufacturing). Snell L.

2:30 PM: Break

2:45 PM: Using the computer program to analyze concrete strength results. *You can bring your own laptop.* Snell L.

3:15 PM: Investigating concrete: When to use NDT, coring, load test, petrography? Snell L.

4:00 PM: Texas Specific and other Geographically Discrete Specification. Szecsy R.

LEARN FROM THE EXPERTS

Luke M. Snell is a Senior Materials Engineer at Western Technologies, Phoenix Arizona and is an Emeritus Professor from Southern Illinois University Edwardsville. He has done extensive consulting work on construction and concrete problems throughout the U.S., Saudi Arabia, Mongolia, and Algeria. He has also written over 200 articles on concrete, construction materials, and construction education. Snell is the Chair of the ACI International Committee. He has been instrumental in stating ACI chapters in Mongolia, Algeria and Ethiopia and has worked with India and Saudi Arabia to start concrete certification programs. He is or has been a member of several ACI Committees. He is a Past Chair of ACI Committees 517, Accelerated Curing of Concrete; E702, Designing Concrete Structures; the ACI Chapter Activities Committee; ACI 120, History of Concrete and the Educational Activities Committee. He is also a past member of the Board of Direction. Snell is an ACI Fellow and received the ACI Joe W. Kelly Award in 1995, the ACI Chapter Activities Award in 1997, and was the ACI Educational Committee Member of the Year in 2002. He has received various other awards and was named one of the Ten Most Influential People of the Year in the Concrete Industry by Concrete Construction and Concrete Producer magazines in 2007, Construction Laureate of Mongolia (2007), and the Henry L Kennedy Award from ACI (2008). His research interests include construction materials and concrete construction. He is a licensed Professional Engineer in Missouri, Illinois, and Arizona.

Richard Szecsy, Ph.D., P.E. Richard S. Szecsy, PhD., PE is President, Texas Aggregate and Concrete Association. Before this role Rich has worked internationally as a technical expert and business development director for a 4 billion dollar ready mix and aggregate company, a Department Head at a university, and a Vice-President and Board member for one of the largest privately held ready-mix concrete and aggregate companies in the US. He serves on several state and national committees as well as Boards of Direction for ASTM, ACI, ASCE, and the NRMCA. He is widely recognized as a national expert in the areas of concrete technologies, recycled materials, self-compacting concrete, and high volume fly ash concrete, and concrete construction. He has an enormous depth and breadth of experience on operational issues such as cost controls, safety, environmental, quality control, engineering, plant design and layout, pricing strategies, marketing strategies, and direct communications with customers and the design community. He has a B.S. and M.S. in Civil Engineering from Texas A&M University, a Ph.D. in Civil Engineering from the University of Illinois, and an MBA from Our Lady of the Lake University, and is a registered professional engineer in Texas, Oklahoma, Louisiana, Arkansas, and Arizona.

Karthik Obla, Ph.D., P.E. is the Vice President, Technical Services at the National Ready Mixed Concrete Association (NRMCA). With over 20 years of experience in concrete technology, research, materials, and products he is responsible for the research program and laboratory at NRMCA. A Fellow of ACI and a winner of ACI's Young Professional Achievement Award, Dr. Obla is an active member of various ACI, ASTM, and TRB technical committees and serves as Chair for ASTM C09.49 Pervious Concrete and ACI 232 Fly ash. He has published over 50 technical articles in journals and has presented in several international conferences. He holds a Ph.D. in Civil Engineering from University of Michigan, Ann Arbor and is a licensed professional engineer in the state of Maryland. He served as Vice-President and President for the ACI San Antonio Chapter.

