



Sheraton Chicago Chicago, IL March 21-25, 2010

# **Table of Contents**

# ACI Spring 2010 Convention March 21-25, 2010 Sheraton Chicago, Chicago, IL

ACI Board Committees and Chairs ......175

| ACI Board of Direction                     | 2                                       |
|--|---|
| ACI Convention Committee                   | 175                                     |
| ACI Fall 2010 Convention                   | 6                                       |
| ACI Illinois Chapter Board of Directors    |   |
| ACI Chicago Chapter Convention Committee . | 14                                      |
| ACI President's Welcome                    | 3                                       |
| ACI Registration                           |   |
| ACI Sustaining Members                     | 7                                       |
| Concrete Mixer                             | 43 and 154                              |
| Contractors' Day Lunch                     | 42 and 142                              |
| Convention Sponsors                        | 11                                      |
| Daily Program                              | 51                                      |
| Demonstrations                             | 115 and 141                             |
| Exhibitor Floor Plan                       | between 24 and 25                       |
| Exhibitors                                 | 25                                      |
| Food and Beverage Options                  | 20                                      |
| Future ACI Conventions                     | Outside back cover                      |
| General Information                        | 17                                      |
| Governor's Welcome                         | 4                                       |
| Guest Events                               | 46                                      |
| Hotel Map                                  | between 24 and 25                       |
| International Lunch                        | 44 and 165                              |
| Mayor's Welcome                            | 5                                       |
| Membership Information                     | 18                                      |
| Numerical Committee Meeting Listing        | 73                                      |
| Opening Reception                          | 37 and 100                              |
| Opening Session                            | 37 and 97                               |
| Session Attendance Tracking Form           | after 178                               |
| Session Highlights                         | 87                                      |
| Special Events                             | 35                                      |
| Student Competitions                       | 36 and 88                               |
| Student Lunch                              | 39 and 116                              |
| Tours                                      |   |
| Transportation                             | • |
| Where's That Meeting Room?                 | 23                                      |
|  |   |

# American Concrete Institute Board of Direction

#### **President**

Florian G. Barth

#### **Vice Presidents**

Richard D. Stehly Kenneth C. Hover

#### **Directors**

Dennis C. Ahal
Emmanuel K. Attiogbe
Claude Bédard
Ramón L. Carrasquillo
Beverly A. Garnant
Charles S. Hanskat
Ronald Klemencic
Colin L. Lobo
Joseph C. Sanders
Michael J. Schneider
Andrea J. Schokker
Kari L. Yuers

#### **Past Presidents**

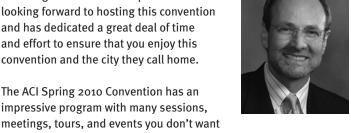
Luis E. García David Darwin Thomas D. Verti

#### **Executive Vice President**

William R. Tolley

# **ACI President's Welcome**

It is with great pleasure that I welcome you to Chicago. The Illinois Chapter has been looking forward to hosting this convention and has dedicated a great deal of time and effort to ensure that you enjoy this convention and the city they call home.



to miss. Highlights of this convention include a Pervious Concrete Student Competition, the unveiling of The Sustainable Concrete Guide: Strategies and Examples, technical sessions featuring repair in extreme conditions and reconstruction efforts in Haiti, along with technical tours that showcase Chicago's impressive architectural accomplishments. In addition, you will have the opportunity to join friends and colleagues in honoring two of the most influential individuals in ACI at the reception in honor of Tony Fiorato and retirement dinner for ACI Executive Vice President, William R. Tolley. It is my hope that throughout the convention program all of you will acquire valuable industry information and experience that will enhance your knowledge and build your professional network.

Lori and I are thrilled to share this week with each of you. We hope your convention experience is both productive and memorable, and you experience all that the city of Chicago has to offer. I would like to thank the Illinois Chapter for their dedication to planning this convention, and thank you for your support and contributions to ACI.

Kind Regards,

Florian G. Barth **ACI President** 



PAT QUINN GOVERNOR

#### Greetings!

As Governor of the State of Illinois, I am pleased to welcome everyone gathered for the American Concrete Institute's Spring 2010 Convention.

This event will provide all attendees with a chance to learn about the latest advancements in concrete technology and to discuss current concrete industry codes, specifications and guidelines. This conference also offers ample opportunity to meet and talk individually with some of the most prominent individuals and experts in the field of concrete technology. In addition to committee meetings, I am certain the networking opportunities, technical and educational sessions, seminars, social events, and exhibits will greatly benefit everyone in attendance and leave you energized to further your careers and take on new challenges.

I would like to offer a special welcome to those traveling from outside of Illinois for this event. During your stay, I encourage you to explore and discover the many sites and attractions that this great state has to offer. From historic landmarks and world-renowned museums, to first-class dining and theater experiences, there is truly a wide array of interests represented across the Land of Lincoln.

On behalf of the people of Illinois, I offer my best wishes for an enjoyable and memorable convention.

Sincerely,

Pat Quinn Governor



# OFFICE OF THE MAYOR CITY OF CHICAGO March 21, 2010

RICHARD M. DALEY

#### Greetings

As Mayor and behalf of the City of Chicago, it is my pleasure to extend warmest greetings to all those attending the American Concrete Institute's (ACI) Spring 2010 Convention.

The ACI Convention showcases products and services from top retailers and suppliers. Participants can build their skill and expertise through workshops and seminars and learn about new technology and techniques for concrete technology. This event offers outstanding opportunities to network, exchange best practices, gain access to comprehensive resources and formulate better ways to serve the customer.

While you are here, I hope that you will take the time to discover all that makes Chicago a great place to live and visit. I know you will like what you find. From our great architecture and beautiful Lake Michigan shoreline to our exciting nightlife, Millennium Park and may world-renowned cultural institutions, Chicago offers something for everyone.

Best wishes to everyone for an enjoyable and productive event.

Sincerely,

Richard M. Daley

Mayor



# ACI Fall 2010 Convention Green Concrete in the Steel City October 24-28, 2010 • Pittsburgh, PA

Highlights of the convention will include:

- Tour of the Convention Center, world's first green convention facility
- Sustainability: Systems, Buildings and Materials presentation at Student Lunch
- Student Egg Protection Device Competition
- Session on Bidding a LEED Project
- Concrete Mixer at the Heinz History Center—the largest museum of Pennsylvania history.
- Dinner cruise
- Tour of Frank Lloyd Wright's "Falling Water"

For more information about the ACI Fall 2010 Convention, go to **www.aciconvention.org**.





**ACS Manufacturing Corporation** 



**ALJANS** 



Ash Grove Cement Company



Ashford Formula



Baker Concrete Construction, Inc.



The Chemical Company

BASF Admixtures, Inc.



BCS





Boral Material Technologies, Inc.

**Bray Structures** 



Buzzi Unicem



Cantera Concrete Company



**CECO Concrete Construction** 



CHRYSO-ProMix Technologies



Commercial Contracting Corporation

Concrete
Engineering
Specialists

Concrete Engineering Specialists



Concrete Reinforcing
Steel Institute



CTLGroup



**Dayton Superior** 

# e.construct

e-construct



The Euclid Chemical Co.



Fibercon International, Inc.

Francis Harvey & Sons



FUTURE TECH CONSULTANTS Construction Materials Engineering, Inspection & Testing Services

**Future Tech Consultants** 



W.R. Grace & Co.



Headwaters Resources, Inc.



Holcim (US) Inc.



ICS Penetron International Ltd



Keystone Structural Concrete, Ltd.



Kleinfelder



Lafarge North America



Lehigh Cement Co.



Lithko Contracting, Inc.



Meadow Burke



W. R. Meadows, Inc.



Metromont Corporation



Municipal Testing



OMYA Canada, Inc.

**Operating Engineers Training Trust** 



Oztec



Portland Cement Association



Precast/Prestressed Concrete Institute



CONCRETE SYSTEMS

**Propex Concrete Systems** 



LM Scofield



Seretta Construction, Inc.



Sika Corp.



 ${f SKG}$  S. K. Ghosh Associates Inc. Seismic and Building Code Consulting

S. K. Ghosh Associates, Inc.

STRUCTURAL M PRESERVATION

Structural Group



Structural Services, Inc.



Triad Engineering, Inc.



Tru Wall Concrete, Inc.



Unibeton Ready Mix





Wacker Neuson



Webcor Concrete



Westroc, Inc.

# **Convention Sponsors**

The ACI Illinois Chapter wishes to thank the following organizations for their donations that helped to make the ACI Spring 2010 Convention a success.

#### SEARS TOWER aka BIG WILLI TOWER— TALLEST BUILDING IN CHICAGO

ACI Illinois Chapter Baker Concrete Construction, Inc. CTLGroup

#### TRUMP TOWER—HIGHEST STRENGTH CONCRETE

BASF Construction Chemicals, LLC
Holcim (US) Inc.
Sika Corporation
Wiss, Janney, Elstner Associates, Inc.

#### BAHA'I TEMPLE—MOST BEAUTIFUL CONCRETE STRUCTURE

The Euclid Chemical Company

# 311 S. WACKER DRIVE—FORMER TALLEST CONCRETE STRUCTURE

**Grace Construction Products** 

# MARINA TOWERS—MOST RECOGNIZED CONCRETE STRUCTURE

Flood Testing Laboratories Illinois Cement Lafarge Cement Lehigh Cement VCNA Prairie/St. Mary's

#### WACKER DRIVE-LONGEST DESIGN LIFE CONCRETE

ACI Carolinas Chapter
ACI Greater Michigan Chapter
ACI Indiana Chapter
ACI Missouri Chapter
ACI San Antonio Chapter
Elmhurst Chicago Stone Co.
King Packaged Materials Company (King Shotcrete)
Quality Restoration

# **Convention Sponsors (cont.)**

#### **DEEP TUNNEL—DEEPEST HIGH STRENGTH CONCRETE**

ACI Arizona Chapter
ACI Florida Suncoast Chapter
ACI Georgia Chapter
ACI Intermountain Chapter
ACI Louisiana Chapter
ACI New Jersey Chapter
ACI Northeast Texas Chapter
ACI Rocky Mountain Chapter
Butterfield Color
Concrete Industry Board, A New York City ACI Chapter
Continental Cement
Xpress Materials, LLC

# CIRCLE INTERCHANGE—BUSIEST ELEVATED HIGHWAY CONCRETE

Mohr Ready Mix Todd Nelson Rich Shadle

Sponsors are listed as of 2/24/10.

# ACI Illinois Chapter 2010 Officers and Board of Directors

#### **President**

Todd Nelson, Wiss, Janney, Elstner Associates, Inc.

Vice President Mark Korduck

**Past President** 

Ken Hemmingsen, Meyer Material Co.

Secretary

Patrick O'Brien, Holcim (US) Inc.

**Assistant Secretary** 

Carol Park, Park Graphics

#### **Treasurer**

Susanne Flood, Flood Testing Laboratories, Inc.

#### **Directors**

Nestor Chonillo, James Instruments
Michael Hufnagel, Flood Testing Laboratories, Inc.
Joni Lauren Jones, CTLGroup
Brad Pfanenstiel, BASF Construction Chemicals, LLC—Admixture Systems
Rich Shadle, Sika Corporation
Pete Stamatopoulos, Elmhurst Chicago Stone Co.

# ACI Chicago Chapter Convention Committee

#### Tri-Chairs

Willy Morrison, CTLGroup Kelly Page, International Concrete Repair Institute (ICRI) Margaret Reed, Wiss, Janney, Elstner Associates, Inc.

#### **Contractors' Day**

Jerry McGovern, Metropolitan Water Reclamation District Lonny Terzo, Prairie Material Paul Tuscher, Prairie Material

#### **Exhibits**

Nestor Chonillo, James Instruments Vicki Jennings, CTLGroup David McDonald, Epoxy Interest Group of CRSI Rich Shadle, Sika Corporation

#### **Fundraising**

Walter H. Flood IV, Flood Testing Laboratories, Inc. Rich Shadle, Sika Corporation

#### **Guest Program**

Cathy Fiorato Jill Humphrey Marian Meinheit Katy Russell

#### **Publicity**

Nick Graziani, Sika Corporation
Danielle Kleinhans, CTLGroup
Michael Morrison, CTLGroup
Peter Stamatopolous, Elmhurst Chicago Stone Co.

#### **Social Events**

Mark Korduck
Patrick O'Brien, Holcim (US) Inc.
Brad Pfanenstiel, BASF Construction Chemicals, LLC – Admixture Systems

#### **Student Program**

Walter H. Flood IV, Flood Testing Laboratories, Inc. Joni Lauren Jones, CTLGroup

# ACI Chicago Chapter Convention Committee (cont.)

#### **Technical Sessions**

Joe Balik, W.R. Grace & Co. Ron Burg, CTLGroup James Clarke, Prairie Material Paul Gaudette, Wiss, Janney, Elstner Associates, Inc.

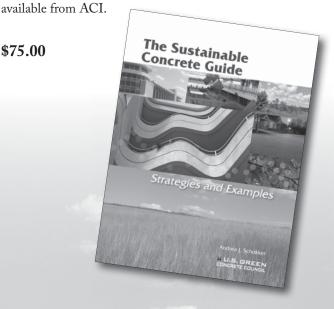
#### **Treasurer**

Susanne Flood, Flood Testing Laboratories, Inc.

# The Sustainable Concrete Guide— Strategies and Examples

The first-ever comprehensive resource on concrete and sustainability, this book provides insight on specific strategies for the best use of concrete in high-performance, long-lasting green buildings. Included are case studies, technical data and references, and numerous practices that can be implemented immediately. This is the first in a series of guides on sustainable concrete published by the U.S. Green Concrete Council and

\$75.00





American Concrete Institute® Advancing concrete knowledge

www.concrete.org 248-848-3800

- Carbon footprint Thermal mass and storage Thermal transmission
  - Longevity and service life
     Stormwater management
    - Human factors and the living/working environment
      - Security and safety Local community impact

        - Reduce, reuse, recycle Economic impact
          - Resilience Compatibility

#### **ACI Registration**

#### **RIVER EXHIBIT HALL**

ACI staff is available to answer your convention questions at the ACI Registration Desk during the following hours:

 Saturday
 2:00 pm-6:00 pm

 Sunday
 7:30 am-5:00 pm

 Monday
 8:00 am-5:00 pm

 Tuesday
 8:00 am-5:00 pm

 Wednesday
 8:00 am-12:00 pm

#### **Name Badges**

ACI uses color-coded name badges to identify attendees. Name badges are as follows:

Member: Blue
Attendee: Black
Fellow: Green
Honorary Member: Red
Staff: Orange
Guest: Tan

Student: Green Ribbon

#### Attention ACI Attendees!

First-time convention attendees have a "Convention #1" ribbon on their name badge. Please welcome them to the convention!

#### **Schedule Changes**

#### **RIVER EXHIBIT HALL**

Cancellations, additions, and location changes to the convention schedule will be posted daily on a monitor inside the exhibit area at the Sheraton Chicago.

#### **Emergencies**

In the event of an emergency, we kindly request that you do NOT dial 9-1-1. Please go to the nearest house phone to contact the hotel operator by dialing '0' or hotel security at extension 88.

#### **ACI Book Drive**

#### **OUTSIDE RIVER EXHIBIT HALL**

#### **Making Literacy More Concrete!**

ACI will conduct a book drive during the ACI Spring 2010 Convention, in an effort to promote literacy. Bring a new or gently used book for children in grades K-12, to help us reach our goal of 1200 books!

Donated books will be given to Book Worm Angels' a non-profit organization founded to help children in underachieving Chicago Public Schools strengthen their reading skills and develop a love for reading. Book Worm Angels helps to establish classroom lending libraries for recreational reading in an easily administered program involving principals, teachers, reading specialists, and parents/caregivers. To learn more about Book Worm Angels, visit www.bookangels.org.

#### **ACI Bookstore**

**RIVER EXHIBIT HALL** 

Visit the ACI Bookstore during the following hours:

Saturday 2:00 pm-6:00 pm Sunday-Tuesday 8:00 am-5:00 pm Wednesday 8:00 am-12:00 pm

#### **Career Center**

#### **RIVER EXHIBIT HALL**

Looking for a job or an employee? Visit the ACI Bookstore to view ACI's Online Career Center. This job search engine is specifically targeted to the concrete industry. Job seekers, you'll have an opportunity to post your resume and to view, apply for, and save available jobs. Employers, you'll have the opportunity to post job openings, post internships FREE of charge, and target the individuals you want to attract.

#### Membership Information

#### **RIVER EXHIBIT HALL**

To learn MORE about the benefits of becoming an ACI member and how to become a member, visit the ACI Bookstore.

#### **ACI E-Learning**

#### RIVER EXHIBIT HALL

ACI is expanding its reach to provide educational training via the Internet. This program will cover topics from ACI certification training to courses covering design, construction, and repair of concrete. E-Learning courses are now available. Stop by the ACI Bookstore to learn more about this new program.

#### **Cyber Stations and Wireless Hot Spots**

**RIVER EXHIBIT HALL** 

Stay connected to home and work! Take advantage of the Cyber Stations and FREE wireless hot spots available in the River Exhibit Hall during the following hours:

Saturday 2:00 pm-6:00 pm Sunday-Tuesday 8:00 am-5:00 pm Wednesday 8:00 am-2:00 pm

To access the wireless connection, look for ACI Cybercafe 1, ACI Cybercafe 2, ACI Cybercafe 3, or ACI Cybercafe 4 in your network connections.

**ACI will have a limited number of laptop charging stations. Charging time is limited to 20 minutes.** DO NOT leave your laptop or other valuables unattended at any time. ACI and the Sheraton are not responsible for lost or stolen items.

#### **Local Information**

#### **OUTSIDE RIVER EXHIBIT HALL**

ACI Illinois Chapter members will be happy to answer questions about the local area. Stop by their information desk during the following hours:

Saturday 2:00 am-6:00 pm Sunday-Tuesday 8:00 am-5:00 pm

#### ACI Fall 2010 Convention Information OUTSIDE RIVER EXHIBIT HALL

Mark your calendars for the Fall 2010 Convention October 24-28, 2010 in Pittsburgh, PA. The convention will focus on sustainability and thus has the theme "Green Concrete in the Steel City." The ACI Pittsburgh Area Chapter will be available Sunday through Tuesday to answer your questions about Pittsburgh and activities at the fall convention.



#### **FOOD AND BEVERAGE OPTIONS**

#### **ACI Concession Stand**

#### RIVER EXHIBIT HALL-LEVEL 1

A concession stand will be set up in the River Exhibition Hall Sunday through Tuesday, 11:00 am-2:00 pm. Sandwiches, salads, fruit and other grab-and-go items will be available for purchase.

#### LB Bistro and Patisserie

LEVEL 2

Enjoy American cuisine in this French bistro-style restaurant. Breakfast is available Monday through Sunday 6:30 am-11:30 am. A breakfast buffet is available until 12:00 pm on weekends. Lunch is served 11:30 am-2:00 pm.

Chi Bar LOBBY LEVEL

Beverages and a limited bar menu are available 5:00 pm-1:00 am daily.

#### **Chicago Burger Company**

LEVEL 1

Hours of operation vary from 11:30 am-7:00 pm based on hotel occupancy.

#### Shula's Steak House

LOBBY LEVEL

Shula's is one of Chicago's premier steakhouses which also offers seafood and is open daily for dinner 5:30 pm-10:00 pm.

#### The Link@Sheraton Cafe

LEVEL 2

Stop by to grab coffee or a snack from 6:00 am-5:00 pm. Workstations and wireless Internet is available 24 hours a day for hotel guests.

Java Bar LOBBY LEVEL

Java Bar is open each morning based on occupancy. Coffee, juice fruit and pastries are available. Additionally, beverages and a limited bar menu are available 3:00 pm-11:00 pm.

#### Room Service

Room service is available 6:00 am-11:00 am and 4:00 pm-2:00 am daily.

#### **Restaurant Reservations**

LOBBY LEVEL

The concierge will be available to make restaurant reservations and recommendations daily 7:00 am-9:00 pm daily.

#### Beverage Breaks and Beer Garden RIVER EXHIBIT HALL

Beverages are available during the following hours.

Coffee Sunday-Wednesday 7:30 am-10:30 am Soda Saturday 2:00 pm-5:00 pm

Sunday-Tuesday 11:00 am-2:00 pm

Beer Garden Monday-Tuesday 4:00 pm-6:00 pm

#### **Water Stations**

In an attempt to lessen the amount of bottled water thrown away during each convention, ACI has chosen not to provide bottled water to attendees. As a replacement, water stations will be placed throughout the hotel for you to enjoy.

#### **Alcohol Policy**

Non-alcoholic beer and soft drinks are available at all ACIsponsored receptions. The legal drinking age in Illinois is 21.

#### **TRANSPORTATION**

#### **Airport Shuttle**

Go Airport Shuttle Express offers a scheduled transfer service 7 days a week to both Chicago O'Hare International Airport and Midway International Airport. Please note that Go Airport Shuttle Express does make additional stops at other hotels on the way to the airport, which could delay your anticipated arrival/departure times. Return transfer reservations must be made 24 hours prior to departure.

To purchase your shuttle ticket in advance or to learn more about Go Airport Shuttle Express, please visit http://www.airportexpress.com/index.html or call 1-888-284-3826. For a 20% discount on the ACI Spring 2010 Airport Shuttle visit http://airportexpress.hudsonltd.net/res?USERIDENTRY=ACI&LOGON=GO.

#### **Taxis**

Taxis are available from the main lobby. The average cost of a taxi to O'Hare International or Midway International Airport is approximately \$28 to \$40 depending on the number of passengers, time of day and airport of departure.

Taking a taxi around town? Be sure to have the address where you are going to give to the driver.

#### **Public Transportation**

The Chicago Transit Authority (CTA) offers regional transit (bus and rail service) throughout the Chicago metro area. For schedule, fare and station location information, visit www.transitchicago.com. Heading back to O'Hare International Airport? Go to the Clark and Lake Street Station and take the Blue Line train towards O'Hare. If you're leaving from Midway International Airport, go to the State and Lake Street Station and ride the Orange Line train to Midway.

#### **Session Handouts on Demand**

RIVER EXHIBIT HALL

Handouts are available from speakers who have elected to provide and post them to the ACI Web site. Stop by the Cyber Stations or go to www.aciconvention.org/handouts to download or print a copy of the handouts for the sessions you plan to attend. If you do not find a handout for a particular session, please contact the speaker for more information.

#### **Session Attendance Tracking Form**

The Session Attendance Tracking Form, found after page 178, can be submitted to state boards that allow self-reporting of Continuing Education activities as evidence of participation. In most cases, one contact hour is equal to one Professional Development Hour (PDH). Check with your state board for acceptance criteria. Please note: ACI does not track and cannot provide documentation confirming attendee participation or attendance at any ACI session held during the convention.

#### Speaker Ready Room

**FOUNTAINVIEW** 

The Speaker Ready Room is available to moderators, speakers, and committee chairs during the following hours:

 Saturday
 3:00 pm-6:00 pm

 Sunday
 7:00 am-7:00 pm

 Monday & Tuesday
 7:00 am-6:00 pm

 Wednesday
 7:00 am-3:00 pm

All speakers are requested to check in at the Speaker Ready Room one day prior to their session to ensure that:

- ACI has downloaded their presentation on the network in the session rooms
- · Speakers' session handouts are downloaded onto the ACI Web site

# Where's That Meeting Room?

| ROOM NAME          | LOCATION       |
|--------------------|----------------|
| ARKANSAS           | Level 2        |
| CHICAGO 6          | Ballroom Level |
| CHICAGO 7          | Ballroom Level |
| CHICAGO 8          | Ballroom Level |
| CHICAGO 9          | Ballroom Level |
| CHICAGO 10         | Ballroom Level |
| COLORADO           | Level 2        |
| COLUMBUS A         | Lobby Level    |
| COLUMBUS B         | Lobby Level    |
| ERIE               | Level 2        |
| FOUNTAINVIEW       | Level 5        |
| HURON              | Level 2        |
| ILLINOIS BOARDROOM | Level 2        |
| LINCOLN BOARDROOM  | Lobby Level    |
| MAYFAIR            | Level 2        |
| MICHIGAN A         | Level 2        |
| MICHIGAN B         | Level 2        |
| MISSISSIPPI        | Level 2        |
| MISSOURI           | Level 2        |
| OHIO               | Level 2        |
| ONTARIO            | Level 2        |
| PARLOR A           | Lobby Level    |
| PARLOR B           | Lobby Level    |
| PARLOR C           | Lobby Level    |
| PARLOR D           | Lobby Level    |
| PARLOR E           | Lobby Level    |
| PARLOR F           | Lobby Level    |
| PARLOR G           | Lobby Level    |
| RIVER EXHIBIT HALL | Level 1        |
| SHERATON 1         | Ballroom Level |
| SHERATON 2         | Ballroom Level |
| SHERATON 3         | Ballroom Level |
| SHERATON 4         | Ballroom Level |
| SHERATON 5         | Ballroom Level |
| SUITE 829          | Level 8        |
| SUITE 830          | Level 8        |
| SUITE 836          | Level 8        |
| SUITE 929          | Level 9        |
| SUITE 930          | Level 9        |
| SUITE 936          | Level 9        |
| SUITE 1029         | Level 10       |
| SUITE 1537         | Level 15       |
| SUPERIOR A         | Level 2        |
| SUPERIOR B         | Level 2        |

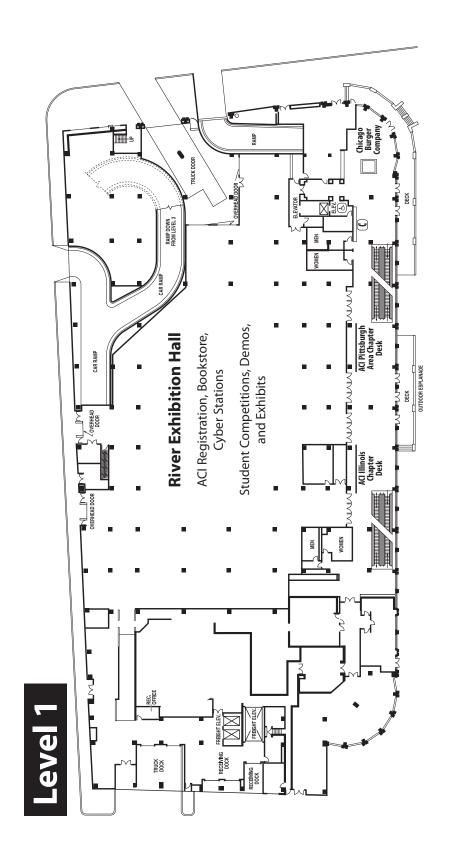


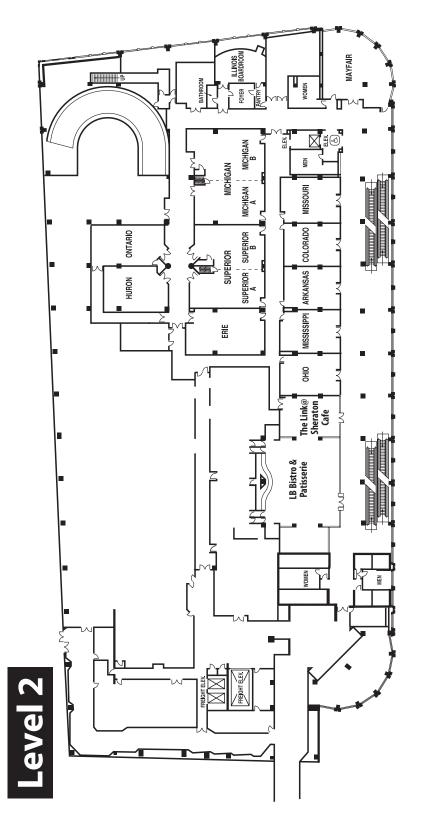
### Winning is easy and fun:

- Stop by the ACI Illinois Chapter Desk located outside the River Exhibit Hall to pick up your Exhibitor Contact Card (one entry per attendee).\*
- 2. Fill in your card with your contact information.
- 3. Visit with exhibitors and find out about their products/services. Each exhibitor you visit will give you a sticker to place on your card.
- Once your Exhibitor Contact Card is full, turn the completed card into the ACI Illinois Chapter Desk.
- 5. At 5:00 pm on Monday and Tuesday, March 22 and 23, the drawing winners will be announced in the Beer Garden.

If you win but are not at the Beer Garden, the Chicago Chapter Convention Committee will send your prize to you!

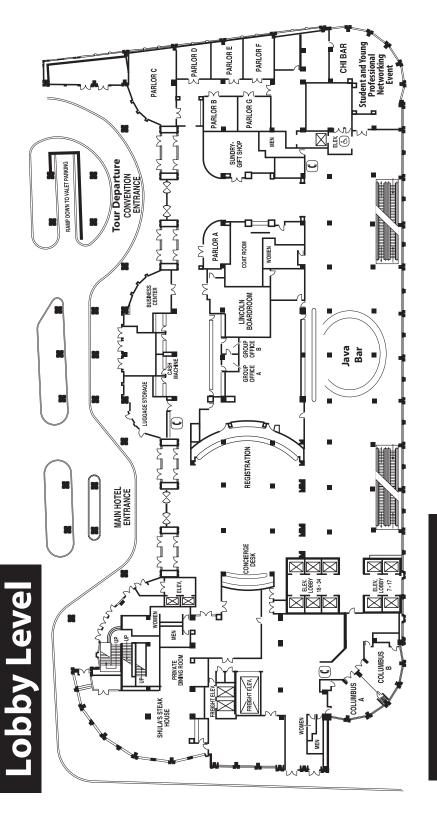
\*Exhibitors are not eligible to win.



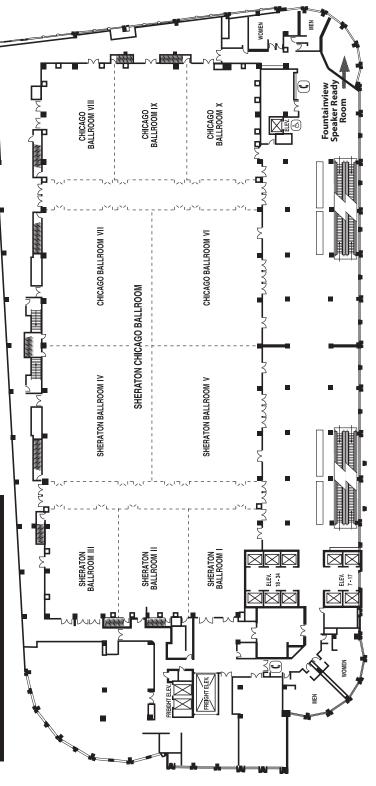


# Sheraton Chicago Floorplan

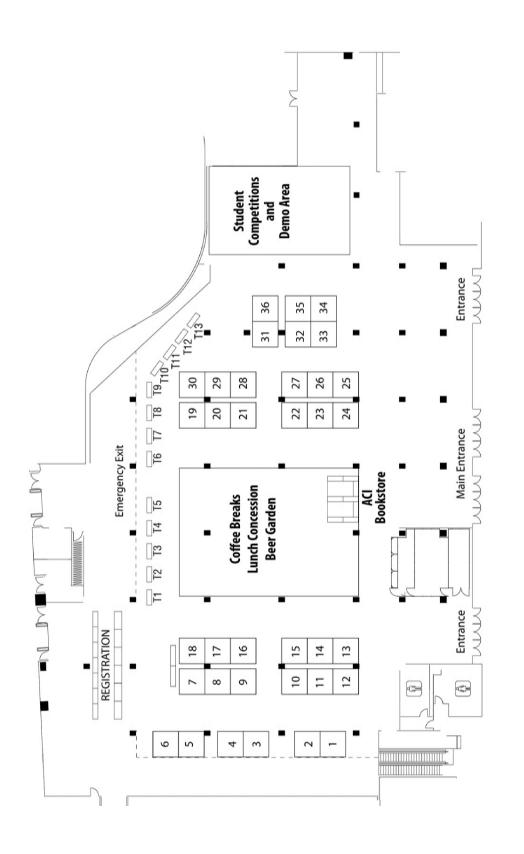
# Sheraton Chicago Floorplan



# **Ballroom Level**



# **Exhibits/Registration Exhibition Hall** River



#### Exhibitor listing as of 2/24/10

#### **Exhibits**

#### **RIVER EXHIBIT HALL**

The ACI Illinois Chapter and the American Concrete Institute wish to thank all exhibitors for their participation and support of the ACI Spring 2010 Convention.

#### **Exhibit Hours**

Please visit the exhibitors during the following hours:

 Sunday
 8:00 am-5:00 pm

 Monday
 8:00 am-5:00 pm

 Tuesday
 8:00 am-5:00 pm

#### **American Casein Company**

Booths #5 & 6

American Casein Company offers specialized protein polymers for use as a water reducer or super-plasticizer in cement applications including but not limited to injection grouting, self-leveling underlayments and historic repair. Technical assistance is available as well from Amco's Protein Polymer Group. For additional information visit www.americancasein.com.

#### Atlas Restoration, LLC

Table #3

This geotechnical contractor's scope of work includes slab stabilization, joint repair, foundation remediation with Atlas Piers and deep foundation systems with Chana Helical Anchors. Attend Atlas' presentation of Slab Stabalization with Polyurethane Foam on Tuesday, March 23rd at 9:45 am in the River Exhibit Hall. For additional information visit www.atlasrestoration.com.

#### **BASF Construction Chemicals, LLC**

Booth #21

BASF's Construction Chemicals division is the worldwide supplier of chemical systems and formulations for the construction industry. The North American Construction Chemicals Division of BASF is comprised of four business lines that offer products and solutions primarily for commercial, residential, industrial, and infrastructure construction, improving durability, water resistance, energy efficiency, safety, and aesthetics. BASF's innovative products and solutions help make products better. BASF will introduce a revolutionary workability admixture on Monday, March 22nd at 10:30 am in the River Exhibit Hall. Contact BASF Construction Chemicals at 800-628-9990 or visit www.construction-chemicals.basf.com.

#### Exhibitor listing as of 2/24/10

#### **Burgess Pigment Company**

Booth #18

Introducing Burgess OPTIPOZZ, a highly reactive metakaolin, engineered for quick strength, improved durability, and reduced efflorescence in your mix design. For more information, visit www.burgesspigment.com.

#### Chicago Testing Laboratory, Inc.

Table #5

Chicago Testing Laboratory (CTL) is your "best-in-class" resource for portland cement concrete testing, inspection, training, and engineering. Since 1912, CTL has maintained its reputation as a leader in the field of materials testing and inspection. Visit www.chicagotestinglab.com for additional information.

#### **Construction Tie Products**

Booth #33

Construction Tie Products (CTP) designs, produces, and supplies specialty anchors for the masonry restoration and masonry construction marketplace. CTP is a U.S. company supplying S.S. helical ties, mechanical repair anchors, stone anchors, and provides services to design and manufacture ties for special applications.

#### **CTLGroup**

Booths #19 & 20

CTLGroup is an internationally recognized professional consulting and testing firm that provides engineering and scientific services to clients in the transportation, materials, power, buildings and facilities, and legal and insurance industries. Our unmatched ability to deliver for clients on all these elements is what makes CTLGroup the industry leader. For additional information, visit www.ctlgroup.com.

#### Decon USA, Inc.

Booth #24

Decon USA is the original North American manufacturer of Studrails and the exclusive distributor of the Macalloy Tension Rod System and the Jordahl Anchor Channels. Decon will be featuring the three innovative product lines at their booth. Visit www.deconusa.com for additional information.

#### **Engius, LCC**

Table #2

Engius develops and sells high-tech products for the heavy-construction, concrete industry. The company's flagship product is the IntelliRock product line that monitors the thermal properties of concrete and is able to determine the strength of curing concrete in real-time. Visit our booth to see our new wireless system that enables access to real-time data via the Internet. Engius will demonstrate "IntelliRock and Concrete Maturity" on Monday, March 22nd at 3:00 pm in the River Exhibit Hall. For additional information, visit www.engius.com.

#### Exhibitor listing as of 2/24/10

ERICO Booth #31

ERICO is a leading global designer, manufacturer and marketer of precision-engineered specialty metal products serving niche markets in a diverse range of electrical, construction, utility and rail applications. ERICO is also proud if its LENTON® line of rebar splicing systems and other products utilized to connect steel reinforced rods in concrete. Attend ERICO's product demonstration on Tuesday, March 23rd at 11:15 am in the River Exhibit Hall.

#### The Euclid Chemical Co.

Table #1

The Euclid Chemical Co., founded in 1910, is a worldwide supplier of quality products and services for the concrete and masonry industry. Euclid offers a full line of admixtures, and repair and maintenance products based on the latest technology. Euclid provides on-site service for guidance on proper product usage as well as complete specification assistance and laboratory support. To learn more about The Euclid Chemical Co., visit www.euclidchemical.com.

Forney Inc. Table #11

Forney Inc. is the leading manufacturer of testing equipment for the construction industry. Renowned as a new product innovator since 1916, Forney offers thousands of test products for the concrete, asphalt and soils industries. Working with the test labs of DOT's, universities and civil engineers, Forney, in its own way, helps make the world a safer place. Please visit www.forneyonline.com for more information.

#### Germann Instruments, Inc.

Booths #34 & 35

Germann Instruments is the leader in nondestructive testing (NDT) of concrete structures. Their cutting-edge innovative product line includes: advance NDT Equipment for concrete testing. For Structural Integrity—Impact-Echo, Mash, MIRA/Eyecon 3-D Shear Wave Systems. Durability-Service Life, Rheometer, PROOVEit, Chloride & Profile. Freeze-thaw—EVA Analyzer & RapidAir. Fast-track construction—LOK-TEST, Coma-Meter. Corrosion survey—GalvaPulse, RapiCor. Repair quality—Bond-Test, CorroEye. On Tuesday, March 23rd, Germann will present the latest NDT systems and their applications at 9:00 am in the River Exhibit Hall. Visit www.germann.org for additional information.

#### Exhibitor listing as of 2/24/10

#### **Grace Construction Products**

Booth #15

Headquartered in Cambridge, MA, Grace Construction Products is a worldwide leading manufacturer of concrete admixtures and fibers, liquid pigments for colored concrete, cement processing additives, concrete masonry products, air and vapor barriers, roofing underlayments, self-adhered window, door and deck flashings, structural waterproofing systems, and fire protection products. Visit www.graceconstruction.com for additional information.

GSSI Booth #27

GSSI, the world leader in ground penetrating radar, exhibits the most advanced products used for the nondestructive inspection of concrete location and maps a target's depth with precision prior to cutting and coring with our innovative Structure Scan systems. Stop by our booth for a demonstration of the new Structure Scan Mini! Attend our presentation "Introduction to Ground Penetrating Radar for Concrete Inspection" on Monday, March 22nd at 2:15 pm in the River Exhibit Hall. For additional information, visit www.geophysical.com.

#### Humboldt Mfg. Co.

Table #13

When it comes to construction materials testing equipment, Humboldt Mfg. Co. has the largest selection of equipment and the largest in-stock inventories for all your testing needs. Humboldt carries equipment for whatever aspect of materials testing you're involved in: fresh concrete testing or strength testing; non-destructive testing of concrete; cement testing; concrete flooring and floor coverings; testing aggregate properties, general laboratory equipment and more. Visit www.humboldtmfg.com for additional information.

#### **International Concrete Repair Institute**

Table #12

ICRI, the International Concrete Repair Institute, is a leading resource for education and information to improve the quality of repair, restoration, and protection of concrete and other structures. Membership includes contractors, manufacturers, engineers, owners, and other professionals around the world with this common goal. Learn more about ICRI at www.icri.org.

#### Exhibitor listing as of 2/24/10

#### James Instruments, Inc.

Booth #14

James Instruments began in 1968 by supplying the now classic R meter rebar locator. James Instruments expanded product line of strength, ultrasonic, rebar location, corrosion, moisture and maturity provides updated technology to the non-destructive testing field. Attend James Instruments demonstration of NDT testing equipment and applications on Tuesday March 23rd at 1:30 pm in the River Exhibit Hall. For additional information, please visit www.ndtjames.com.

JE Tomes Table #7

JE Tomes and Associates manufactures specialty concrete products for the repair and restoration industry. Their color-matched product line sets the standard for restoration materials by significantly reducing the appearance of repairs. Their products include resurfacing and patching mortars, form and pour concretes, shotcretes, underlayments, self-leveling cements, and many more. Visit www.jetomes.com for additional information.

#### Kryton International Inc.

Booth #23

Kryton develops, manufactures, and markets a wide range of products designed to waterproof, repair, and protect concrete structures. Developed in Kryton's dedicated concrete research laboratory and tested in the field for over 35 years, the Krystol Concrete Waterproofing System is the world's leading integral crystalline waterproofing technology. Don't miss our presentation on Monday, March 22nd at 11:15 am in the River Exhibit Hall. To learn more about Kryton, visit www.kryton.com.

#### James McHugh Construction Co.

Booth #4

James McHugh Construction Co.'s innovative ideas are the driving force behind their history of providing concrete services on many of the Midwest's most complex structures. Regularly called on to provide expertise and critical insights on today's most technically demanding construction projects, McHugh offers techniques and capabilities that result in high quality, cost-saving approaches to projects. For additional information, visit www.mchughconstruction.com.

#### Exhibitor listing as of 2/24/10

#### National Restoration Systems, Inc.

Booth #1

National Restoration Systems, Inc. (NRS) features general contractors specializing in the restoration and protection of concrete and masonry structures. NRS has offices in both Chicago and Boston. For more information on our company, projects, and key employees, please visit www.nrsys.com.

#### **Northeast Solite Corporation**

Booth #10

Northeast Solite Corporation proudly celebrates 60 years of providing the highest quality, most innovative, and ecologically sound construction products available today. Its two operating companies (Northeast Solite Corporation [1961] and Kentucky Solite Corporation [1972]) are backed up by two coal reserve companies, several strategically located distribution plants, development properties, and land holding companies for future expansion. For more information, visit www.nesolite.com.

#### **Olson Engineering**

Booth #32

Olson Engineering specializes in nondestructive evaluation (NDE), infrastructure condition assessment and repair, structural health monitoring, geophysical and vibration engineering. Olson Instruments manufactures ultrasonic, sonic and seismic instruments for pavements, foundations, and structures as well as seismic surface wave, crosshole, downhole, reflection and refraction tests, and distributes IDS radar systems in the U.S. Attend our demonstration on "Sonic, Radar, and Electrical Methods for Imaging Concrete and Rebar" on Tuesday, March 23rd at 12:45 pm in the River Exhibit Hall.

#### Proceq USA Inc.

Booth #16

Proceq USA Inc. offers a complete range of portable concrete testing instruments for nondestructive site investigations. Products include the Original SCHMIDT Concrete Test Hammer, Profometer 5+ Rebar Detection System, and a host of other products for ultrasonic pulse velocity, corrosion analysis, resistivity, permeability, and pulloff/bond strength test applications. On Monday, March 22nd at 1:30 pm, Proceq will introduce the New SilverSchmidt Concrete Test Hammer in the River Exhibition Hall. Visit www.proceq-usa.com for additional information.

#### Propex Concrete Systems – ELEMIX

Booths #25 & 26

Propex is the world leader in supplying fibers for secondary concrete reinforcement to the construction market. Our synthetic fibers, steel fibers, and highly engineered fiber blends are designed to provide superior concrete crack control over the entire life span of the concrete. Visit www.fibermesh.com for additional information.

#### Exhibitor listing as of 2/24/10

#### QuakeWrap Inc.

Booth #28

QuakeWrap's award-winning technology provides solutions for repair and strengthening of structures using fiber-reinforced polymers (FRP) at a fraction of the time and cost of conventional methods. Within one integrated process, our highly-skilled engineers and construction crews create innovative solutions specifically tailored to clients. Applications include: beams, columns, walls, tanks, pipes, underwater piles, etc. Join us Monday, March 22nd at 9:45 am in the River Exhibition Hall as we present "Super Laminates™, the Next Generation of FRP." Please visit www.quakewrap.com for more information.

#### Robert H. Ward and Assoc., Inc.

Table #10

We are in our 49th year of serving the repair industry, and are the nationally recognized shotcrete experts for the repair of concrete. Please stop by our table to view an excellent PowerPoint presentation of important projects completed, view one of the "secrets" to our success, or just to say hello.

#### School of Business and Economics at Michigan Technological University

Table #14

The Michigan Tech MBA Online Program is changing the rules for online MBAs. Our 2-year online program focuses on innovation and technology management, the perfect complement to your career. Bridge the fields of technology and business to meet the demands of a constantly changing world. Stop by our table to learn more!

#### Sika Corporation

Booth #22

Sika Corporation, based in Lyndhurst NJ, is a technology leader with 100 years of experience in concrete materials and restoration technology. Sika's innovative product line includes resins, structural strengthening systems, grouts, anchoring adhesives, overlays, industrial flooring, roofing systems, protective coatings and wood floor adhesive systems, and installation products. Full service sales and technical offices support our customers nationwide. Learn more about the Sika Corporation by visiting www.sikaconstruction.com.

#### Silica Fume Association

Booth #17

The Silica Fume Association provides high-performance concrete and Silica Fume technology to design engineers and transportation authorities. As a valuable recycled waste material, Silica Fume offers unique properties to sustainable concrete structures. Learn more about the Silica Fume Association by visiting www.silicafume.org.

### **Exhibitors**

### Exhibitor listing as of 2/24/10

South Atlantic LLC Table #8

South Atlantic LLC is your premier source for hot dip galvanizing services and products. With five locations throughout the U.S. they are able to provide rapid, quality coating service for manufactures and fabricators. Their manufacturing operations have galvanized steel products, reinforcing bar, lintels, and ground rods and accessories in stock and ready for immediate shipment nationwide. South Atlantic Galvanizing will present "Recent Research on Galvanized Rebar" on Monday, March 22nd at 12:00 noon in the River Exhibit Hall. For additional information on our products, stop by our table or visit www.southatlanticllc.com.

#### **Superior Gunite**

Booth #7

Superior Gunite has been in the gunite/shotcrete industry for over 50 years. Superior Gunite began with the very first pier repairs in the 1940s, and continue to develop and improve structural shotcrete. Superior Gunite consistently continues to meet the demanding challenges faced in construction today to remain the leader in the shotcrete marketpace with top quality work and on-time completion. In an industry where there is no substitute for experience, our company has an outstanding record. Contact Ron Federico at Ron.Federico@shotcrete.com for more information. Observe a demonstration of shotcrete installation on Tuesday, March 23rd at 2:15 pm in the River Exhibit Hall.

#### **Taylor & Francis**

Booth #12

CRC Press & Routledge, members of the Taylor & Francis Group, are premier publishers of books, journals, and electronic databases in the field of civil engineering. Stop by the booth to peruse our latest offerings, pick up a free sample journal, and take advantage of special show offers.

Tekla, Inc. Booth #9

Tekla Structures is a Building Information Modeling (BIM) solution for concrete contractors, rebar detailers, and structural engineers. Tekla Structures provides a model-based solution where construction details are stored on 3D models. Details include concrete shapes, mix information rebar types, quantities and more. Drawings are generated automatically from the model. Stop by Tekla's demonstration of BIM for the concrete industry on Monday, March 22nd at 12:45 pm in the River Exhibit Hall. For more information, visit www.tekla.com.

### **Exhibitors**

### Exhibitor listing as of 2/24/10

### Tilt-Up Design Systems, LLC

Table #6

Tilt-Up Design Systems, LLC is a technology company providing a SaaS application, Tilt-Werks, that creates a complete tilt-up wall panel design from dimensional and engineering input. For additional information, visit www.tilt-werks.com.

# University Transportation Center for Materials in Sustainable Transportation Infrastructure (UTC-MiSTI) at Michigan Technological University Table #9

The University Transportation Center for Materials in Sustainable Transportation Infrastructure (UTC-MiSTI) at Michigan Technological University conducts research, education, technology transfer, and workforce development to meet state and national transportation agency needs related to the construction and maintenance of infrastructure utilizing materials including portland cement concrete, geopolymer concrete, and supplementary cementious materials.

Learn more about the University Transportation Center for Materials in Sustainable Transportation Infrastructure at our presentation on Tuesday, March 23rd at 10:30 am in the River Exhibit Hall.

### **Vector Corrosion Technologies**

Booth #13

Vector Corrosion Technologies offers a portfolio of solutions for concrete corrosion repair and protection that includes electrochemical chloride extraction, cathodic protection, and an array of galvanic protection systems, including embedded galvanic anodes, galvanic jackets, and activated arc-spray zinc metalizing. Vector also provides evaluation, repair, and mitigation services for post-tension corrosion and temperature-resistant composite strengthening systems.

Attend Vector's demonstration on Monday, March 22nd at 9:00 am

Attend Vector's demonstration on Monday, March 22nd at 9:00 am in the River Exhibit Hall. Contact Vector at 813-830-7566 or visit www.vector-corrosion.com.

### Wiss, Janney, Elstner Associates, Inc.

Booth #36

Wiss, Janney, Elstner Associates, Inc. (WJE) is an interdisciplinary architectural, engineering, and materials sciences firm specializing in investigation, analysis, and repair design services for historic and contemporary concrete buildings and structures. With more than 70,000 completed assignments, WJE is positioned as the industry leader in concrete problem solving. For additional information, visit www.wje.com.



Exhibitors will demonstrate the capabilities of their company on Monday and Tuesday, March 22 and 23, from 9:00 am to 3:30 pm, in the River Exhibit Hall.

| Monday Exhibitor Demonstration Schedule |                                  |   |  |
|---|----------------------------------|---|--|
| Time                                    | Exhibitor                        | Presentation/Demo Title   |  |
| 9:00 am                                 | Vector Corrosion<br>Technologies | XMesh Gold cementitious fibre-<br>reinforced structural strengthening |  |
| 9:45 am                                 | QuakeWrap Inc.                   | SuperLaminates <sup>™</sup> , the next Generation of FRP              |  |
| 10:30 am                                | BASF Construction<br>Chemicals   | Introducing a revolutionary workability admixture                     |  |
| 11:15 am                                | Kryton                           | Integral waterproofing using KIM crystallization admixtures           |  |
| 12:00 pm                                | South Atlantic LLC               | Recent research on galvanized rebar                                   |  |
| 12:45 pm                                | Tekla Inc.                       | BIM for the concrete industry   |  |
| 1:30 pm                                 | Proceq                           | Introducing the new SilverSchmidt concrete test hammer                |  |
| 2:15 pm                                 | GSSI                             | Introduction to ground penetrating radar for concrete inspection      |  |
| 3:00 pm                                 | Engius LLC                       | IntelliRock and concrete maturity                                     |  |

| Tuesday Exhibitor Demonstration Schedule |   |   |  |
|--|---|---|--|
| Time                                     | Exhibitor                               | Presentation/Demo Title   |  |
| 9:00 am                                  | Germann Instruments                     | Latest NDT systems and their applications   |  |
| 9:45 am                                  | Atlas Restoration LLC                   | Slab stabilization with polyurethane foam   |  |
| 10:30 am                                 | Michigan<br>Technological<br>University | University Transportation Center for<br>Materials in Sustainable Transportation<br>Infrastructure (UTC-MiSTI) program<br>highlights |  |
| 11:15 am                                 | Erico                                   | LENTON and LENTON LOCK product demonstration  |  |
| 12:45 pm                                 | Olson Engineering and Instruments       | Sonic, radar, and electrical methods for imaging concrete and rebar   |  |
| 1:30 pm                                  | James Instruments Inc.                  | NDT testing—equipment and applications  |  |
| 2:15 pm                                  | Superior Gunite                         | Shotcrete installation  |  |

# Special Events Sunday, March 21, 2010

Convention #1 Breakfast 8:00 am-9:00 am **CHICAGO 8** 

Sponsored by the ACI Convention Committee

Session Moderator: Kari Yuers

President & CEO

Kryton International, Inc. Vancouver, BC, Canada

First-time convention attendees are invited to join Kari Yuers, Chair of the ACI Convention Committee, for a continental breakfast and a brief session on convention activities. Attendees will have the opportunity to meet other convention attendees and learn about the events to be held in the week ahead.

### Sunday, March 21, 2010

## Student Pervious Concrete and FRC Bowling Ball Competitions 11:00 am-5:00 pm

RIVER EXHIBIT HALL

Pervious Concrete Competition—sponsored by ACI Committee S801, Student Activities, the ACI Illinois Chapter, the Center for Maximum Potential Building Systems (CMPBS), and the U.S. Green Building Council® (USGBC®)

FRC Bowling Ball Competition—sponsored by ACI Committees 544, Fiber Reinforced Concrete, S801, Student Activities and the ACI Illinois Chapter







Thank you to Humboldt and Forney for donating the compression machines to be used in these competitions. Also, special thanks to Flood Testing Laboratories for transportation of the Humboldt machine.

Session Moderator:

Lawrence H. Taber Structural Engineer Black & Veatch Kansas City, MO

ACI's nationally recognized student competitions offer students the opportunity to participate in interesting and educational concrete projects. This spring, students will compete in two competitions: the FRC Bowling Ball Competition and, for the very first time, the Pervious Concrete Competition. During the FRC Bowling Ball Competition, students will design and construct a fiberreinforced concrete bowling ball



that will achieve optimal performance under specified failure criteria and develop a fabrication process that produces a radial uniform density while maximizing volume. For the Pervious Concrete Competition, students will compete to create a pervious concrete specimen that maximizes permeability while maintaining a good splitting tensile strength. Come cheer on your favorite team during these spirited competitions!

### Sunday, March 21, 2010

Opening Session & Awards Program 5:15 pm-6:30 pm

CHICAGO 6&7



The ACI Spring 2010 Convention officially begins at the Opening Session. Here, ACI will recognize different individuals and groups for their contributions to ACI and achievements in the concrete industry. A full listing of awardees is listed on pages 97-99.

Opening Reception 6:30 pm

**RIVER EXHIBIT HALL** 

Sponsored by the ACI Illinois Chapter

After the Opening Session, make your way to the exhibit hall to enjoy a beverage from a cash bar and light refreshments. What a great place to catch up with friends, network with concrete professionals, talk with exhibitors, and meet new convention attendees! This is a networking opportunity you won't want to miss!

Following the Opening Reception, experience one of Chicago's fine restaurants. Visit the ACI Illinios Chapter Desk for suggestions.

### Sunday, March 21, 2010

### Student and Young Professional Networking Event 9:00 pm-10:30 pm

CHI BAR

Sponsored by the ACI Collegiate Concrete Council and the Student and Young Professional Activities Committee

The ACI Collegiate Concrete Council and the Student and Young Professional Activities Committee invite all convention attendees to the Student and Young Professional Networking Event. Meet fellow students and young professionals while networking with ACI members in a fun and casual environment. Attendees to the event will be entered into a drawing for door prizes. In addition, the bar will be open for attendees desiring to purchase beverages and/or appetizers.



### Monday, March 22, 2010

✓ Student Lunch 12:00 pm-2:00 pm CHICAGO 6&7

\$50 U.S. per person; FREE to students who preregistered Sponsored by Baker Concrete Construction, Inc.



Coordinated by the ACI Illinois Chapter and ACI Committee S801, Student Activities

Speaker: George Tuhowski, III

General Superintendent and Director of Sustainability Leopardo Companies Hoffman Estates, IL



Topic: The Importance of Sustainable Design

Following lunch, the results of the Student Competitions will be announced. Then, featured speaker George Tuhowski III, LEED AP and General Superintendent and Director of Sustainability at Leopardo Companies, will discuss the importance of sustainable design and the significance of thinking "green" when designing future structures. Recently completed LEED projects in Chicago will be highlighted.

### Monday, March 22, 2010

✓ Reception Honoring Tony Fiorato
 5:30 pm-7:00 pm
 \$35 U.S. per person
 Sponsored by the ACI Illinois Chapter

CHICAGO 9

Please join the ACI Illinois Chapter in honoring Tony Fiorato for his numerous contributions and accomplishments. Fiorato has served the industry in many ways, most notably as President of ACI during the centennial year and as Chairman of the Board of ASTM. He has been recognized as a Fellow of ACI; awarded the ACI Illinois Chapter's



prestigious Henry Crown Award, the ACI Henry L. Kennedy Award, and the ACI Henry C. Turner Medal; and recognized by the Reinforced Concrete Research Council with the Arthur J. Boase Award. In 2008, Fiorato was inducted into the National Academy of Engineering. His research in the area of high-strength concrete and concrete durability is widely recognized and highly respected. Perhaps his most notable contributions are his tireless efforts to promote usable, consistent codes and standards and share his knowledge worldwide. The purpose of this reception, in addition to the technical sessions in his honor, is to recognize him for his outstanding long-time selfless dedication to the concrete industry. Hors d'oeuvres and a cash bar will be available.

### Monday, March 22, 2010

✓ William R. Tolley Retirement Celebration 7:30 pm-10:00 pm \$90 U.S. per person CHICAGO 6&7

Join other ACI friends and colleagues for a celebration dinner and toast in honor of William R. (Bill) Tolley's retirement from ACI. Tolley started his career at the American Concrete Institute in 1975 as the Manager of Administrative Services. Later he served as Senior Managing Director in which he oversaw conventions, education, certification,



chapters, information technology and international activities. He was promoted to Executive Vice President in 2002.

Tolley is the President of the ACI Foundation and its three councils. In addition, he is the President of Creative Association Management (CAM), a subsidiary of ACI that manages other associations such as the International Concrete Repair Institute, American Shotcrete Association, Post-Tensioning Institute, and the Building Owners and Managers Association of Metropolitan Detroit (BOMA).

In addition to his service at ACI, he is the Chairman of the Concrete and Masonry Related Associations and has served as Treasurer, Board member, and Chair of the Finance and Administration Committee for the Council of Engineering and Scientific Society Executives (CESSE). Tolley is a Certified Association Executive and has been active in the American Society of Association Executives.

A Fellow of ACI, he received the ACI Henry L. Kennedy Award for his outstanding leadership in strengthening and expanding chapter activities. In 2006, he was named one of the 10 most influential people in the concrete industry.

Please join us in honoring Bill Tolley's dedication to and retirement from ACI during this very special event!

### Tuesday, March 23, 2010

✓ Contractors' Day Lunch 12:00 pm-2:00 pm \$55 U.S. per person CHICAGO 7

Hosted by the ACI Illinois Chapter and Construction Liaison Committee

Speaker: Bobby Hull

Retired Hockey Player Chicago Blackhawks

Sarasota, FL

Topic: A Shot and a Goal!

Memoirs of the Golden

Era of Hockey



Join other ACI attendees and contractors for the Contractors' Day Lunch featuring Hockey Hall of Famer, Bobby Hull. Bobby Hull is regarded as one of the greatest ice hockey players of all time and perhaps the greatest left winger to ever play the game. He possessed the most feared slapshot in his day. In his 23 years in the National Hockey League and World Hockey Association, he played for the Chicago Blackhawks, Winnipeg Jets, and Hartford Whalers. Hull will regal the audience with anecdotes from his multifaceted career.

### Tuesday, March 23, 2010

Concrete Mixer—The Blues!
6:30 pm-8:00 pm
Sponsored by the ACI Illinois Chapter

SHERATON CHICAGO 4-10

Chicago is known worldwide as the home of the Blues. Be inspired by the music that was made popular in Chicago during the 1940s and 1950s by artists such as Muddy Waters, Willie Dixon, John Lee Hooker, Howlin' Wolf, and Elmore James, during the Blues-themed Concrete Mixer at the Chicago convention! The perfect place to network and relax as you enjoy great music, a taste of Chicago, and cocktails (and maybe a surprise guest or two!), courtesy of the ACI Illinois Chapter.

All ACI attendees MUST wear a name badge to attend.

Please use the drink tickets found in your registration packet, or cash to purchase beverages.

Following the Concrete Mixer enjoy more great food at one of Chicago's spectacular eateries. Chicago is such a food lovers' paradise that the only dilemma you'll have is how to choose from so many delicious options. Visit the ACI Illinois Chapter Desk or the hotel concierge for suggestions.



### Wednesday, March 24, 2010

√International Lunch 12:00 pm-2:00 pm \$30 U.S. per person CHICAGO 7

Hosted by the ACI International Committee

Speaker: Vincent Mages

Vice President of Climate Change

Initiatives Lafarge Cement Paris, France



Topic: World Business Council for

Sustainable

Development Cement (WBCSD)

Sustainability Initiative

Join other ACI attendees for a special presentation from Vincent Mages at the International Lunch. Vincent Mages is the Vice President of Climate Change Initiatives at Lafarge Cement. Prior to this role, he was the Vice President of Group Internal Communications. Mr. Mages has occupied various positions in France and Japan, all which have been related to cement, aggregates, and gypsum activities, as well as in marketing business development and strategy. During his presentation, he will highlight the cement industry global initiatives to reduce CO<sub>2</sub>, the WBCSD Cement Sustainability Initiative, and the role of cement and concrete in sustainable construction.

### Thursday, March 25, 2010

✓ ACI/PCA Simplified Design of Concrete Buildings of Moderate Size and Height Seminar 7:30 am Registration, coffee and pastries available 8:00 am-5:00 pm \$597 Non-Member Registration Fee \$457 ACI National Members Registration Fee \$125 Full-Time Students (with proof of enrollment)

**ONTARIO** 

Speakers:

Mahmoud Kamara Senior Structural Engineer Portland Cement Association Skokie, IL



Lawrence C. Novak Manager – Building Structures Portland Cement Association Skokie, IL



This one-day seminar will focus on the design of concrete buildings of moderate size and height, in accordance with the latest information in ACI 318-08, 2009 IBC, and ASCE 7-05. The purpose of this seminar is to provide civil, architectural, and structural engineers with ways to simplify design procedures, thus reducing the time required to analyze, proportion, and detail small to moderate size projects while still complying with ACI 318-08, "Building Code Requirements for Structural Concrete." Various design considerations that need to be addressed in the structural design and detailing of reinforced concrete buildings will be discussed. Numerous time-saving shortcuts and design aids will be introduced.

### **Guest Events**

### **Sunday-Wednesday**

√Guest Hospitality

**MICHIGAN A&B** 

Continental Breakfast 7:00 am-10:00 am

Open to individuals who registered for the guest program ONLY.

Guest Suite 10:00 am-5:00 pm **SUITE 829** 

Sunday, March 21, 2010

Guest Overview 8:00 am-9:00 am **MICHIGAN A&B** 

Acquaint yourself with the week ahead! You'll also get a preview of the guest programs for the ACI Fall 2010 Convention in Pittsburgh and the ACI Spring 2011 Convention in Tampa.

### Monday, March 22, 2010

**Guest Tea** 

CHICAGO 6&7

3:30 pm-5:00 pm

Please join Mrs. Lori Barth for afternoon tea. This is a wonderful opportunity to get to know other registered guests and enjoy a refreshing break! A guest name badge is required to attend this event.



### **Tours**

Tour tickets may be purchased until 24 hours prior to the event based on availability.

All tours (except Aqua) will depart from the convention entrance.

### Sunday, March 21, 2010

√Wonderful Town Tour 9:30 am-1:00 pm \$43 U.S. per person

You'll see the important architecture and public art in the Chicago Loop, including the Merchandise Mart, Board of Trade, and Louis Sullivan's Auditorium Building from the motor coach. Then you'll rise 103 stories to the Willis Tower Skydeck for a completely different perspective of the city. Back at street level, you'll ride through Chicago's lakefront museums, Navy Pier, and breathtaking skyline. North of the Loop, you'll see the Magnificent Mile and Lincoln Park, then head west to see Oprah Winfrey's Harpo Studios, Greektown, many other landmarks and, finally, Hyde Park and the University of Chicago. Lunch is not included on this tour.

### Monday, March 22, 2010

✓A Place in Time: The History and Architecture of Oak Park and River Forest 9:00 am-3:00 pm \$113 U.S. per person

At the turn of the century, the Chicago area was to become the living canvas for the spectacular work of Frank Lloyd Wright and his contemporaries. The natural landscape of Oak Park and River Forest was the setting for this revolution in Modern American Residential style. During this tour, you will visit the Frank Lloyd Wright home and studio, and Wright's first public building, the Unity Temple. Next, you'll tour the Ernest Hemingway home and museum. This day will include lunch at a historic café in old Oak Park. Climbing stairs is required for this tour.



√=separate fee required

### **Tours**

Tour tickets may be purchased until 24 hours prior to the event based on availability.

All tours (except Aqua) will depart from the convention entrance.

### Monday, March 22, 2010 (cont.)

Aqua Building Presentation and Tour Tour 1: 12:00 pm-1:30—SOLD OUT

Tour 2: 12:30 pm-2:00 pm—Registration Required

Meet at the Aqua Building—225 North
Columbus Drive (approximately 4 blocks
from Sheraton)
Coordinated by ACI Committee 124,

Concrete Aesthetics

Take a tour of Aqua and hear from James McHugh Construction about how this striking



new concrete tower was built. Aqua is an 82-story mixed-use residential skyscraper. To capture views of nearby landmarks, the architect stretched Aqua's balconies outward, resulting in the building's wave-like forms and irregularly shaped concrete floor slabs. Note: The roof will be accessed by a fixed ladder. Please dress appropriately.

### Tuesday, March 23, 2010

√Tour of Metropolitan Water Reclamation District Construction Upgrade

7:00 am-12:00 pm

\$25 U.S. per person

The Metropolitan Water Reclamation District (MWRD) of Greater Chicago is currently constructing a large upgrade in its sewage treatment facilities to increase the capacity of its Calumet plant, located on the south side of the city. Construction began in January 2009 and is expected to continue through the fall of 2012. The district construction upgrade consists of 12 155 foot diameter primary settling tanks, an enclosed aerated grit removal facility, twin 96-inch diameter force mains, service tunnels, effluent conduits, utility relocation/replacement, and other appurtenances. A guided tour of the construction site will be given by both MWRD and contractor staff. A valid photo ID such as a driver's license, state ID card, or passport must be provided to enter the plant facilities. Appropriate footwear (no open-toed shoes) is required.

### **Tours**

Tour tickets may be purchased until 24 hours prior to the event based on availability.

All tours (except Aqua) will depart from the convention entrance.

### Tuesday, March 23, 2010 (cont.)

√ Great Tastes of Chicago 9:00 am-2:00 pm \$103 U.S. per person

Chicago is a Mecca for great chefs and outstanding food. Forget your diet and save your appetite for a day filled with mouth-watering treats during this incredible culinary tour. This tour will include a visit to an old-time ethnic bakery, an artisanal cheese maker, a unique chocolate shop, and lunch at one of Chicago's dynamic culinary schools. Additional stops include a spice shop and a specialty olive oil and



vinegar store. Please note that the use of stairs is required on this tour.

### Wednesday, March 24, 2010

√Chicago Architecture Tour 8:45 am-1:00 pm

\$69 U.S. per person

On foot, we'll tour Chicago's new and renewed buildings along Dearborn Street, including Daley Plaza with its landmark Picasso and surrounding State of Illinois and Chase Bank plazas filled with large-scale sculptures and murals that energize Chicago's Loop. A cruise of the Chicago River and Lake Michigan is the most unique and interesting way to see the city. On this narrated 90-minute Lake and River Cruise, we'll see the best of Chicago's historic and stateof-the-art architecture and learn why Chicago is known as the "Architectural Capitol of the World." Please note that the cruise sails rain or shine, so please dress in appropriate attire. Stairs are required to reach the cruise boat. If for some reason the Coast Guard cancels the cruise due to high seas, the time will be spent visiting several architecturally significant buildings and exhibits, including the Rookery, Chicago Architecture Foundation, and the Chicago History Museum. Finally, we'll visit Millennium Park, a 26-acre park that features an ice rink, a 1500-seat indoor theatre for music and dance, the 120 foot high, 3000-seat Jay Pritzker Music Pavilion designed by Frank Gehry, and so much more.

# Follow the ACI Convention on





## #aciconvention



All schedule and location changes will be posted daily in the River Exhibition Hall.

√ Separate fee required

TG = Task Group

### Friday, March 19, 2010

6:30 pm-9:00 pm

TAC Technical Activities M1 COLORADO

### Saturday, March 20, 2010

7:00 am-6:00 pm

TAC Technical Activities M2 COLORADO

1:00 pm-3:00 pm

562-D Eval Repair & Rehab - Struct Repair Design ARKANSAS

1:00 pm-5:00 pm

EAC Educational Activities M1 SUPERIOR A
301 Specifications M1 MICHIGAN A&B
562-F Evaluation Repair & Rehab - General OHIO

2:00 pm-6:00 pm

Registration RIVER EXHIBIT HALL

3:00 pm-5:00 pm

376 RLG Containment Structures M1 ARKANSAS

5:00 pm-9:00 pm

562-A Eval, Repair & Rehab - Life Safety ARKANSAS
 562-C Eval, Repair & Rehab - Structural Analysis SUPERIOR A

562-E Eval, Repair & Rehab - Durability Qlty

Assurance OHIO

7:00 pm-9:00 pm

347-A Formwork - Specification MISSOURI

### Sunday, March 21, 2010

7:00 am-8:30 am

301-SC Spec - Steering Committee COLUMBUS B

7:30 am-5:00 pm

Registration RIVER EXHIBIT HALL

8:00 am-9:00 am

562-B Eval, Repair & Rehab - Loads COLORADO 562-Co Eval, Repair & Rehab - Coordination Meeting ONTARIO

Convention #1 Breakfast CHICAGO 8

All schedule and location changes will be posted daily in the River Exhibition Hall.

√ Separate fee required

TG = Task Group

| Sunday, Ma | ırch 21, | 2010 ( | (cont.) |
|------------|----------|--------|---------|
|------------|----------|--------|---------|

| 8:00 am-9:30 am |
|-----------------|
|-----------------|

341-C Equake Res Brdgs-Retrofit ARKANSAS

#### 8:00 am-10:00 am

E706Repair Application ProceduresILLINOISS801Student ActivitiesSUPERIOR B506-AShotcreting - EvaluationPARLOR F

#### 8:00 am-10:30 am

CLC Construction Liaison OHIO

#### 8:00 am-11:00 am

TAC-RG5 TAC Review Group 5 PARLOR C
445-B Shear & Torsn - Seismic Shear PARLOR G

### 8:00 am-12:00 pm

TAC-RG1TAC Review Group 1PARLOR ATAC-RG2TAC Review Group 2PARLOR BTAC-RG3TAC Review Group 3PARLOR DTAC-RG4TAC Review Group 4PARLOR E

### 8:30 am-10:00 am

342 Bridge Evaluation ERIE

### 8:30 am-10:30 am

546-B Repair - Material Selection Guide SUITE 929
549-A Thin Reinforced - Glass Fiber-Reinforced

Concrete MISSISSIPPI

#### 8:30 am-11:30 am

MEMC Membership MISSOURI
315-B Detailing - Constructibility HURON
350-C Env Str - Reinf & Devel COLUMBUS B
408 Development and Splicing MAYFAIR
440-H FRP - Reinforced Concrete SUPERIOR A

### 8:30 am-12:00 pm

301 Specifications M2 CHICAGO 9

### 8:30 am-12:30 pm

347 Formwork CHICAGO 10

#### 9:00 am-11:00 am

551 Tilt-Up ONTARIO

All schedule and location changes will be posted daily in the River Exhibition Hall.

√ Separate fee required

TG = Task Group

### Sunday, March 21, 2010 (cont.)

9:30 am-1:00 pm

✓ Wonderful Town Tour DEPART CONVENTION ENTRANCE

9:00 am-5:00 pm

376 RLG Containment Structures M2 COLORADO

9:30 am-11:00 am

341-D Perf Based Seismic Design ARKANSAS

9:30 am-2:00 pm

Thin Reinforced CHICAGO 8

10:00 am-11:30 am

E701 Materials for Concrete Construction ILLINOIS
IC-Part International Partnerships & Publications PARLOR F

10:00 am-1:00 pm

228 Nondestructive Testing ERIE
421 Reinf Slabs SUPERIOR B

10:00 am-3:00 pm

301-F Spec - Precast Concrete Panels SUITE 830

10:30 am-11:30 am

546-C Repair - Guide SUITE 929

10:30 am-1:00 pm

370 Dynamic & Vibratory Effects OHIO

10:30 am-1:30 pm

445-A Shear & Torsn - Strut & Tie MISSISSIPPI

11:00 am-12:30 pm

341-A Equake Res Brdgs - Columns ARKANSAS

11:00 am-1:00 pm

506-G Qualifications for Projects ONTARIO

11:00 am-2:00 pm

TAC Technical Activities M<sub>3</sub> PARLOR C

All schedule and location changes will be posted daily in the River Exhibition Hall.

√ Separate fee required

TG = Task Group

### Sunday, March 21, 2010 (cont.)

### 11:00 pm-5:00 pm

Student Pervious Concrete and FRC

Bowling Ball Competitions RIVER EXHIBIT HALL

#### 11:30 am-1:00 pm

| HTC     | Hot Topic                                   | PARLOR G   |
|---------|---|------------|
| 221     | Aggregates                                  | MAYFAIR    |
| 335     | Composite Hybrid                            | MISSOURI   |
| 350-SC  | Env Str - Steering Comm                     | ILLINOIS   |
| 374-TG2 | Protocol for Testing RC Structural Elements | COLUMBUS B |
| 548-C   | Structural Polymer Design                   | SUITE 929  |
|         |   |            |

### 11:30 am-5:00 pm

562 Eval, Repair & Rehab SUPERIOR A

### 12:30 pm-2:00 pm

| 130-F | Social Issues               | PARLOR E |
|-------|-----------------------------|----------|
| 445-E | Shear & Torsn - SOA Torsion | PARLOR F |

### 12:30 pm-3:30 pm

301-H Spec -Tilt-Up Constr & Arch Conc HURON

#### 1:00 pm-3:00 pm

| 301-E | Spec - Prestressed Concrete    | PARLOR A |
|-------|--------------------------------|----------|
| 345   | Bridge Construction            | MAYFAIR  |
| 445-C | Shear & Torsn - Punching Shear | PARLOR G |

#### 1:00 pm-4:00 pm

BAC-SD Board Advisory Committee on Sustainable

Development MICHIGAN A&B

### 1:00 pm-5:00 pm

| 301-C | Spec - Placing Consolidating & Curing     | SUITE 929  |
|-------|---|------------|
| 301-D | Spec - Lightweight & Massive Concrete     | COLUMBUS B |
| 301-G | Spec - Shrink Comp Conc & Ind Floor Slabs | PARLOR B   |
| 336   | Footings                                  | ONTARIO    |
| 355   | Anchorage                                 | ERIE       |

#### 1:30 pm-3:00 pm

|       | 3                             |             |
|-------|-------------------------------|-------------|
| 209-A | Statistic Procedures          | LINCOLN     |
| 341-B | Equake Res Brdgs - Pier Walls | ARKANSAS    |
| 440-D | FRP - Research                | MISSISSIPPI |

All schedule and location changes will be posted daily in the River Exhibition Hall.

√ Separate fee required

TG = Task Group

### Sunday, March 21, 2010 (cont.)

| 1:20 | pm-5:00   | nm   |
|------|-----------|------|
| 1.30 | PIII 3.00 | PIII |

350-E Env Str - Precast/Prestressed PARLOR D

2:00 pm-3:00 pm

506-B Shotcreting - Fiber Reinforced CHICAGO 8 548-TG Polymers - TG PARLOR E

2:00 pm-3:30 pm

C650 Tilt-Up Constructor Cert OHIO

236-B Material Science - Transport Mechanisms COLUMBUS A

2:00 pm-4:00 pm

215 Fatigue ILLINOIS 305 Hot Weather CHICAGO 9

2:00 pm-5:00 pm Sessions

Durability and Long-Term Performance of SCC SHERATON 2

Durability for Concrete of Pavements SHERATON 1

Incorporating the ASCE Body of Knowledge SHERATON 5

Innovations in Fire Design of Concrete

Structures SHERATON 4

Ultra High-Performance Concrete for Bridges SHERATON 3

2:00 pm-5:00 pm

RCC Responsibility PARLOR C
309 Consolidation PARLOR F
315 Detailing CHICAGO 10
352 Joints SUPERIOR B

2:30 pm-5:00 pm

224 Cracking MISSOURI

3:00 pm-4:30 pm

441-E Columns Multi-Spiral Reinf PARLOR A

All schedule and location changes will be posted daily in the River Exhibition Hall.

√ Separate fee required

TG = Task Group

OHIO

### Sunday, March 21, 2010 (cont.)

| 3:00 | pm-5:00 | DM |
|------|---------|----|
|      |         |    |

| E601    | Seminar Oversight Committee          | SUITE 830   |
|---------|--------------------------------------|-------------|
| 121     | Quality Assurance                    | LINCOLN     |
| 201-A   | Durability - Sulfate Attack          | MAYFAIR     |
| 341     | Earthquake Resistant Bridges         | CHICAGO 8   |
| 423/445 | Adhoc Grp on Shear in Prestress Conc | PARLOR G    |
| 440-L   | FRP - Durability                     | MISSISSIPPI |
| 550     | Precast Structures                   | ARKANSAS    |

#### 3:30 pm-5:00 pm

| Intl-Cert | International Certification          | COLUMBUS A |
|-----------|--------------------------------------|------------|
| 236-D     | Material Science - Nanotechnology of |            |
|           | Concrete M1                          | HURON      |

### 4:00 pm-5:00 pm

439-A

Steel Reinf - Wire

| S805 | Collegiate Concrete Council | ILLINOIS     |
|------|-----------------------------|--------------|
| 123  | Research                    | MICHIGAN A&B |

### 5:15 pm-6:30 pm

Opening Session & Awards Program CHICAGO 6&7

#### 6:30 pm-7:30 pm

Opening Reception RIVER EXHIBIT HALL

#### 7:30 pm-10:00 pm

123 Forum: Fly Ash Contributes to Sustainable Concrete Construction – Is It Justified to Reclassify the Material as a

Hazardous Waste? SHERATON 3

### 9:00 pm-10:30 pm

Student and Young Professional Networking

Event CHI BAR

All schedule and location changes will be posted daily in the River Exhibition Hall.

√ Separate fee required

TG = Task Group

### Monday, March 22, 2010

6:30 am-8:15 am

Workshop for Technical Committee Chairs CHICAGO 6&7

7:00 am-8:30 am

Speaker Skills Training Breakfast: Teaching

Methods and Educational Materials CHICAGO 9

7:15 am-8:30 am

IC-Conf International Conferences PARLOR F

7:30 am-8:30 am

Chapter Forum ERIE

8:00 am-5:00 pm

Registration and Exhibits RIVER EXHIBIT HALL

8:15 am-10:00 am

351-B Grtng Fndns - Equip Machnry SUITE 929

8:30 am-9:30 am

343-B Bridge Deck Design SUITE 836

8:30 am-10:00 am

Teaching Methods and Educational Materials S802 PARLOR B 118 Computers PARLOR F 130-A Materials HURON Steel Reinforcement PARLOR C 439 FRP - Student OHIO 440-G **Plastering ERIE** 524 COLORADO FRC - Education 544-B

8:30 am-10:30 am

PUBC Publications LINCOLN 506-C Shotcreting - Guide SUITE 930

8:30 am-11:00 am

355-TG Anchorage TG ONTARIO 548-A Polymers - Overlays COLUMBUS A

All schedule and location changes will be posted daily in the River Exhibition Hall.

√ Separate fee required

TG = Task Group

|            | Monday, March 22, 2010 (cont.)                     |            |
|------------|--|------------|
| 8:30 am-11 | :30 am   |            |
| C610       | Field Technician Cert                              | CHICAGO 10 |
| 209        | Creep & Shrinkage                                  | SUITE 1029 |
| 311        | Inspection   | ARKANSAS   |
| 437        | Strength Evaluation                                | SUPERIOR A |
| 543        | Piles  | SUITE 830  |
| 546        | Repair   | CHICAGO 9  |
| 8:30 am-12 | 2:00 pm  |            |
| 301-A      | Spec - Gen Req, Definitions & Tolerances           | PARLOR A   |
| 301-B      | Spec - Formwork & Reinforcement                    | SUITE 936  |
| 362-A      | Parking Str - Standard                             | PARLOR D   |
| 8:30 am-12 | 2:30 pm  |            |
| 374        | Seismic Design                                     | MAYFAIR    |
| 8:30 am-1: | oo pm  |            |
| 302        | Floor Construction                                 | CHICAGO 8  |
| 350-B      | Env Str - Durability                               | PARLOR G   |
| 8:30 am-5: | оо рт  |            |
| 313        | Bins & Silos                                       | ILLINOIS   |
| 8:30 am-6: |  |            |
| 350-D      | Env Str - Structural                               | PARLOR E   |
| 9:00 am-11 |  |            |
| 365        | Service Life                                       | MISSOURI   |
| 9:00 am-12 | 2:00 pm <i>Sessions</i>                            |            |
|            | Extreme Tilt-Up Performance: Design to             |            |
|            | Construction, Part 1                               | SHERATON 2 |
|            | Recent Advances in Maintenance and                 |            |
|            | Repair of Concrete Bridges                         | SHERATON 5 |
|            | Research in Progress                               | SHERATON 1 |
|            | Technical Session in Honor of Tony Fiorato, Part 1 | SHERATON 4 |

SHERATON 3

Textile Reinforced Concrete—Modern

Developments, Part 1

All schedule and location changes will be posted daily in the River Exhibition Hall.

√ Separate fee required

TG = Task Group

### Monday, March 22, 2010 (cont.)

9:00 am-1:00 pm

423 Prestressed SUPERIOR B

9:00 am-3:00 pm

✓A Place in Time: The History DEPART CONVENTION

Architecture of Oak Park and River Forest ENTRANCE

Architecture of Oak Park and River Forest

9:00 am-5:00 pm

376-TG RLG Containment Structures-TG M1 MISSISSIPPI

9:30 am-3:30 pm

Exhibitor Demostrations RIVER EXHIBIT HALL

9:30 am-10:30 am

343-A Design SUITE 836

10:00 am-11:00 am

130-B Production/Transport/Construction SUITE 929

10:00 am-11:30 am

440-K FRP - Material Characteristics PARLOR C

10:00 am-12:00 pm

445-D Shear & Torsn - Database PARLOR B

10:00 am-12:30 pm

349-C Nuclear Str - Anchorage HURON

10:00 am-1:00 pm

207Mass ConcreteERIE216Fire ResistanceOHIO232-AFly Ash - Use of Nat PozzolansPARLOR F

343 Bridge Design COLORADO

10:30 am-11:30 am

318-ETG 1 Slabs SUITE 836

10:30 am-12:00 pm

124 Aesthetics LINCOLN

10:30 am-12:30 pm

506-E Shotcreting - Specifications SUITE 930

All schedule and location changes will be posted daily in the River Exhibition Hall.

√ Separate fee required

TG = Task Group

| Monday, March 22, 20 | )10 (cont.) | ) |
|----------------------|-------------|---|
|----------------------|-------------|---|

| 11:00 | am-1:00   | pm   |
|-------|-----------|------|
| 44.00 | 4111 4.00 | PIII |

| 130-E | Design/Specifications/Codes/Regulations | MISSOURI   |
|-------|---|------------|
| 351   | Equip Foundations                       | ONTARIO    |
| 548-B | Adhesives in Concrete                   | COLUMBUS A |

### 11:30 am-1:00 pm

| 201-D | Durability - Oversight Committee | SUITE 830    |
|-------|----------------------------------|--------------|
| 304   | Measuring/Mix/Trans/Placing      | ARKANSAS     |
| 346   | CIP Pipe                         | SUITE 836    |
| 544-A | FRC - Production & Applications  | MICHIGAN A&B |

### 11:30 am-2:00 pm

| 314 | Simplified Design Buildings | CHICAGO 10 |
|-----|-----------------------------|------------|
| 441 | Columns                     | SUPERIOR A |
| 447 | Finite Element Analysis     | SUITE 1029 |

### 12:00 pm-1:30 pm

| Aqua Building Presentation and Tour 1 | MEET AT       |
|---------------------------------------|---------------|
| (SOLD OUT)                            | AQUA BUILDING |

#### 12:00 pm-2:00 pm

| ✓ Student Lunch | CHICAGO 6&7 |
|-----------------|-------------|
|-----------------|-------------|

### 12:30 pm-2:00 pm

| Aqua Building Presentation and Tour 2 | MEET AT       |
|---------------------------------------|---------------|
| (Registration Required)               | AQUA BUILDING |

#### 1:00 pm-2:30 pm

| Conc Transportation Const Insp | PARLOR A   |
|--------------------------------|--|
| ISO/TC 71 Advisory Cmte        | MAYFAIR  |
| Nondestructive Testing TG      | SUITE 936  |
| Env Str - Editorial            | SUITE 830  |
|                                | ISO/TC 71 Advisory Cmte<br>Nondestructive Testing TG |

### 1:00 pm-3:00 pm

### 1:00 pm-3:30 pm

| 375 | Design for Wind Loads | SUITE 929 |
|-----|-----------------------|-----------|
|     |                       |           |

#### 1:00 pm-4:00 pm

| 225 | Hydraulic Cements           | PARLOR D  |
|-----|-----------------------------|-----------|
| 232 | Fly Ash & Natural Pozzolans | CHICAGO 9 |
| 237 | Self-Consolidating Concrete | ONTARIO   |

60

All schedule and location changes will be posted daily in the River Exhibition Hall.

√ Separate fee required

TG = Task Group

| Monday, | March | 22, 2010 | (cont.) |
|---------|-------|----------|---------|
|---------|-------|----------|---------|

| 1:00 | pm-5:00 | pm |
|------|---------|----|
|      | J J     | P  |

| 301 | Specifications M <sub>3</sub> | SUPERIOR B |
|-----|-------------------------------|------------|
| 362 | Parking Structures            | HURON      |

### 1:30 pm-3:00 pm

| 440-J | FRP - Stay in Place Forms   | MICHIGAN A&B |
|-------|-----------------------------|--------------|
| 440-) | i Kr - Stay III Flace Forms | MICHIGAN AGD |

### 2:00 pm-3:00 pm

| ITG-6 | High-Strength Steel Reinforcement | PARLOR G   |
|-------|-----------------------------------|------------|
| SC0   | Scholarship Council M2            | SUITE 1537 |

### 2:00 pm-3:30 pm

| ACI 318/ | ACI | 318 | / |
|----------|-----|-----|---|
|----------|-----|-----|---|

| ASCE <sub>7</sub> | ACI 318/ASCE7 Coordination  | SUITE 836 |
|-------------------|-----------------------------|-----------|
| 231               | Early Age                   | OHIO      |
| 318-S             | Spanish Translation         | ERIE      |
| 544-E             | FRC - Mechanical Properties | PARLOR B  |

### 2:00 pm-5:00 pm Sessions

| on |
|----|
| 0  |

| Durability | SHERATON 5 |
|------------|------------|
|            |            |

### Extreme Tilt-Up Performance: Design to

| Construction, Part 2 | SHERATON 2 |
|----------------------|------------|
|                      |            |

### Serviceability Limit States for Concrete

| Structures | SHFRATON 1 |
|------------|------------|
|            |            |
|            |            |

### Technical Session in Honor of Tony

| Fiorato, Part 2 SHERAT |
|------------------------|
|------------------------|

### Textile Reinforced Concrete—Modern

| Deve | lopments, Part 2 | SHERATON 3 |
|------|------------------|------------|
|      |                  |            |

### 2:00 pm-5:00 pm

| 2.00 piii 5. | oo piii                                 |             |
|--------------|---|-------------|
| MKTC         | Marketing                               | LINCOLN     |
| 130          | Sustainability M1                       | CHICAGO 8   |
| 307          | Chimneys                                | SUITE 930   |
| 318-B        | Reinforcement & Development M1          | SUPERIOR A  |
| 349-A&B      | Nuclear Structures - Design & Materials | COLUMUS A&B |
| 364          | Rehabilitation                          | MISSOURI    |

All schedule and location changes will be posted daily in the River Exhibition Hall.

√ Separate fee required

TG = Task Group

### Monday, March 22, 2010 (cont.)

| 2.00 pili-0.00 pili | 2:00 | pm-6:00 | pm |
|---------------------|------|---------|----|
|---------------------|------|---------|----|

369 Seismic Rehab ARKANSAS 445 Shear & Torsion PARLOR C

### 2:00 pm-6:30 pm

Chemical Admixtures PARLOR F
Slabs on Ground CHICAGO 10

#### 2:30 pm-4:00 pm

533 Precast Panels MAYFAIR

#### 2:30 pm-5:00 pm

CAC Chapter Activities SUITE 1029

### 3:00 pm-4:00 pm

506-F Shotcreting - Underground SUITE 936

#### 3:00 pm-5:00 pm

373 Prestressed/Tendons PARLOR G

#### 3:00 pm-6:00 pm

440-F FRP - Repair Strengthening MICHIGAN A&B

### 3:30 pm-5:00 pm

211-P Guide for Selecting Proportions for

Pumpable Concrete PARLOR B
214 Strength Tests OHIO
318-L International Liaison SUITE 836
446 Fracture Mechanics SUITE 929

### 3:30 pm-6:00 pm

544-D FRC - Structural Uses ERIE

#### 3:30 pm-6:30 pm

350-J Env Str - Education SUITE 830 435 Deflection PARLOR A

#### 4:00 pm-6:00 pm

117-TG Tolerances Task Group COLORADO
201-E Salt Weathering/Salt Attack PARLOR D
Beer Garden RIVER EXHIBIT HALL

All schedule and location changes will be posted daily in the River Exhibition Hall.

√ Separate fee required

TG = Task Group

### Monday, March 22, 2010 (cont.)

4:30 pm-5:30 pm

236 Material Science ONTARIO

5:00 pm-6:00 pm

Women in ACI Reception MAYFAIR

5:00 pm-6:30 pm

E702Designing Concrete StructuresHURON318-TGFTGF - FoundationSUITE 836555RecycledSUPERIOR B

5:00 pm-7:00 pm

E703 Concrete Construction Practices SUITE 930

5:30 pm-7:00 pm

✓ Reception Honoring Tony Fiorato CHICAGO 9

7:30 pm-10:00 pm

√William R. Tolley Retirement Celebration CHICAGO 6&7

### Tuesday, March 23, 2010

7:00 am-8:30 am

TTTC TAC Technology Transfer MISSOURI

7:00 am-9:00 am

563-CExcavation/Surface PreparationSUITE 936563-FGMixtures/Placing/CuringSUITE 1029563-IProprietary Grouts/ConcretePARLOR A563-LPrestressed ConcreteMICHIGAN B

563-MN Polymer Concrete Overlays/

Protection Systems COLUMBUS A&B

7:00 am-12:00 pm

✓ Technical Tour of Metropolitan DEPART
Water District CONVENTION ENTRANCE

7:30 am-9:00 am

130-G Education/Certification MISSISSIPPI

8:00 am-10:00 am

211-CProportioning - No SlumpSUITE 930230Soil CementSUITE 830444Experimental AnalysisPARLOR E

All schedule and location changes will be posted daily in the River Exhibition Hall.

√ Separate fee required

TG = Task Group

### Tuesday, March 23, 2010 (cont.)

| 8:00 | am- | 10:30 | am |
|------|-----|-------|----|
|------|-----|-------|----|

325-A Pavements - Design PARLOR D

8:00 am-12:00 pm

EAC Educational Activities M2 PARLOR B

8:00 am-5:00 pm

Registration and Exhibits RIVER EXHIBIT HALL

#### 8:30 am-10:00 am

| C620  | Laboratory Tech Cert          | OHIO      |
|-------|-------------------------------|-----------|
| 238   | Workability of Fresh Concrete | SUITE 929 |
| 523-A | Cellular - Autoclaved Aerated | PARLOR C  |

#### 8:30 am-10:30 am

| IJBRC | Intl Joints & Bearings Research | COLORADO  |
|-------|---------------------------------|-----------|
| 318   | Building Code M1                | CHICAGO 6 |
| 357   | Offshore & Marine               | ILLINOIS  |
| 548   | Polymers                        | HURON     |

#### 8:30 am-11:30 am

| 8:30 am-11:30 am |                                     |            |  |
|------------------|-------------------------------------|------------|--|
| 201              | Durability                          | CHICAGO 10 |  |
| 306              | Cold Weather                        | ARKANSAS   |  |
| 348              | Safety                              | PARLOR G   |  |
| 350-G&K          | Env Str - Tightness Testing/Haz Mat | LINCOLN    |  |
| 440              | Fiber Reinforced Polymer            | CHICAGO 8  |  |
| 506              | Shotcreting                         | ERIE       |  |
| 522              | Pervious Concrete                   | CHICAGO 9  |  |
|                  |                                     |            |  |

### 8:30 am-12:00 pm

117 Tolerances MAYFAIR

8:30 am-12:30 pm

349 Nuclear Structures M1 SUPERIOR A&B

8:30 am-3:30 pm

350-F Env Str - Seismic PARLOR F

9:00 am-10:00 am

332-D Residential Concrete - Footings & Foundation

Walls ONTARIO

All schedule and location changes will be posted daily in the River Exhibition Hall.

√ Separate fee required

TG = Task Group

### Tuesday, March 23, 2010 (cont.)

9:00 am-10:30 am

Thermal Properties SUITE 836

9:00 am-11:00 am

563-H Architectural/Precast Concrete SUITE 1029
563-JK Crack Repair/External Reinforcement PARLOR A

563-P Corrosion COLUMBUS A&B

9:00 am-11:30 am

IC International Committee MISSISSIPPI

9:00 am-12:00 pm *Sessions* 

Advances in the Material Science of

Concrete, Part 1 SHERATON 1

Concrete Repair—Xtreme Conditions, Part 1 SHERATON 3

Design Using the Strut-and-Tie Method:

Examples and Approaches, Part 1 SHERATON 2

Extreme Concrete History SHERATON 4

Structural Health Monitoring for Bridge

Design and Evaluation SHERATON 5

9:00 am-12:00 pm

TRRC TAC Repair & Rehab SUITE 936

9:00 am-1:00 pm

ITG-8 Perform Criteria for Conc Matrls MICHIGAN B

9:00 am-2:00 pm

✓ Great Tastes of Chicago DEPART CONVENTION

ENTRANCE

9:00 am-3:30 pm

Exhibitor Demonstrations RIVER EXHIBIT HALL

9:00 am-5:00 pm

376-TG RLG Containment Structures TG M2 MISSOURI

All schedule and location changes will be posted daily in the River Exhibition Hall.

√ Separate fee required

TG = Task Group

| Tuesda | ay, Marcl | h 23, 2010 ( | cont.) |
|--------|-----------|--------------|--------|
|--------|-----------|--------------|--------|

| 10.00 | am-11:00 | am |
|-------|----------|----|
|       |          |    |

| 130-C | Structures in Service                    | OHIO    |
|-------|--|---------|
| 332-E | Residential Concrete - Above Grade Walls | ONTARIO |

#### 10:00 am-11:30 am

| C(00 | Construction Inspector Cort | PARLOR E |
|------|-----------------------------|----------|
| C630 | Construction Inspector Cert | PARLURE  |

#### 10:00 am-12:00 pm

| 211-A | Proportioning - Editorial | SUITE 830 |
|-------|---------------------------|-----------|
| 327   | RCC Pavements             | SUITE 929 |

#### 10:00 am-1:00 pm

| 371 | Elevated Tanks with Concrete Pedestals | SUIIE 930 |
|-----|--|-----------|
| 523 | Cellular Concrete                      | PARLOR C  |

#### 10:30 am-12:00 pm

| 325-C | Pavements - Prestressed and Precast | PARLOR D |
|-------|-------------------------------------|----------|
| 544-F | FRC - Durability                    | HURON    |

#### 11:00 am-12:00 pm

| 332-B&C | Residential | Concrete Materials & Placement | OHIO |
|---------|-------------|--------------------------------|------|
|         |             |                                |      |

#### 11:00 am-1:00 pm

| CRC | Concrete Research Council     | COLUMBUS A&B |
|-----|-------------------------------|--------------|
| 130 | Sustainability of Concrete M2 | CHICAGO 6    |

#### 11:30 am-1:00 pm

| 211-E  | Proportioning - Evaluation        | PARLOR E |
|--------|-----------------------------------|----------|
| 213-TG | Lightweight - Editorial TG        | PARLOR A |
| 223-D  | Shr Compensating - Non Reinforced |          |
|        | Concrete or Mortar                | LINCOLN  |

### 515 Protective Systems ERIE

#### 11:30 am-2:00 pm

| 552 | Cementitious Grouting | MISSISSIPPI |
|-----|-----------------------|-------------|
|-----|-----------------------|-------------|

### 11:30 am-3:30 pm

| 350-A | Env Str - General & Concrete | PARLOR G |
|-------|------------------------------|----------|
|       |                              |          |

#### 12:00 pm-2:00 pm

| ✓ Contractors' Da | y Lunch | CHICAGO 7 |
|-------------------|---------|-----------|
|-------------------|---------|-----------|

All schedule and location changes will be posted daily in the River Exhibition Hall.

√ Separate fee required

TG = Task Group

| Tuesday, | March | 23, | 2010 | (cont.) | ) |
|----------|-------|-----|------|---------|---|
|----------|-------|-----|------|---------|---|

| 12:20 | nm-2.00 | nm   |
|-------|---------|------|
| 12:30 | pm-2:00 | pill |

| C640 Craftsman Cert SUITE | E 1029 |
|---------------------------|--------|
|---------------------------|--------|

#### 1:00 pm-2:00 pm

| Shr Compensating - Constr    | ARKANSAS                    |
|------------------------------|-----------------------------|
| Proportioning for Pavements  | SUITE 929                   |
| Residential Concrete - Slabs | OHIO                        |
|                              | Proportioning for Pavements |

#### 1:00 pm-3:00 pm

| 00 p j. | 00 p                                 |              |
|---------|--------------------------------------|--------------|
| NPTF    | EAC New Programs Task Force          | SUPERIOR A&B |
| 201-C   | Durability - Condition Report        | SUITE 930    |
| 211-l   | Assessing Aggregate Gradation        | PARLOR D     |
| 236-D   | Material Science - Nanotechnology of |              |
|         | Concrete M2                          | PARLOR E     |
|         |                                      |              |

#### 1:00 pm-6:30 pm

| 318-A | General Concrete Constr | ILLINOIS   |
|-------|-------------------------|------------|
| 318-C | Serviceability/Safety   | MICHIGAN B |
| 318-H | Seismic Provisions      | MAYFAIR    |
| 318-R | Code Reorganization     | COLORADO   |

#### 1:30 pm-3:00 pm

| 120 | History     | MICHIGAN A   |
|-----|-------------|--------------|
| 213 | Lightweight | COLUMBUS A&B |

#### 2:00 pm-3:30 pm

| 234   | Silica Fume        | OHIO      |
|-------|--------------------|-----------|
| 325-E | Accelerated Paving | PARLOR A  |
| 544-C | FRC - Testing      | CHICAGO 6 |

#### 2:00 pm-4:00 pm

| 130-D | Rating Systems/Sustainabilty Tools | CHICAGO 8 |
|-------|------------------------------------|-----------|
| 211-F | Proportioning - Submittal          | SUITE 830 |

All schedule and location changes will be posted daily in the River Exhibition Hall.

√ Separate fee required

TG = Task Group

### Tuesday, March 23, 2010 (cont.)

2:00 pm-5:00 pm Sessions

Hot Topic Session: Reconstruction Efforts

in Haiti CHICAGO 9

Advances in the Material Science of

Concrete, Part 2 SHERATON 1

Concrete Repair—Xtreme Conditions, Part 2 SHERATON 3

Contractors' Day Session: Xtreme

Local Projects SHERATON 4

Design Using the Strut-and-Tie Method:

Examples and Approaches, Part 2 SHERATON 2

Open Paper Session SHERATON 5

#### 2:00 pm-5:00 pm

| CPC | Certification Programs                   | LINCOLN     |
|-----|--|-------------|
| 222 | Corrosion                                | HURON       |
| 223 | Shrinkage Compensating                   | MISSISSIPPI |
| 229 | Controlled Low Strength                  | PARLOR C    |
| 235 | Electronic Data Exchange                 | PARLOR B    |
| 310 | Decorative Concrete                      | SUITE 929   |
| 332 | Residential Concrete                     | ARKANSAS    |
| 349 | Nuclear Structures M2                    | CHICAGO 10  |
| 563 | Specs for Repair of Struct Conc in Bldgs | SUITE 1029  |

#### 2:00 pm-6:00 pm

233 Slag Cement ERIE

#### 3:00 pm-5:00 pm

CC Convention Committee M2 ONTARIO

211-N Proportioning with Ground Limestone

and Material Fillers PARLOR D

372 Prestressed/Wire Wrapped SUITE 930

#### 3:00 pm-6:00 pm

131 BIM PARLOR E

#### 3:30 pm-5:00 pm

363-A High-Strength Lightweight Concrete PARLOR A

All schedule and location changes will be posted daily in the River Exhibition Hall.

√ Separate fee required

TG = Task Group

### Tuesday, March 23, 2010 (cont.)

3:30 pm-5:30 pm

325 Pavements MICHIGAN A

3:30 pm-6:00 pm

544 Fiber-Reinforced Concrete SUPERIOR A&B

4:00 pm-6:00 pm

350-L Env Str - Specification PARLOR G

Beer Garden RIVER EXHIBIT HALL

4:30 pm-6:00 pm

308/213 Guide on Internal Curing OHIO

5:00 pm-6:00 pm

Faculty Network Reception COLUMBUS A&B

6:30 pm-8:00 pm

Concrete Mixer – The Blues! SHERATON CHICAGO 4-10

### Wednesday, March 24, 2010

7:00 am-8:30 am

ACI/ASCE ACI/ASCE Coordination MISSISSIPPI

7:00 am-9:00 am

SYPAC Student & Young Professional Activities ARKANSAS

7:00 am-10:00 am

TSC TAC Specifications OHIO

8:00 am-10:30 am

308-B Curing - Specifications SUITE 929

8:00 am-12:00 pm

Registration RIVER EXHIBIT HALL

8:00 am-1:30 pm

318-BReinforcement & Development M2HURON318-DFlexure & Axial LoadsCOLORADO318-EShear & TorsionMISSOURI318-GPrestressed PrecastERIE

All schedule and location changes will be posted daily in the River Exhibition Hall.

√ Separate fee required

TG = Task Group

### Wednesday, March 24, 2010 (cont.)

| 8:30 | am- | 11:30 | am |
|------|-----|-------|----|
|------|-----|-------|----|

211ProportioningCHICAGO 9303Architectural CIPCHICAGO 8330-TGParking Lots & Site Paving TGMISSISSIPPI363High-StrengthONTARIO560Design & Constr ICFsMAYFAIR

8:30 am-6:30 pm

350 Environmental Structures SUPERIOR A&B

8:45 am-1:00 pm

✓ Chicago Architecture Tour DEPART CONVENTION

ENTRANCE

9:00 am-11:00 am

329 Perf Ready Mixed CHICAGO 10

9:00 am-12:00 pm *Sessions* 

Building Information Modeling in the Concrete

Industry, Part 1 SHERATON 4

Frontiers in the Use of Polymers in

Concrete, Part 1 SHERATON 2

International Session: Tall Buildings SHERATON 1

Quality Management Systems in the Concrete

Industry SHERATON 5

What About Adhesive Anchors? Part 1 SHERATON 3

9:00 am-12:00 pm

ACIFdn ACI Foundation ILLINOIS

9:00 am-5:00 pm

376-TG RLG Containment Structures TG M3 ARKANSAS

10:00 am-12:30 pm

C601-B Concrete Quality Technical Mgr OHIO

10:30 am-1:00 pm

308-A Curing - Guide SUITE 929

All schedule and location changes will be posted daily in the River Exhibition Hall.

√ Separate fee required

TG = Task Group

### Wednesday, March 24, 2010 (cont.)

11:30 am-1:00 pm

C601-D Decorative Concrete Finisher

MAYFAIR

12:00 pm-2:00 pm

✓International Lunch

CHICAGO 7

1:00 pm-4:00 pm

330 Parking Lots & Site Paving

OHIO

2:00 pm-5:00 pm Sessions

**Building Information Modeling in the Concrete** 

Industry, Part 2 SHERATON 4

Frontiers in the Use of Polymers in

Concrete, Part 2 SHERATON 2

International Forum for International Chapters

and Partners SHERATON 1

Sustainable Design in Structural Concrete SHERATON 5

What About Adhesive Anchors? Part 2 SHERATON 3

2:00 pm-5:00 pm

308 Curing MAYFAIR

2:30 pm-6:30 pm

318 Building Code M2 CHICAGO 8

### Thursday, March 25, 2010

8:00 am-5:00 pm

✓ ACI/PCA Simplified Design of Reinforced Concrete

**Buildings of Moderate Size and Height** 

Seminar ONTARIO

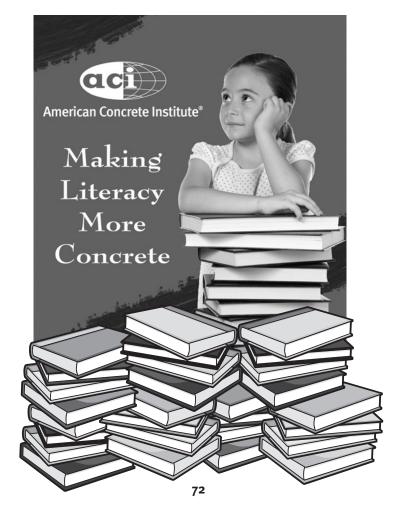
10:00 am-5:00 pm

BOD Board of Direction SHERATON 1

# ACI BOOK Drive Making Literacy More Concrete!

ACI is conducting a book drive during the ACI Spring 2010 Convention, in an effort to promote literacy. Bring a new or gently used book for children in grades K-12, to help us reach our goal of 1200 books! Donations may be made at the ACI Illinois Chapter Desk outside the River Exhibit Hall.

Donated books will be given to Book Worm Angels is a non-profit organization founded to help children in underachieving Chicago Public Schools strengthen their reading skills and develop a love for reading. Book Worm Angels helps to establish classroom lending libraries for recreational reading in an easily administered program involving principals, teachers, reading specialists, and parents/caregivers. To learn more about Book Worm Angels, visit www.bookangels.org.



| Code              | Committee  | Day | Time              | Room Name       |
|-------------------|--|-----|-------------------|-----------------|
| ACI 318/<br>ASCE7 | ACI 318/ASCE7<br>Coordination                                | Mon | 2:00 pm-3:30 pm   | SUITE 836       |
| ACI/<br>ASCE      | ACI/ASCE<br>Coordination                                     | Wed | 7:00 am-8:30 am   | MISSISSIPPI     |
| ACIFdn            | ACI Foundation   | Wed | 9:00 am-12:00 pm  | ILLINOIS        |
| BAC-SD            | Board Advisory<br>Committee on<br>Sustainable<br>Development | Sun | 1:00 pm-4:00 pm   | MICHIGAN A&B    |
| BOD               | Board of Direction   | Thu | 10:00 am-5:00 pm  | SHERATON 1      |
| C601-B            | Concrete Quality<br>Technical Mgr                            | Wed | 10:00 am-12:30 pm | ОНЮ             |
| C601-D            | Decorative<br>Concrete Finisher                              | Wed | 11:30 am-1:00 pm  | MAYFAIR         |
| C610              | Field Technician Cert  | Mon | 8:30 am-11:30 am  | CHICAGO 10      |
| C620              | Laboratory Tech Cert   | Tue | 8:30 am-10:00 am  | оню             |
| C630              | Construction<br>Inspector Cert                               | Tue | 10:00 am-11:30 am | PARLOR E        |
| C631              | Conc Transportation<br>Const Insp                            | Mon | 1:00 pm-2:30 pm   | PARLOR A        |
| C640              | Craftsman Cert   | Tue | 12:30 pm-2:00 pm  | SUITE 1029      |
| C650              | Tilt-Up Constructor<br>Cert                                  | Sun | 2:00 pm-3:30 pm   | ОНЮ             |
| C660              | Shotcrete<br>Nozzleman Cert                                  | Mon | 1:00 pm-3:00 pm   | COLORADO        |
| CAC               | Chapter Activities   | Mon | 2:30 pm-5:00 pm   | SUITE 1029      |
| СС                | Convention<br>Committee M2                                   | Tue | 3:00 pm-5:00 pm   | ONTARIO         |
| CLC               | Construction<br>Liaison                                      | Sun | 8:00 am-10:30 am  | ОНЮ             |
| СРС               | Certification<br>Programs                                    | Tue | 2:00 pm-5:00 pm   | LINCOLN         |
| CRC               | Concrete Research<br>Council                                 | Tue | 11:00 am-1:00 pm  | COLUMBUS<br>A&B |
| E601              | Seminar Oversight<br>Committee                               | Sun | 3:00 pm-5:00 pm   | SUITE 830       |
| E701              | Materials for<br>Concrete<br>Construction                    | Sun | 10:00 am-11:30 am | ILLINOIS        |
| E702              | Designing Concrete<br>Structures                             | Mon | 5:00 pm-6:30 pm   | HURON           |
| E703              | Concrete<br>Construction<br>Practices                        | Mon | 5:00 pm-7:00 pm   | SUITE 930       |
| E706              | Repair Application<br>Procedures                             | Sun | 8:00 am-10:00 am  | ILLINOIS        |

| Code         | Committee  | Day | Time              | Room Name    |
|--------------|--|-----|-------------------|--------------|
| EAC          | Educational<br>Activities M1                     | Sat | 1:00 pm-5:00 pm   | SUPERIOR A   |
| EAC          | Educational<br>Activities M2                     | Tue | 8:00 am-12:00 pm  | PARLOR B     |
| HTC          | Hot Topic  | Sun | 11:30 am-1:00 pm  | PARLOR G     |
| IC           | International<br>Committee                       | Tue | 9:00 am-11:30 am  | MISSISSIPPI  |
| IC-Conf      | International<br>Conferences                     | Mon | 7:15 am-8:30 am   | PARLOR F     |
| IC-Part      | International<br>Partnerships &<br>Publications  | Sun | 10:00 am-11:30 am | PARLOR F     |
| IJBRC        | Intl Joints &<br>Bearings Research               | Tue | 8:30 am-10:30 am  | COLORADO     |
| Intl-Cert    | International<br>Certification                   | Sun | 3:30 pm-5:00 pm   | COLUMBUS A   |
| ITG-6        | High-Strength Steel<br>Reinforcement             | Mon | 2:00 pm-3:00 pm   | PARLOR G     |
| ITG-8        | ITG-8 Perform<br>Criteria for Conc<br>Matrls     | Tue | 9:00 am-1:00 pm   | MICHIGAN B   |
| ISO/TC<br>71 | ISO/TC 71 Advisory<br>Cmte                       | Mon | 1:00 pm-2:30 pm   | MAYFAIR      |
| MEMC         | Membership                                       | Sun | 8:30 am-11:30 am  | MISSOURI     |
| MKTC         | Marketing  | Mon | 2:00 pm-5:00 pm   | LINCOLN      |
| NPTF         | EAC New Programs<br>Task Force                   | Tue | 1:00 pm-3:00 pm   | SUPERIOR A&B |
| PUBC         | Publications                                     | Mon | 8:30 am-10:30 am  | LINCOLN      |
| RCC          | Responsibility                                   | Sun | 2:00 pm-5:00 pm   | PARLOR C     |
| SCO          | Scholarship<br>Council M2                        | Mon | 2:00 pm-3:00 pm   | SUITE 1537   |
| SYPAC        | Student & Young<br>Professional<br>Activities    | Wed | 7:00 am-9:00 am   | ARKANSAS     |
| S801         | Student Activities                               | Sun | 8:00 am-10:00 am  | SUPERIOR B   |
| S802         | Teaching Methods<br>and Educational<br>Materials | Mon | 8:30 am-10:00 am  | PARLOR B     |
| S805         | Collegiate Concrete<br>Council                   | Sun | 4:00 pm-5:00 pm   | ILLINOIS     |
| TAC          | Technical Activities<br>M1                       | Fri | 6:30 pm-9:00 pm   | COLORADO     |
| TAC          | Technical Activities<br>M2                       | Sat | 7:00 am-6:00 pm   | COLORADO     |
| TAC          | Technical Activities<br>M3                       | Sun | 11:00 am-2:00 pm  | PARLOR C     |

| Code                | Committee                                       | Day | Time              | Room Name            |
|---------------------|---|-----|-------------------|----------------------|
| TACRG1              | TAC Review Group 1                              | Sun | 8:00 am-12:00 pm  | PARLOR A             |
| TACRG2              | TAC Review Group 2                              | Sun | 8:00 am-12:00 pm  | PARLOR B             |
| TACRG3              | TAC Review Group 3                              | Sun | 8:00 am-12:00 pm  | PARLOR D             |
| TAC-RG4             | TAC Review Group 4                              | Sun | 8:00 am-12:00 pm  | PARLOR E             |
| TAC-RG <sub>5</sub> | TAC Review Group 5                              | Sun | 8:00 am-11:00 am  | PARLOR C             |
| TRRC                | TAC Repair &<br>Rehab                           | Tue | 9:00 am-12:00 pm  | SUITE 936            |
| TSC                 | TAC Specifications                              | Wed | 7:00 am-10:00 am  | ОНЮ                  |
| ттс                 | TAC Technology<br>Transfer                      | Tue | 7:00 am-8:30 am   | MISSOURI             |
| 117                 | Tolerances                                      | Tue | 8:30 am-12:00 pm  | MAYFAIR              |
| 117-TG              | Tolerances Task<br>Group                        | Mon | 4:00 pm-6:00 pm   | COLORADO             |
| 118                 | Computers                                       | Mon | 8:30 am-10:00 am  | PARLOR F             |
| 120                 | History   | Tue | 1:30 pm-3:00 pm   | MICHIGAN A           |
| 121                 | Quality Assurance                               | Sun | 3:00 pm-5:00 pm   | LINCOLN              |
| 122                 | Thermal Properties                              | Tue | 9:00 am-10:30 am  | SUITE 836            |
| 123                 | Research  | Sun | 4:00 pm-5:00 pm   | MICHIGAN A&B         |
| 124                 | Aesthetics                                      | Mon | 10:30 am-12:00 pm | LINCOLN<br>BOARDROOM |
| 130                 | Sustainability M1                               | Mon | 2:00 pm-5:00 pm   | CHICAGO 8            |
| 130                 | Sustainability M2                               | Tue | 11:00 am-1:00 pm  | CHICAGO 6            |
| 130-A               | Materials                                       | Mon | 8:30 am-10:00 am  | HURON                |
| 130-B               | Production/<br>Transport/<br>Construction       | Mon | 10:00 am-11:00 am | SUITE 929            |
| 130-C               | Structures in<br>Service                        | Tue | 10:00 am-11:00 am | ОНЮ                  |
| 130-D               | Rating Systems/<br>Sustainabilty Tools          | Tue | 2:00 pm-4:00 pm   | CHICAGO 8            |
| 130-E               | Design/<br>Specifications/<br>Codes/Regulations | Mon | 11:00 am-1:00 pm  | MISSOURI             |
| 130-F               | Social Issues                                   | Sun | 12:30 pm-2:00 pm  | PARLOR E             |
| 130-G               | Education/<br>Certification                     | Tue | 7:30 am-9:00 am   | MISSISSIPPI          |
| 131                 | BIM   | Tue | 3:00 pm-6:00 pm   | PARLOR E             |
| 201                 | Durability                                      | Tue | 8:30 am-11:30 am  | CHICAGO 10           |
| 201-A               | Durability-Sulfate<br>Attack                    | Sun | 3:00 pm-5:00 pm   | MAYFAIR              |
| 201-C               | Durability-Condi-<br>tion Report                | Tue | 1:00 pm-3:00 pm   | SUITE 930            |

| Code   | Committee  | Day | Time              | Room Name       |
|--------|--|-----|-------------------|-----------------|
| 201-D  | Durability-Over-<br>sight Committee                            | Mon | 11:30 am-1:00 pm  | SUITE 830       |
| 201-E  | Salt Weathering/<br>Salt Attack                                | Mon | 4:00 pm-6:00 pm   | PARLOR D        |
| 207    | Mass Concrete  | Mon | 10:00 am-1:00 pm  | ERIE            |
| 209    | Creep & Shrinkage  | Mon | 8:30 am-11:30 am  | SUITE 1029      |
| 209-A  | Statistic<br>Procedures  | Sun | 1:30 pm-3:00 pm   | LINCOLN         |
| 211    | Proportioning  | Wed | 8:30 am-11:30 am  | CHICAGO 9       |
| 211-A  | Proportioning-<br>Editorial                                    | Tue | 10:00 am-12:00 pm | SUITE 830       |
| 211-C  | Proportioning-<br>No Slump                                     | Tue | 8:00 am-10:00 am  | SUITE 930       |
| 211-E  | Proportioning-<br>Evaluation                                   | Tue | 11:30 am-1:00 pm  | PARLOR E        |
| 211-F  | Proportioning-<br>Submittal                                    | Tue | 2:00 pm-4:00 pm   | SUITE 830       |
| 211-   | Assessing<br>Aggregate<br>Gradation                            | Tue | 1:00 pm-3:00 pm   | PARLOR D        |
| 211-N  | Proportioning with<br>Ground Limestone<br>and Material Fillers | Tue | 3:00 pm-5:00 pm   | PARLOR D        |
| 211-P  | Guide for Selecting<br>Proportions for<br>Pumpable Concrete    | Mon | 3:30 pm-5:00 pm   | PARLOR B        |
| 212    | Chemical<br>Admixtures   | Mon | 2:00 pm-6:30 pm   | PARLOR F        |
| 213    | Lightweight  | Tue | 1:30 pm-3:00 pm   | COLUMBUS<br>A&B |
| 213-TG | Lightweight-<br>Editorial TG                                   | Tue | 11:30 am-1:00 pm  | PARLOR A        |
| 214    | Strength Tests   | Mon | 3:30 pm-5:00 pm   | ОНЮ             |
| 215    | Fatigue  | Sun | 2:00 pm-4:00 pm   | ILLINOIS        |
| 216    | Fire Resistance  | Mon | 10:00 am-1:00 pm  | ОНІО            |
| 221    | Aggregates   | Sun | 11:30 am-1:00 pm  | MAYFAIR         |
| 222    | Corrosion  | Tue | 2:00 pm-5:00 pm   | HURON           |
| 223    | Shrinkage<br>Compensating                                      | Tue | 2:00 pm-5:00 pm   | MISSISSIPPI     |
| 223-C  | Shr Compensating-<br>Constr                                    | Tue | 1:00 pm-2:00 pm   | ARKANSAS        |
| 223-D  | Shr Compensating-<br>Non Reinforced<br>Concrete or Mortar      | Tue | 11:30 am-1:00 pm  | LINCOLN         |
| 224    | Cracking   | Sun | 2:30 pm-5:00 pm   | MISSOURI        |

| Code   | Committee  | Day | Time             | Room Name    |
|--------|--|-----|------------------|--------------|
| 225    | Hydraulic Cements                                    | Mon | 1:00 pm-4:00 pm  | PARLOR D     |
| 228    | Nondestructive<br>Testing                            | Sun | 10:00 am-1:00 pm | ERIE         |
| 228-TG | Nondestructive<br>Testing TG                         | Mon | 1:00 pm-2:30 pm  | SUITE 936    |
| 229    | Controlled Low<br>Strength                           | Tue | 2:00 pm-5:00 pm  | PARLOR C     |
| 230    | Soil Cement  | Tue | 8:00 am-10:00 am | SUITE 830    |
| 231    | Early Age  | Mon | 2:00 pm-3:30 pm  | ОНІО         |
| 232    | Fly Ash & Natural<br>Pozzolans                       | Mon | 1:00 pm-4:00 pm  | CHICAGO 9    |
| 232-A  | Fly Ash-Use of Nat<br>Pozzolans                      | Mon | 10:00 am-1:00 pm | PARLOR F     |
| 233    | Slag Cement  | Tue | 2:00 pm-6:00 pm  | ERIE         |
| 234    | Silica Fume  | Tue | 2:00 pm-3:30 pm  | ОНЮ          |
| 235    | Electronic Data<br>Exchange                          | Tue | 2:00 pm-5:00 pm  | PARLOR B     |
| 236    | Material Science                                     | Mon | 4:30 pm-5:30 pm  | ONTARIO      |
| 236-B  | Material Science-<br>Transport<br>Mechanisms         | Sun | 2:00 pm-3:30 pm  | COLUMBUS A   |
| 236-D  | Material Science<br>Nanotechnology of<br>Concrete M1 | Sun | 3:30 pm-5:00 pm  | HURON        |
| 236-D  | Material Science<br>Nanotechnology of<br>Concrete M2 | Tue | 1:00 pm-3:00 pm  | PARLOR E     |
| 237    | Self-Consolidating<br>Concrete                       | Mon | 1:00 pm-4:00 pm  | ONTARIO      |
| 238    | Workability of<br>Fresh Concrete                     | Tue | 8:30 am-10:00 am | SUITE 929    |
| 301    | Specifications M1                                    | Sat | 1:00 pm-5:00 pm  | MICHIGAN A&B |
| 301    | Specifications M2                                    | Sun | 8:30 am-12:00 pm | CHICAGO 9    |
| 301    | Specifications M <sub>3</sub>                        | Mon | 1:00 pm-5:00 pm  | SUPERIOR B   |
| 301-A  | Spec-Gen Req,<br>Definitions, &<br>Tolerances        | Mon | 8:30 am-12:00 pm | PARLOR A     |
| 301-B  | Spec-Formwork & Reinforcement                        | Mon | 8:30 am-12:00 pm | SUITE 936    |
| 301-C  | Spec-Placing<br>Consolidating &<br>Curing            | Sun | 1:00 pm-5:00 pm  | SUITE 929    |
| 301-D  | Spec-Lightweight<br>& Massive Concrete               | Sun | 1:00 pm-5:00 pm  | COLUMBUS B   |

| Code    | Committee                                     | Day | Time             | Room Name  |
|---------|---|-----|------------------|------------|
| 301-E   | Spec-Prestressed<br>Concrete                  | Sun | 1:00 pm-3:00 pm  | PARLOR A   |
| 301-F   | Spec-Precast<br>Concrete Panels               | Sun | 10:00 am-3:00 pm | SUITE 830  |
| 301-G   | Spec-Shrink Comp<br>Conc & Ind Floor<br>Slabs | Sun | 1:00 pm-5:00 pm  | PARLOR B   |
| 301-H   | Spec-Tilt-Up Constr<br>& Arch Conc            | Sun | 12:30 pm-3:30 pm | HURON      |
| 301-SC  | Spec-Steering<br>Committee                    | Sun | 7:00 am-8:30 am  | COLUMBUS B |
| 302     | Floor Construction                            | Mon | 8:30 am-1:00 pm  | CHICAGO 8  |
| 303     | Architectural CIP                             | Wed | 8:30 am-11:30 am | CHICAGO 8  |
| 304     | Measuring/Mix/<br>Trans/Placing               | Mon | 11:30 am-1:00 pm | ARKANSAS   |
| 305     | Hot Weather                                   | Sun | 2:00 pm-4:00 pm  | CHICAGO 9  |
| 306     | Cold Weather                                  | Tue | 8:30 am-11:30 am | ARKANSAS   |
| 307     | Chimneys                                      | Mon | 2:00 pm-5:00 pm  | SUITE 930  |
| 308     | Curing  | Wed | 2:00 pm-5:00 pm  | MAYFAIR    |
| 308/213 | Guide on Internal<br>Curing                   | Tue | 4:30 pm-6:00 pm  | OHIO       |
| 308-A   | Curing-Guide                                  | Wed | 10:30 am-1:00 pm | SUITE 929  |
| 308-B   | Curing-Specifica-<br>tions                    | Wed | 8:00 am-10:30 am | SUITE 929  |
| 309     | Consolidation                                 | Sun | 2:00 pm-5:00 pm  | PARLOR F   |
| 310     | Decorative<br>Concrete                        | Tue | 2:00 pm-5:00 pm  | SUITE 929  |
| 311     | Inspection                                    | Mon | 8:30 am-11:30 am | ARKANSAS   |
| 313     | Bins & Silos                                  | Mon | 8:30 am-5:00 pm  | ILLINOIS   |
| 314     | Simplified Design<br>Buildings                | Mon | 11:30 am-2:00 pm | CHICAGO 10 |
| 315     | Detailing                                     | Sun | 2:00 pm-5:00 pm  | CHICAGO 10 |
| 315-B   | Detailing<br>Constructibility                 | Sun | 8:30 am-11:30 am | HURON      |
| 318     | Building Code M1                              | Tue | 8:30 am-10:30 am | CHICAGO 6  |
| 318     | Building Code M2                              | Wed | 2:30 pm-6:30 pm  | CHICAGO 8  |
| 318-A   | General Concrete<br>Constr                    | Tue | 1:00 pm-6:30 pm  | ILLINOIS   |
| 318-B   | Reinforcement & Development M1                | Mon | 2:00 pm-5:00 pm  | SUPERIOR A |
| 318-B   | Reinforcement &<br>Development M2             | Wed | 8:00 am-1:30 pm  | HURON      |

| Code      | Committee  | Day | Time              | Room Name   |
|-----------|--|-----|-------------------|-------------|
| 318-C     | Serviceability/<br>Safety                              | Tue | 1:00 pm-6:30 pm   | MICHIGAN B  |
| 318-D     | Flexure & Axial<br>Loads                               | Wed | 8:00 am-1:30 pm   | COLORADO    |
| 318-E     | Shear & Torsion  | Wed | 8:00 am-1:30 pm   | MISSOURI    |
| 318-ETG 1 | Slabs  | Mon | 10:30 am-11:30 am | SUITE 836   |
| 318-G     | Prestressed<br>Precast                                 | Wed | 8:00 am-1:30 pm   | ERIE        |
| 318-H     | Seismic Provisions                                     | Tue | 1:00 pm-6:30 pm   | MAYFAIR     |
| 318-L     | International<br>Liaison                               | Mon | 3:30 pm-5:00 pm   | SUITE 836   |
| 318-R     | Code<br>Reorganization                                 | Tue | 1:00 pm-6:30 pm   | COLORADO    |
| 318-S     | Spanish<br>Translation                                 | Mon | 2:00 pm-3:30 pm   | ERIE        |
| 318-TGF   | TGF-Foundation   | Mon | 5:00 pm-6:30 pm   | SUITE 836   |
| 325       | Pavements  | Tue | 3:30 pm-5:30 pm   | MICHIGAN A  |
| 325-A     | Pavements-Design                                       | Tue | 8:00 am-10:30 am  | PARLOR D    |
| 325-C     | Pavements-<br>Prestressed<br>and Precast               | Tue | 10:30 am-12:00 pm | PARLOR D    |
| 325-D     | Proportioning for<br>Pavements                         | Tue | 1:00 pm-2:00 pm   | SUITE 929   |
| 325-E     | Accelerated Paving                                     | Tue | 2:00 pm-3:30 pm   | PARLOR A    |
| 327       | RCC Pavements  | Tue | 10:00 am-12:00 pm | SUITE 929   |
| 329       | Perf. Ready Mixed                                      | Wed | 9:00 am-11:00 am  | CHICAGO 10  |
| 330       | Parking Lots & Site<br>Paving                          | Wed | 1:00 pm-4:00 pm   | ОНЮ         |
| 330-TG    | Parking Lots & Site<br>Paving TG                       | Wed | 8:30 am-11:30 am  | MISSISSIPPI |
| 332       | Residential<br>Concrete                                | Tue | 2:00 pm-5:00 pm   | ARKANSAS    |
| 332-B&C   | Residential<br>Concrete Materials<br>& Placement       | Tue | 11:00 am-12:00 pm | ОНІО        |
| 332-D     | Residential<br>Concrete-Footings<br>& Foundation Walls | Tue | 9:00 am-10:00 am  | ONTARIO     |
| 332-E     | Residential<br>Concrete-Above<br>Grade Walls           | Tue | 10:00 am-11:00 am | ONTARIO     |
| 332-F     | Residential<br>Concrete-Slabs                          | Tue | 1:00 pm-2:00 pm   | ОНЮ         |
| 335       | Composite Hybrid                                       | Sun | 11:30 am-1:00 pm  | MISSOURI    |
| 336       | Footings   | Sun | 1:00 pm-5:00 pm   | ONTARIO     |

| Code        | Committee                                 | Day | Time              | Room Name       |
|-------------|---|-----|-------------------|-----------------|
| 341         | Earthquake<br>Resistant Bridges           | Sun | 3:00 pm-5:00 pm   | CHICAGO 8       |
| 341-A       | Equake Res Brdgs-<br>Columns              | Sun | 11:00 am-12:30 pm | ARKANSAS        |
| 341-B       | Equake Res Brdgs-<br>Pier Walls           | Sun | 1:30 pm-3:00 pm   | ARKANSAS        |
| 341-C       | Equake Res Brdgs-<br>Retrofit             | Sun | 8:00 am-9:30 am   | ARKANSAS        |
| 341-D       | Perf Based Seismic<br>Design              | Sun | 9:30 am-11:00 am  | ARKANSAS        |
| 342         | Bridge Evaluation                         | Sun | 8:30 am-10:00 am  | ERIE            |
| 343         | Bridge Design                             | Mon | 10:00 am-1:00 pm  | COLORADO        |
| 343-A       | Design                                    | Mon | 9:30 am-10:30 am  | SUITE 836       |
| 343-B       | Bridge Deck Design                        | Mon | 8:30 am-9:30 am   | SUITE 836       |
| 345         | Bridge<br>Construction                    | Sun | 1:00 pm-3:00 pm   | MAYFAIR         |
| 346         | CIP Pipe                                  | Mon | 11:30 am-1:00 pm  | SUITE 836       |
| 347         | Formwork                                  | Sun | 8:30 am-12:30 pm  | CHICAGO 10      |
| 347-A       | Formwork-<br>Specification                | Sat | 7:00 pm-9:00 pm   | MISSOURI        |
| 348         | Safety                                    | Tue | 8:30 am-11:30 am  | PARLOR G        |
| 349         | Nuclear Structures<br>M1                  | Tue | 8:30 am-12:30 pm  | SUPERIOR A&B    |
| 349         | Nuclear Structures<br>M2                  | Tue | 2:00 pm-5:00 pm   | CHICAGO 10      |
| 349-<br>A&B | Nuclear Structures-<br>Design & Materials | Mon | 2:00 pm-5:00 pm   | COLUMBUS<br>A&B |
| 349-C       | Nuclear Str-<br>Anchorage                 | Mon | 10:00 am-12:30 pm | HURON           |
| 350         | Environmental<br>Structures               | Wed | 8:30 am-6:30 pm   | SUPERIOR A&B    |
| 350-A       | Env Str-General &<br>Concrete             | Tue | 11:30 am-3:30 pm  | PARLOR G        |
| 350-B       | Env Str-Durability                        | Mon | 8:30 am-1:00 pm   | PARLOR G        |
| 350-C       | Env Str-Reinf &<br>Devel                  | Sun | 8:30 am-11:30 am  | COLUMBUS B      |
| 350-D       | Env Str-Structural                        | Mon | 8:30 am-6:30 pm   | PARLOR E        |
| 350-E       | Env Str-Precast/<br>Prestressed           | Sun | 1:30 pm-5:00 pm   | PARLOR D        |
| 350-F       | Env Str-Seismic                           | Tue | 8:30 am-3:30 pm   | PARLOR F        |
| 350-G&K     | Env Str-Tightness<br>Testing/Haz Mat      | Tue | 8:30 am-11:30 am  | LINCOLN         |
| 350-H       | Env Str-Editorial                         | Mon | 1:00 pm-2:30 pm   | SUITE 830       |

| Code    | Committee   | Day | Time             | Room Name   |
|---------|---|-----|------------------|-------------|
| 350-J   | Env Str-Education                                 | Mon | 3:30 pm-6:30 pm  | SUITE 830   |
| 350-L   | Env Str-<br>Specification                         | Tue | 4:00 pm-6:00 pm  | PARLOR G    |
| 350-SC  | Env Str-Steering<br>Comm                          | Sun | 11:30 am-1:00 pm | ILLINOIS    |
| 351     | Equip Foundations                                 | Mon | 11:00 am-1:00 pm | ONTARIO     |
| 351-B   | Grtng Fndns-Equip<br>Machnry                      | Mon | 8:15 am-10:00 am | SUITE 929   |
| 352     | Joints  | Sun | 2:00 pm-5:00 pm  | SUPERIOR B  |
| 355     | Anchorage   | Sun | 1:00 pm-5:00 pm  | ERIE        |
| 355-TG  | Anchorage TG                                      | Mon | 8:30 am-11:00 am | ONTARIO     |
| 357     | Offshore & Marine                                 | Tue | 8:30 am-10:30 am | ILLINOIS    |
| 360     | Slabs on Ground                                   | Mon | 2:00 pm-6:30 pm  | CHICAGO 10  |
| 362     | Parking Structures                                | Mon | 1:00 pm-5:00 pm  | HURON       |
| 362-A   | Parking Str-<br>Standard                          | Mon | 8:30 am-12:00 pm | PARLOR D    |
| 363     | High-Strength                                     | Wed | 8:30 am-11:30 am | ONTARIO     |
| 363-A   | High-Strength<br>Lightweight<br>Concrete          | Tue | 3:30 pm-5:00 pm  | PARLOR A    |
| 364     | Rehabilitation                                    | Mon | 2:00 pm-5:00 pm  | MISSOURI    |
| 365     | Service Life                                      | Mon | 9:00 am-11:00 am | MISSOURI    |
| 369     | Seismic Rehab                                     | Mon | 2:00 pm-6:00 pm  | ARKANSAS    |
| 370     | Dynamic &<br>Vibratory Effects                    | Sun | 10:30 am-1:00 pm | ОНЮ         |
| 371     | Elevated Tanks<br>with Concrete<br>Pedestals      | Tue | 10:00 am-1:00 pm | SUITE 930   |
| 372     | Prestressed/Wire<br>Wrapped                       | Tue | 3:00 pm-5:00 pm  | SUITE 930   |
| 373     | Prestressed/<br>Tendons                           | Mon | 3:00 pm-5:00 pm  | PARLOR G    |
| 374     | Seismic Design                                    | Mon | 8:30 am-12:30 pm | MAYFAIR     |
| 374-TG2 | Protocol For<br>Testing RC<br>Structural Elements | Sun | 11:30 am-1:00 pm | COLUMBUS B  |
| 375     | Design for Wind<br>Loads                          | Mon | 1:00 pm-3:30 pm  | SUITE 929   |
| 376     | RLG Containment<br>Structures M1                  | Sat | 3:00 pm-5:00 pm  | ARKANSAS    |
| 376     | RLG Containment<br>Structures M2                  | Sun | 9:00 am-5:00 pm  | COLORADO    |
| 376-TG  | RLG Containment<br>Structures -TG M1              | Mon | 9:00 am-5:00 pm  | MISSISSIPPI |

| Code    | Committee  | Day | Time              | Room Name    |
|---------|--|-----|-------------------|--------------|
| 376-TG  | RLG Containment<br>Structures -TG M2             | Tue | 9:00 am-5:00 pm   | MISSOURI     |
| 376-TG  | RLG Containment<br>Structures -TG M <sub>3</sub> | Wed | 9:00 am-5:00 pm   | ARKANSAS     |
| 408     | Development and<br>Splicing                      | Sun | 8:30 am-11:30 am  | MAYFAIR      |
| 421     | Reinf Slabs                                      | Sun | 10:00 am-1:00 pm  | SUPERIOR B   |
| 423     | Prestressed                                      | Mon | 9:00 am-1:00 pm   | SUPERIOR B   |
| 423/445 | Adhoc Grp on<br>Shear in Prestress<br>Conc       | Sun | 3:00 pm-5:00 pm   | PARLOR G     |
| 435     | Deflection                                       | Mon | 3:30 pm-6:30 pm   | PARLOR A     |
| 437     | Strength<br>Evaluation                           | Mon | 8:30 am-11:30 am  | SUPERIOR A   |
| 439     | Steel<br>Reinforcement                           | Mon | 8:30 am-10:00 am  | PARLOR C     |
| 439-A   | Steel Reinf-Wire                                 | Sun | 3:30 pm-5:00 pm   | ОНЮ          |
| 440     | Fiber Reinforced<br>Polymer                      | Tue | 8:30 am-11:30 am  | CHICAGO 8    |
| 440-D   | FRP-Research                                     | Sun | 1:30 pm-3:00 pm   | MISSISSIPPI  |
| 440-F   | FRP-Repair<br>Stregthening                       | Mon | 3:00 pm-6:00 pm   | MICHIGAN A&B |
| 440-G   | FRP-Student                                      | Mon | 8:30 am-10:00 am  | ОНЮ          |
| 440-H   | FRP-Reinforced<br>Concrete                       | Sun | 8:30 am-11:30 am  | SUPERIOR A   |
| 440-J   | FRP-Stay in Place<br>Forms                       | Mon | 1:30 pm-3:00 pm   | MICHIGAN A&B |
| 440-K   | FRP-Material<br>Characteristics                  | Mon | 10:00 am-11:30 am | PARLOR C     |
| 440-L   | FRP-Durability                                   | Sun | 3:00 pm-5:00 pm   | MISSISSIPPI  |
| 441     | Columns  | Mon | 11:30 am-2:00 pm  | SUPERIOR A   |
| 441-E   | Columns Multi-<br>Spiral Reinf                   | Sun | 3:00 pm-4:30 pm   | PARLOR A     |
| 444     | Experimental<br>Analysis                         | Tue | 8:00 am-10:00 am  | PARLOR E     |
| 445     | Shear & Torsion                                  | Mon | 2:00 pm-6:00 pm   | PARLOR C     |
| 445-A   | Shear & Torsn-Strut<br>& Tie                     | Sun | 10:30 am-1:30 pm  | MISSISSIPPI  |
| 445-B   | Shear & Torsn-<br>Seismic Shear                  | Sun | 8:00 am-11:00 am  | PARLOR G     |
| 445-C   | Shear & Torsn-<br>Punching Shear                 | Sun | 1:00 pm-3:00 pm   | PARLOR G     |
| 445-D   | Shear & Torsn-<br>Database                       | Mon | 10:00 am-12:00 pm | PARLOR B     |

| Code  | Committee                          | Day | Time              | Room Name    |
|-------|------------------------------------|-----|-------------------|--------------|
| 445-E | Shear & Torsn-<br>SOA Torsion      | Sun | 12:30 pm-2:00 pm  | PARLOR F     |
| 446   | Fracture Mechanics                 | Mon | 3:30 pm-5:00 pm   | SUITE 929    |
| 447   | Finite Element<br>Analysis         | Mon | 11:30 am-2:00 pm  | SUITE 1029   |
| 506   | Shotcreting                        | Tue | 8:30 am-11:30 am  | ERIE         |
| 506-A | Shotcreting-<br>Evaluation         | Sun | 8:00 am-10:00 am  | PARLOR F     |
| 506-B | Shotcreting-Fiber<br>Reinforced    | Sun | 2:00 pm-3:00 pm   | CHICAGO 8    |
| 506-C | Shotcreting-Guide                  | Mon | 8:30 am-10:30 am  | SUITE 930    |
| 506-E | Shotcreting-<br>Specifications     | Mon | 10:30 am-12:30 pm | SUITE 930    |
| 506-F | Shotcreting-<br>Underground        | Mon | 3:00 pm-4:00 pm   | SUITE 936    |
| 506-G | Qualifications for<br>Projects     | Sun | 11:00 am-1:00 pm  | ONTARIO      |
| 515   | Protective Systems                 | Tue | 11:30 am-1:00 pm  | ERIE         |
| 522   | Pervious Concrete                  | Tue | 8:30 am-11:30 am  | CHICAGO 9    |
| 523   | Cellular Concrete                  | Tue | 10:00 am-1:00 pm  | PARLOR C     |
| 523-A | Cellular-Autoclaved<br>Aerated     | Tue | 8:30 am-10:00 am  | PARLOR C     |
| 524   | Plastering                         | Mon | 8:30 am-10:00 am  | ERIE         |
| 533   | Precast Panels                     | Mon | 2:30 pm-4:00 pm   | MAYFAIR      |
| 543   | Piles                              | Mon | 8:30 am-11:30 am  | SUITE 830    |
| 544   | Fiber-Reinforced<br>Concrete       | Tue | 3:30 pm-6:00 pm   | SUPERIOR A&B |
| 544-A | FRC-Production &<br>Applications   | Mon | 11:30 am-1:00 pm  | MICHIGAN A&B |
| 544-B | FRC-Education                      | Mon | 8:30 am-10:00 am  | COLORADO     |
| 544-C | FRC-Testing                        | Tue | 2:00 pm-3:30 pm   | CHICAGO 6    |
| 544-D | FRC-Structural Uses                | Mon | 3:30 pm-6:00 pm   | ERIE         |
| 544-E | FRC-Mechanical<br>Properties       | Mon | 2:00 pm-3:30 pm   | PARLOR B     |
| 544-F | FRC-Durability                     | Tue | 10:30 am-12:00 pm | HURON        |
| 546   | Repair                             | Mon | 8:30 am-11:30 am  | CHICAGO 9    |
| 546-B | Repair-Material<br>Selection Guide | Sun | 8:30 am-10:30 am  | SUITE 929    |
| 546-C | Repair-Guide                       | Sun | 10:30 am-11:30 am | SUITE 929    |
| 548   | Polymers                           | Tue | 8:30 am-10:30 am  | HURON        |
| 548-A | Polymers-Overlays                  | Mon | 8:30 am-11:00 am  | COLUMBUS A   |

| Code   | Committee   | Day | Time             | Room Name   |
|--------|---|-----|------------------|-------------|
| 548-B  | Adhesives in<br>Concrete                                  | Mon | 11:00 am-1:00 pm | COLUMBUS A  |
| 548-C  | Structural Polymer<br>Design                              | Sun | 11:30 am-1:00 pm | SUITE 929   |
| 548-TG | Polymers-TG   | Sun | 2:00 pm-3:00 pm  | PARLOR E    |
| 549    | Thin Reinforced   | Sun | 9:30 am-2:00 pm  | CHICAGO 8   |
| 549-A  | Thin Reinforced-<br>Glass Fiber<br>Reinforced<br>Concrete | Sun | 8:30 am-10:30 am | MISSISSIPPI |
| 550    | Precast Structures  | Sun | 3:00 pm-5:00 pm  | ARKANSAS    |
| 551    | Tilt-up   | Sun | 9:00 am-11:00 am | ONTARIO     |
| 552    | Cementitious<br>Grouting                                  | Tue | 11:30 am-2:00 pm | MISSISSIPPI |
| 555    | Recycled  | Mon | 5:00 pm-6:30 pm  | SUPERIOR B  |
| 560    | Design & Constr<br>ICFs                                   | Wed | 8:30 am-11:30 am | MAYFAIR     |
| 562    | Eval, Repair &<br>Rehab                                   | Sun | 11:30 am-5:00 pm | SUPERIOR A  |
| 562-A  | Eval, Repair &<br>Rehab-Life Safety                       | Sat | 5:00 pm-9:00 pm  | ARKANSAS    |
| 562-B  | Eval, Repair &<br>Rehab-Loads                             | Sun | 8:00 am-9:00 am  | COLORADO    |
| 562-C  | Eval, Repair &<br>Rehab-Structural<br>Analysis            | Sat | 5:00 pm-9:00 pm  | SUPERIOR A  |
| 562-Co | Eval, Repair &<br>Rehab-<br>Coordination<br>Meeting       | Sun | 8:00 am-9:00 am  | ONTARIO     |
| 562-D  | Eval, Repair &<br>Rehab-Structural<br>Repair Design       | Sat | 1:00 pm-3:00 pm  | ARKANSAS    |
| 562-E  | Eval, Repair &<br>Rehab-Durability<br>Qlty Assurance      | Sat | 5:00 pm-9:00 pm  | ОНІО        |
| 562-F  | Eval, Repair &<br>Rehab-General                           | Sat | 1:00 pm-5:00 pm  | ОНЮ         |
| 563    | Specs for Repair<br>of Struct Conc in<br>Bldgs            | Tue | 2:00 pm-5:00 pm  | SUITE 1029  |
| 563-C  | Excavation/Surface<br>Preparation                         | Tue | 7:00 am-9:00 am  | SUITE 936   |
| 563-FG | Mixtures/Placing/<br>Curing                               | Tue | 7:00 am-9:00 am  | SUITE 1029  |
| 563-H  | Architectural/<br>Precast Concrete                        | Tue | 9:00 am-11:00 am | SUITE 1029  |

| Code   | Committee   | Day | Time             | Room Name       |
|--------|---|-----|------------------|-----------------|
| 563-I  | Proprietary Grouts/<br>Concrete                     | Tue | 7:00 am-9:00 am  | PARLOR A        |
| 563-JK | Crack Repair/<br>External<br>Reinforcement          | Tue | 9:00 am-11:00 am | PARLOR A        |
| 563-L  | Prestressed<br>Concrete                             | Tue | 7:00 am-9:00 am  | MICHIGAN B      |
| 563-MN | Polymer Concrete<br>Overlays/<br>Protection Systems | Tue | 7:00 am-9:00 am  | COLUMBUS<br>A&B |
| 563-P  | Corrosion   | Tue | 9:00 am-11:00 am | COLUMBUS<br>A&B |

# NOTABLE CONCRETE ECHICAGO and Vicinity

Compiled by ACI Committee 124, Aesthetics



Co-sponsored by:

**AIAChicago** 

Download a copy of notable concrete projects at www.aciconvention.org



### Sunday, March 21, 2010 8:00 am-9:00 am

### Convention #1 Breakfast

**CHICAGO 8** 

Sponsored by the ACI Convention Committee

Session Moderator: Ka

Kari Yuers

President & CEO

Kryton International, Inc. Vancouver, BC, Canada

First-time convention attendees are invited to join Kari Yuers, Chair of the ACI Convention Committee, for a continental breakfast and a brief session on convention activities. Attendees will have the opportunity to meet other convention attendees and learn about what an ACI convention has to offer. Be sure to also attend the following events throughout the week.

### Monday, March 22 & Tuesday, March 23 8:00 am-8:30 am Coffee at the Meeting Spot

**River Exhibit Hall** 

Join other first-time attendees and convention veterans for morning coffee to discuss the days' events and network.

#### 1:00 pm-2:00 pm:

Mentors and Guides Available at the Meeting Spot River Exhibit Hall Grab a bite to eat from the concession stand in the exhibit area and meet convention veterans and other first-time attendees.

Tuesday, March 23 6:00 pm Pre-Mixer Gathering

Chi Bar

Meet for a pre-mixer beverage with convention mentors and other attendees. Beverages will be available for purchase.

### Student Pervious Concrete and FRC Bowling Ball Competitions

#### **RIVER EXHIBIT HALL**

Pervious Concrete Competition—sponsored by ACI Committee S801, Student Activities, the ACI Illinois Chapter, the Center for Maximum Potential Building Systems (CMPBS), and the U.S. Green Building Council® (USGBC®)

FRC Bowling Ball Competition—sponsored by ACI Committees 544, Fiber Reinforced Concrete, S801, Student Activities, and the ACI Illinois Chapter







Thank you to Humboldt and Forney for donating the compression machines to be used in these competitions. Also, special thanks to Flood Testing Laboratories for transportation of the Humboldt machine.

Session Moderator: Lawrence H. Taber

Structural Engineer Black & Veatch Kansas City, MO

ACI's nationally recognized student competitions offer students the opportunity to participate in interesting and educational concrete projects. This spring, students will compete in two competitions: the FRC Bowling Ball Competition and, for the very first time, the Pervious Concrete Competition. During the FRC Bowling Ball Competition, students will design and construct a fiber-reinforced concrete bowling ball that will achieve optimal performance under specified failure criteria and develop a fabrication process that produces a radial uniform density while maximizing volume. For the Pervious Concrete Competition, students will compete to create a pervious concrete specimen that maximizes permeability while maintaining a good splitting tensile strength. Come cheer on your favorite team during these spirited competitions.



Durability and Long-Term Performance of SCC SHERATON 2 Sponsored by ACI Committees 237, Self-Consolidating Concrete, and 201, Durability

Session Moderator: Mohammed Sonebi

Senior Lecturer (Associate Professor)

Queen's University-Belfast Belfast, United Kingdom

Self-consolidating concrete is an important and significant advance within concrete technology that is having a major impact on concrete practice. This technical session will focus on the long-term performance of SCC.

Influence of Supplementary Cementing Materials and Fillers
on the Transport Properties of SCC
2:00 pm
Mohammed Sonebi, Senior Lecturer (Associate Professor), Queen's
University-Belfast, Belfast, United Kingdom

Frost Durability of Self-Consolidating Concrete Used in
Repair Applications 2:30 pm
Kamal H. Khayat, Professor, University of Sherbrooke, Sherbrooke,
QC. Canada

Sulfate Resistance of Self-Consolidating Concrete 3:00 pm Mohamed Tamer Farouk Bassuoni, Lecturer (Assistant Professor), Queen's University-Belfast, Belfast, United Kingdom

Durability of SCC: General Results Based on Hydration
Studies and Microstructural Investigations 3:30 pm
Geert De Schutter, Professor, Magnel Laboratory for Concrete
Research, Ghent University, Ghent, Belgium

**High-Temperature Resistance of Self-Consolidating Concrete 4:00 pm Patrick Bamonte**, Assistant Professor, Milan University of Technology, Milan, Italy; and **Pietro Gambarova**, Milan University of Technology

**Durability Characteristics of SCC Incorporating Metakaolin** 4:30 pm **Mohamed Lachemi,** Professor, Ryerson University, Toronto, ON, Canada

#### **Durability for Concrete of Pavements**

SHERATON 1

Sponsored by ACI Committee 325, Pavements

Session Moderator: Peter C. Taylor

**Associate Director** 

National Concrete Pavement Technology

Center Ames, IA

This session focuses on how concrete materials and their proportioning and placing can affect the potential durability of pavements. The session presented by invited experts in their fields will include discussion about testing methods and specifications.

Cementitious Binders for Durable Concrete Pavements 2:00 pm Thomas J. Van Dam, Program Director, Applied Pavements Technology, Inc., Hancock, MI

**Role of Aggregates in Durable Concrete** 2:25 pm James D. Powell, Technical Director, Vulcan Materials Co., Birmingham, AL

Mix Design and Proportioning for Durability 2:50 pm Peter C. Taylor, Associate Director, National Concrete Pavement Technology Center, Ames, IA

The Effects of Construction Practices on Concrete Pavement Longevity 3:15 pm Michael E. Ayers, Director of Education for Design and Construction,

American Concrete Pavement Association, Skokie, IL

**Testing Concrete Durability** 

3:40 pm Tommy E. Nantung, Sections Manager, Indiana Department of Transportation, West Lafayette, IN

Concrete Pavement Durability: The Final Step-Maintaining the Durability 4:05 pm Shiraz D. Tayabji, Regional Manager, Fugro Consultants Inc., Ellicott City, MD

Incorporating the ASCE Body of Knowledge

SHERATON 5

Sponsored by ACI Committee S802, Teaching Methods and Educational Materials

Session Co-Moderators: Fred Meyer

Associate Professor and Director of Civil

Engineering

**United States Military Academy** 

West Point, NY

Shashi S. Marikunte Assistant Professor

Pennsylvania State University

Middletown, PA

The ASCE Body of Knowledge will become a requirement for civil engineering departments to be accredited by the Accreditation Board for Engineering and Technology and for civil engineers to be licensed. This session provides an overview of the topics that ASCE expects junior engineers to learn on the job before licensure. It will also cover several examples of how to cover non-traditional topics in concrete courses.

Presentation from the Walter P. Moore Award Winner 2:00 pm
Mahmoud M. Reda Taha, Associate Professor, University of New
Mexico, Albuquerque, NM

### Addressing the Project Management Outcome in a Design Course

2:45 pm

James H. Hanson, Assistant Professor, Rose-Hulman Institute of Technology, Terre Haute, IN

Incorporation of the ASCE Body of Knowledge (BOK) Based on Global Experiences 3:07 pm

**Fred Meyer**, Associate Professor and Director of Civil Engineering, United States Military Academy, West Point, NY; and **Steve Hart**, United States Military Academy

Teaching Sustainability to Engineers 3:29 pm

Daniel R. Lynch, MacLean Professor of Engineering, Dartmouth,

Hanover, NH

Incorporating the ASCE Body of Knowledge (cont.) SHERATON 5

Tracking Student Performance Using Bloom's Taxonomy 3:51 pm
Keith Thompson, Assistant Professor, University of Wisconsin,
Platteville, Platteville, WI

Incorporating Teamwork and Communication in an Undergraduate Concrete Course 4:13 pm
Laurel M. Dovich, Professor, Walla Walla University, Spokane, WA

Incorporating the ASCE Body of Knowledge into a

Multi-Disciplinary Design Project

4:35 pm

Charles W. Dolan, Professor, University of Wyoming, Laramie, WY



Innovations in Fire Design of Concrete Structures SHERATON 4
Sponsored by ACI Committee 216, Fire Resistance

Session Moderator: Venkatesh Kumar Kodur

Professor

Michigan State University

East Lansing, MI

The provision of appropriate fire safety measures to structural members is a major safety requirement in building design since fire represents a significant hazard in built infrastructure. Recent research and development efforts have focused on developing rational design approaches, innovative mixture designs, constitutive models for high temperature material properties, and advanced computational techniques for enhancing fire resistance of concrete structures. In this session, findings from the recent development activities on the fire performance of concrete (reinforced and prestressed) and masonry systems will be presented through eight presentations. This session is expected to benefit practicing engineers and lead to wider use of innovative design approaches and materials in building applications.

Introduction to ACI Committee 216 and Current
Committee Activities 2:00 pm
Venkatesh Kumar Kodur, Professor, Michigan State University, East
Lansing, MI

Bond Strength Degradation for Prestressed Steel and Carbon FRP Bars in Ultra High-Performance Concrete at Elevated Temperatures

2:05 pm

**Luke A. Bisby**, Reader, University of Edinburgh, Edinburgh, Scotland; **Cristian Hernán Maluk Zedan**, Potificia Universidad Catolica de Santiago; and **Giovanni Terrasi**, EMPA – The Swiss Federal Laboratories for Materials Testing and Research

Stress Block Parameters for Reinforced Concrete Beams
Exposed to Elevated Temperatures
2:25 pm
Maged A. Youssef, Associate Professor, The University of Western
Ontario, London, ON, Canada; and S.F. El-Fitiany, The University of
Western Ontario

Innovations in Fire Design of Concrete Structures (cont.)

**SHERATON 4** 

An Analytical Method for Assessing the Strength of Concrete
Structural Elements During and After Fire 2:45 pm
Martin Gillie, Lecturer, University of Edinburgh, Edinburgh,
Scotland; and Angus Law, University of Edinburgh

A Macroscopic Finite Element Computer Model for Tracing Fire
Response of Reinforced Concrete Columns 3:05 pm
Nikhil Raut, PhD Candidate, Michigan State University, East Lansing,
MI; and Venkatesh Kumar Kodur, Michigan State University

### Reinforced Concrete Bearing Walls Under Elevated Temperatures

3:25 pm

Yahya C. Kurama, Associate Professor and Director of Graduate Studies, University of Notre Dame, Notre Dame, IN; and Kevin Mueller, University of Notre Dame

#### Effect of Temperature on Tensile Strength of High-Strength Concrete

3:45 pm

Venkatesh Kumar Kodur, Professor, Michigan State University, East Lansing, MI; and Wasim Khaliq, Michigan State University

#### Review of High Temperature Properties of High-Strength Concrete

4:05 pm

**Long T. Phan**, Research Structural Engineer, National Institute of Standards and Technology, Gaithersburg, MD

### **Experience with Full-Scale Tests for Concrete**

**Tunnel Constructions** 

4:25 pm

**Frank Dehn,** Executive Director, Leipzig Institute for Materials Research and Testing, Leipzig, Germany

**Ultra High-Performance Concrete for Bridges**Sponsored by ACI Committee 343, Bridge Design

SHERATON 3

Session Moderator:

Shrinivas B. Bhide
Director of Engineering
Bentley Systems, Inc.

Sunrise, FL

Ultra high-performance concrete (UHPC) offers exceptional strength and durability properties. The result is efficient, long-lasting, and economic structures. This session will present material properties, design philosophies, current research, and case studies of UHPC bridges from around the world.

Innovative Application of Ultra High-Performance Concrete with
Fiber-Reinforced Polymer Tubes in Columns
2:00 pm
Amir Mirmiran, Professor and Chair, Florida International University,
Miami, FL; and Pedram Zohrevand, Florida International University

Innovative Field-Cast UHPC Joints for Precast Bridge
Deck Panels

2:20 pm

**Vic Perry,** Professional Engineer, Lafarge North America Inc., Calgary, AB, Canada; and **Matthew Royce**, New York State Department of Transportation

Interface Shear Performance of Precast Prestressed Ultra High-Performance Bridge Girder with Cast-in-Place Concrete Deck 2:40 pm Lawrence F. Kahn, Professor, Georgia Institute of Technology, Atlanta, GA; and Charles Crane, Georgia Institute of Technology

**Ultra High-Performance Concrete Structural Components** 3:00 pm **Benjamin Graybeal**, Research Structural Engineer, Federal Highway Administration, Maclean, VA

Marine Performance and Chloride Resistance of UHPC 3:20 pm
Michael Thomas, Professor, University of New Brunswick,
Frederickton, NB, Canada; and Vic Perry, Lafarge North America Inc.

Optimization of Highway Bridge Girders for Use with
Ultra High-Perfomance Concrete 3:40 pm
Carin L. Roberts-Wollmann, Professor, Virginia Polytechnic Institute,
Blacksburg, VA; Michael Woodworth, Thomas Cousins, and Elisa
Sotelino, Virginia Polytechnic Institute

Ultra High-Performance Concrete for Bridges (cont.) SHERATON 3

Ultra High-Performance Fiber-Reinforced Concrete
in Footbridges 4:00 pm
Gamal Ghoneim, Senior Structural Engineer, Cohos Evamy Partners,
Calgary, AB, Canada; Gerald Carson, Cohos Evamy Partners; and Vic
Perry, Lafarge North America Inc.

Ultra High-Performance Concrete Research at Virginia Tech 4:20 pm Cristopher D. Moen, Assistant Professor, Virginia Polytechnic Institute, Blacksburg, VA; Vathana Poev, Kacie D'Alessandro, Carin Roberts-Wollmann, Thomas Cousins, and Elisa Sotelino, Virginia Polytechnic Institute

Ultra High-Performance Concrete for Bridge Double T Girders 4:40 pm George Morcous, Assistant Professor, University of Nebraska-Lincoln, Omaha, NE

### Sunday, March 21, 2010 5:15 pm-6:30 pm

#### **Opening Session & Awards Program**

CHICAGO 6&7

The ACI Spring 2010 Convention officially begins during the Opening Session. Here, ACI will recognize different individuals and groups for their contributions to ACI and achievements in the concrete industry. Congratulations to the following awardees!

#### HONORARY MEMBERSHIP

Daniel L. Baker Angel Herrera Brad D. Inman H. S. Lew

### 50 YEAR MEMBERS

Surendra P. Shah

Charles Ang **Edward Aziz** John Brunalli **Emery Farkas** D. Gene Daniel Kenneth D. Hansen John M. Hanson Kal Hindo D. Kennedy L. Robert Kimball Eleusipo Labrada\* Joseph F. Lamond Murray Low Ronald B. McPherson Bernard L. Meyers Donald E. Milks Warren Minner Isam (Sam) Munir Dan Ravina Dennis E. Roby Henry Rouillard Stuart Thompson James Warner J. Craig Williams Leonard Woodruff Asim Yeginobali

### FELLOW

James Aldred Robert W. Barnes Oguzhan Bayrak Evan C. Bentz Young Soo Chung Cesar A. Constantino Juan Pablo Covarrubias Russell L. Hill Marc Jolin Jose Daniel Damazo-Juarez Kimberly E. Kurtis Laura N. Lowes Paul F. Mlakar John W. Nehasil Lawrence C. Novak Gianfranco Ottazzi Long T. Phan Jose I. Restrepo David M. Rogowsky Harry C. Roof David A. Rothstein Larbi M. Sennour Iohn F. Silva Sri Sritharan Michael C. Stenko Kolluru V. Subramaniam Thomas J. Van Dam Arthur T. Weiss, Jr. W. Jason Weiss Yan Xiao Kari Yuers

### Sunday, March 21, 2010 5:15 pm-6:30 pm

**ACI AWARDEES (cont.)** 

#### PERSONAL AWARDS

### ARTHUR R. ANDERSON MEDAL

Ward R. Malisch

### ROGER H. CORBETTA CONCRETE CONSTRUCTOR AWARD

Bruce A. Suprenant

### **JOE W. KELLY AWARD**

Ken Bondy

#### **HENRY L. KENNEDY AWARD**

Jon B. Ardahl

#### **ALFRED E. LINDAU AWARD**

Ron Klemencic

#### **HENRY C. TURNER MEDAL**

Concrete Reinforcing Steel Institute

#### **CHARLES S. WHITNEY MEDAL**

Baker Concrete Construction, Inc.

### DISTINGUISHED ACHIEVEMENT AWARD

Illinois Ready Mixed Concrete
Association

#### PAPER AWARDS

### WASON MEDAL FOR MOST MERITORIOUS PAPER

Gary J. Klein

### WASON MEDAL FOR MATERIALS RESEARCH

Michael D. A. Thomas, Allan Scott, Theodore W. Bremner, Alain Bilodeau, and Donna C. Day

### **ACI CONSTRUCTION AWARD**

Victor H. Villarreal

### CHESTER PAUL SIESS AWARD FOR EXCELLENCE IN STRUCTURAL RESEARCH

Aurelio Muttoni

#### **ACI DESIGN AWARD**

Hartwig N. Schneider and Ingo Bergmann

### CHAPTER ACTIVITIES AWARD (DOMESTIC)

J. Mitchell Englestead Mike Murray

### CHAPTER ACTIVITIES AWARD (INTERNATIONAL)

Mohammed H. Al-Nagadi Mario A. Chiorino

### ACI YOUNG MEMBER AWARD FOR PROFESSIONAL ACHIEVEMENT

Maria Juenger Nakin Suksawang Jennifer Tanner

### Sunday, March 21, 2010 5:15 pm-6:30 pm

### ACI AWARDEES (cont.)

## DELMAR L. BLOEM DISTINGUISHED SERVICE AWARD

V. Tim Cost Russell L. Hill Michael S. Stenko

#### **ACI CERTIFICATION AWARD**

Vartan Babakhanian David Darwin Mario R. Diaz

### ACI FOUNDATION—CONCRETE RESEARCH COUNCIL BOASE AWARD

Sami Hanna Rizkalla

### ACI FOUNDATION—CONCRETE RESEARCH COUNCIL PHILLEO AWARD

H. Celik Ozyildirim

### WALTER P. MOORE, JR. FACULTY ACHIEVEMENT AWARD

Mahmoud Reda Taha

### 2009 EXCELLENT CHAPTERS

Arizona
Georgia
Illinois
India
Iran
Kansas
Louisiana
Missouri
New Jersey
New Mexico
Northeast Texas
Peru
Pittsburgh
San Antonio

#### 2009 OUTSTANDING CHAPTERS

Carolinas
Central and Southern Mexico
Eastern Pennsylvania and
Delaware
Ethiopia
Florida Suncoast
Indiana
Intermountain
Las Vegas
Nebraska
Northeast Mexico
Ontario
San Diego International

## Sunday, March 21, 2010 6:30 pm-7:30 pm

#### **Opening Reception**

**RIVER EXHIBIT HALL** 

Sponsored by the ACI Illinois Chapter

After the Opening Session, make your way to the exhibit hall to enjoy a beverage from a cash bar and light refreshments. What a great place to catch up with friends, network with concrete professionals, talk with exhibitors, and meet new convention attendees! This is a networking opportunity you won't want to miss!

Following the Opening Reception, experience one of Chicago's fine restaurants. Visit the ACI Illinois Chapter Desk for suggestions.

## Sunday, March 21, 2010 7:30 pm-10:00 pm

123 Forum: Fly Ash Contributes to Sustainable Concrete

Construction – Is It Justified to Reclassify the Material
as a Hazardous Waste?

SHERATON 3

Sponsored by ACI Committee 123, Research and Current Developments

Session Moderator: Mohammad S. Khan

Senior Vice President

Professional Service Industries Inc. (PSI)

Herndon, VA

Following its long tradition, ACI Committee 123 brings industry experts together to debate on another subject and to share their views with ACI patrons. The debate this time is whether it is justified to reclassify fly ash as a hazardous waste. Based on more than one-half century of research and application, today fly ash is the most commonly used supplementary cementitious material. We can produce good quality durable concrete by replacing as much as 50% of portland cement with fly ash. Since the production of portland cement is associated with greenhouse gas emissions, minimizing the use of portland cement and maximizing the use of supplementary cementitious materials is a substantial contribution to sustainable development, and fly ash does just that. Also, when fly ash is used in concrete, most harmful metals in the material are safely immobilized by the hydration reactions of cement, which could otherwise be hazardous if not disposed of properly.

If fly ash is reclassified as a hazardous waste, the big question is what implications it would have on the advances the concrete industry has made towards a sustainable concrete construction. Would fly ash still be included in concrete standards and specifications due to fear of liability and litigation? What alternatives would the concrete industry have in reducing CO<sub>2</sub> emissions associated with the production of portland cement? What alternatives would the concrete industry have in reducing the heat of hydration and consequently cracking and reduced service life of mass concrete structures such as dams? What alternatives would the concrete industry have in producing low permeability watertight structures with long service life? How would this reclassification impact major on-going construction projects designed and specified with fly ash? Could this reclassification jeopardize construction projects currently being performed under American Recovery and Reinvestment Act (ARRA)? What impact would reclassification have on the economic growth of the nation?

## Sunday, March 21, 2010 7:30 pm-10:00 pm

123 Forum: Fly Ash Contributes to Sustainable Concrete
Construction—Is It Justified to Reclassify the Material
as a Hazardous Waste? (cont.)
SHERATON 3

Our panelists in Chicago will address these and many other questions, and after discussing the subject with them you should be able to make an assessment whether reclassification of fly ash as a hazardous waste is a step forward or a step backward.

Introduction 7:30 pm

**Mohammad S. Khan**, Senior Vice President, Professional Service Industries, Inc., Herndon, VA

Reclassification Impacts—A Global Perspective 7:35 pm
Anne Ellis, Vice President of Government Affairs, AECOM,
Alexandria, VA

**Liability, Litigation, and Stigma—3 Barriers to Progress** 7:45 pm **Thomas H. Adams,** Executive Director, American Coal Ash Association, Aurora, CO

The Potential Consequences of Reclassifying Fly Ash as a Hazardous Waste in Florida 7:55 pm Christopher Ferraro, Structural Materials Research Engineer, Florida Department of Transportation, Gainesville, FL

The Beneficial Use of Fly Ash in Pavements:
The Concrete Pavement Industry's Perspective
8:05 pm
Leif Wathne, Vice President of Highways and Federal Affairs,
American Concrete Pavement Association, Washington, DC

Questions, Answers, and Discussion 8:15 pm

## Sunday, March 21, 2010 9:00 pm-10:30 pm

Student and Young Professional Networking Event
Sponsored by the ACI Collegiate Concrete Council and Student and
Young Professional Activities Committee

The ACI Collegiate Concrete Council and Student and Young Professional Activities Committee for Young Professionals invite all convention attendees to the Student and Young Professional Networking Event. Meet fellow students and young professionals while networking with ACI members in a fun and casual environment. Attendees to the event will be entered into a drawing for door prizes. In addition, the bar will be open for attendees desiring to purchase beverages and/or appetizers.



## Monday, March 22, 2010 6:30 am-8:15 am

Workshop for Technical Committee Chairs CHICAGO 6&7

Sponsored by the ACI Technical Activities Committee

Session Moderator: David H. Sanders

Professor

University of Nevada, Reno

Reno, NV

ACI Technical Committee Chairs are expected to attend this breakfast workshop to meet with fellow Chairs, TAC members, and ACI staff and to hear updates on important recent developments of interest to ACI Technical Committee Chairs. There will be table discussions and short presentations. If you are unable to attend, please ask the Secretary or another committee member to represent you in your absence.

## Monday, March 22, 2010 7:00 am-8:30 am

Speaker Skills Training Breakfast: Teaching Methods and Educational Materials

CHICAGO 9

Sponsored by ACI Committee S802, Teaching Methods and Educational Materials

Session Moderator: James H. Hanson

**Assistant Professor** 

Rose-Hulman Institute of Technology

Terre Haute, IN

Speaker: Chris Carroll

**Assistant Professor** 

University of Louisiana at Lafayette

Lafayette, LA

Topic: The Use of a Tablet PC for a Presentation

This presentation will focus on the use of Tablet PC's for presentations. Tablet PC's are becoming more popular in academia amongst faculty and students, with some schools requiring students to purchase a Tablet PC prior to enrollment in an engineering program. While this push seems to be towards creating a more automated workforce, the most useful application of Tablet PC's can be seen in classroom instruction. Tablet PC's may be the most useful tool when creating active learning environments. By using a Tablet PC during lectures, faculty can use skeleton file formats which allow students the opportunity to focus more attention on important items and spend less time on sketches and drawings that so often distract students from key points during a lecture. If this concept works in a classroom setting, why should it be limited to classroom settings?

Many engineers present projects and give professional seminars on a regular basis as part of their careers. On too many occasions, PowerPoint presentations are given with information overload. In these situations, viewers leave the presentation overwhelmed and unable to pinpoint the presenter's main objective. By using techniques similar to those used with Tablet PC's in active learning style teaching environments, presenters can also keep the focus of the viewers and emphasize key points in their presentations. This presentation will give examples of both applications; a typical lecture and a professional seminar.

## Monday, March 22, 2010 7:30 am-8:30 am

Chapter Forum ERIE

Sponsored by the Chapter Activities Committee

What is required of chapters in regards to filing the IRS 990 form? Is your chapter incorporated correctly? Donna Halstead, ACI's Managing Director of Finance and Administration will address these common questions.



Extreme Tilt-Up Performance: Design to

Construction, Part 1 SHERATON 2

Sponsored by ACI Committee 551, Tilt-Up Concrete Construction

Session Moderator: James R. Baty

**Technical Director** 

**Concrete Foundation Association** 

Mount Vernon, IA

Tilt-up concrete is both a frontier and a staple in the building industry. Although largely considered an industrial building system, today's market exhibits design and construction accomplishments that are achieved through effective collaboration of architects, engineers, and contractors. Attendees of this session will uncover the historical significance of tilt-up design and construction, and develop a solid foundation of the capabilities and technologies that enable the present and future to be dominated by this building method for low- to mid-rise construction.

**Historical Significance of Slender Wall Test**9:00 am **James S. Lai,** Retired Structural Engineer, La Cañada Flintridge, CA

Code Changes That Effect Tilt-Up Concrete Design 9:30 am John W. Lawson, Assistant Professor, California Polytechnic State University, San Luis Obispo, CA

The Role of Steel 10:00 am
Anthony I. Johnson, Production Application Engineering, Concrete
Reinforcing Steel Institute, Rochester Hills, MI

Seismic Performance of Concrete Tilt-Up Walls

Perry Adebar, Associate Professor, University of British Columbia,
Vancouver, BC, Canada; Kenneth J. Elwood, University of British
Columbia

Hybrid System Design & Construction 11:00 am

Jeff Griffin, Senior Project Manager, LJB Inc., Dayton, OH

Recent Advances in Maintenance and Repair of Concrete Bridges

SHERATON 5

Sponsored by ACI Committee 345, Concrete Bridge Construction, Maintenance and Repair

Session Moderator: Yail Jimmy Kim

**Assistant Professor** 

North Dakota State University

Fargo, ND

This special session will focus on current technology for concrete bridge repair and maintenance. The presentations and technical papers will include case studies of damages and corresponding repair due to extreme events, state-of-the-art repair technologies, evaluation and inspection techniques, and maintenance of existing concrete bridges.

The Effect of Snapping the Prestress Wires for Box Beams
Subjected to Combined Load
9:00 am
Mokhtar M. Aburawi, Professor, Al Marghab University, Alkhoms,
Libya; and Ali Mohamed, Engineering Academy in Tajura

Seismic Rehabilitation of RC Bridges by Using FRP and SRP:
Case Study of a Bridge in the South of Italy 9:20 am
Marco Di Ludovico, Assistant Professor, University of Naples,
Naples, Italy; Roberto Cuzzilla, Andrea Prota, and Gaetano
Manfredi, University of Naples

Bridge Inspection and Repair in Cold Regions 9:40 am
Amer Hmidan, PhD Student, North Dakota State University, Fargo,
ND; and Jimmy Kim, North Dakota State University

Use of Non-Destructive Evaluation Techniques to Localize Occurring
Damage in RC Structure Exposed to a Marine Environment 10:00 am
Antonio Nanni, Professor and Chair, University of Miami, Coral
Gables, FL; Rossella M. Ferraro, Alexander Suma, Fabio Matta, and
Brian Metrovich, University of Miami

**Evaluation of Fire-Damaged Bridges Scott T. Wyatt**, Senior Bridge Engineer, CTLGroup, Skokie, IL

Recent Advances in Maintenance and Repair of Concrete Bridges (cont.)

SHERATON 5

Technical Demands for Preventive Bridge Maintenance 10:40 am Johan L. Silfwerbrand, Professor, Royal Institute of Technology, Stockholm, Sweden

FRP Retrofit for a Historic Arch Bridge in Southern Ontario 11:00 am Khaled A. Soudki, Canada Research Chair, University of Waterloo, Waterloo, ON, Canada; Scott Davis, AECOM; and Christine Beard Laaber, Town of South Bruce Peninsula

**Texas' Use of CFRP to Repair Concrete Bridges Brian Merrill**, State Bridge Construction and Maintenance
Engineer, Texas Department of Transportation Bridge Division,
Austin, TX; **Dingyi Yang** and **Timothy E. Bradberry**, Texas
Department of Transportation

#### **Research in Progress**

SHERATON 1

Sponsored by ACI Committee 123, Research and Current Developments

Session Co-Moderators: Aleksandra Radlinska

Assistant Professor Villanova University Villanova, PA

Farshad Rajabipour Assistant Professor

The Pennsylvania State University

University Park, PA

The session will feature presentations of original unpublished results from ongoing research projects and leading-edge concrete technology and research throughout the world.

James Instruments Awardee Presentation 9:00 am Investigation of Delaminations in Concrete Using Air-Coupled Impact Echo Method

**Taekeun Oh,** PhD Student, University of Illinois at Urbana-Champaign, Urbana, IL

Experimental Examination of Confinement Reinforcement in Pretensioned Concrete Beams 9:05 am

**Brandon E. Ross**, PhD Student and Research Assistant, University of Florida, Gainsville, FL; and **H.R. Hamilton**, University of Florida

Bond and Shear Behavior of Beams Containing Lightweight Synthetic Particles

9:20 am

Sami H. Rizkalla, Distinguished Professor of Civil Engineering and Construction, and Director Constructed Facilities Laboratory, North Carolina State University, Raleigh, NC; and Matthew J. Heiser, Amr I. Hosny, and Paul Zia, North Carolina State University

Use of Mixed Mode Fracture Interfaces for the Modeling of FRP Strengthened Beams

FRP Strengthened Beams 9:35 am
Jae Ha Lee, PhD Candidate, The Pennsylvania State University, State
College, PA; and Maria M. Lopez, The Pennsylvania State University

Long Term Behavior of Integral Abutment Bridges 9:50 am
Matthew D. Lovell, Graduate Assistant, Purdue University, West
Lafayette, IN; and Robert J. Frosch, Purdue University

Research in Progress (cont.)

SHERATON 1

An Integrated Framework for Creation and Assessment
of Sustainable Construction Processes
Jacqueline Thompson, PhD Candidate and Sustainable Construction
Research Specialist, Arizona State University, Tempe, AZ; and
Howard H. Bashford, Arizona State University

Integrating 3D Imaging and Discrete Element Modeling
for Concrete Fracture Problems

10:20 am
Eric Landis, Professor and Chair, University of Maine, Orono, ME;
John Bolander and Daisuke Asahina, University of California–Davis;
and Sean de Wolski, University of Maine

The Effect of Coatings Used to Mitigate Alkali-Silica

Reaction and/or Delayed Ettringite Formantion 10:35 am

Evan R. Wehrle, Graduate Research Assistant, University of Texas,

Austin, TX; and Kevin Folliard, University of Texas

Influence of Stranding on Chloride Threshold Levels in
Prestressing Steels: Test Method and Preliminary Results 10:50 am
Robert D. Moser, Doctoral Candidate, Georgia Institute of Technology,
Atlanta, GA; and Lawrence F. Kahn, Kimberly E. Kurtis, and Preet M.
Singh, Georgia Institute of Technology

Research Progress with ASTM C1202 Chloride Test 11:05 am
Peter Claisse, Professor, Coventry University, Coventry, United
Kingdom

Mechanical Properties of Fiber-Reinforced Aerated
Concrete (AFRC)

11:20 am
Aboozar Bonakdar, Graduate Student, Arizona State University,

**Aboozar Bonakdar**, Graduate Student, Arizona State University, Tempe, AZ; and **Barzin Mobasher**, Arizona State University

Evaluating the Effect of Methods and Calculation Techniques on Apparent Activation Energy (Ea) of Cementious Materials 11:35 am Md. Sarwar Siddiqui, Graduate Student, Kansas State University, Manhattan, KS; and Kyle Riding, Kansas State University

Extending Internal Curing to Concrete Mixtures with w/c Higher than 0.42 11:50 am Mauricio Lopez, Assistant Professor, Pontificia Universidad Católica de Chile, Santiago, Chile

Technical Session in Honor of Tony Fiorato, Part 1

SHERATON 4

Sponsored by the ACI Illinois Chapter

Session Co-Moderators: Ronald G. Burg

Vice President CTLGroup Skokie, IL 2

James M. Clarke Quality Control Director Prairie Material Bridgeview, IL

Part one of this session will highlight Tony Fiorato's many technical contributions to the concrete industry. Presentations that focus on Fiorato's contribution in the codes arena will include an overview of the relationship between ACI and ASTM standards in cement and concrete technology, harmonization of cement standards, reorganization of the ACI 318 building code, and rationalization of concrete core testing protocols.

ACI and ASTM: Cementing the Relationship 9:00 am Nicholas J. Carino, Concrete Materials Consultant, Chagrin Falls, OH

Code of Millennium, Reorganization of ACI 318 9:30 am
W. Gene Corley, Senior Vice President, CTLGroup, Skokie, IL

ACI's Approach to Durability in ACI 318-08: A More
Rational Approach
Terence C. Holland, Consulting Engineer, Concrete Terry LLC, Auburn
Township, OH

Evaluation of Pre-Test Moisture Conditioning of
Concrete Cores on Measured Compressive Strength
Ronald G. Burg, Vice President, CTLGroup, Skokie, IL

Harmonization of Cement Specifications 11:00 am Al Innis, Vice President Product Performance, Holcim (US) Inc., Dundee. MI

Effect of Cement Properties on Concrete Performance 11:30 am
Peter C. Taylor, Associate Director, National Concrete Pavements
Technology Center, Ames, IA

Textile Reinforced Concrete—Modern Developments,
Part 1 SHERATON 3

Sponsored by ACI Committee 549, Thin Reinforced Cementitious Products and Ferrocement

Session Moderator: Ashish Dubey

Research Associate USG Corporation Libertyville, IL

This technical session highlights recent advances in the field of textile reinforced concrete (TRC). Topics covered in the symposium include novel textile reinforcements for concrete, mechanical behavior, durability performance, thermal and fire behavior, modeling and structural design aspects, production methods, and practical applications of textile reinforced concrete. Practicing engineers, architects, structural designers, specifiers, contractors, academicians, and researchers with an interest in the field of textile reinforced concrete will find this technical session highly pragmatic and useful to their professional development.

Introduction 9:00 am

Ashish Dubey, Research Associate, USG Corporation, Libertyville, IL

Influence of Matrix Composition and Short Fibres on the Workability of Fibre Concrete 9:05 am

**Wolfgang Brameshuber**, Professor and Chair, Institute of Building Materials and Research—RWTH Aachen University, Aachen, Germany; and **Marcus Hinzen**, Institute of Building Materials and Research—RWTH Aachen University

**Durability of Textile Reinforced Concrete** 

9:30 am

Till Büttner, Professor, Institute of Building Materials and Research—RWTH Aachen University, Aachen, Germany; and Allessandra Keil and Michael Raupach, Institute of Building Materials and Research—RWTH Aachen University

Behavior of Textile Reinforced Concrete Strengthened

**RC-Structures Under Fire Loading** 

9:55 am

**Daniel Ehlig**, Professor, Institute of Concrete Structures—Dresden University of Technology, Dresden, Germany; and **Frank Jesse** and **Manfred Curbach**, Dresden University of Technology

Textile Reinforced Concrete—Modern Developments,
Part 1 (cont.) SHERATON 3

Corrosion Protection of Steel Reinforced Concrete Structural
Members in Repair and Strengthening Using TRC

10:20 am
Matthias Lieboldt, Professor, Institute of Concrete Structures—
Dresden University of Technology, Dresden, Germany; and Viktor
Mechtcherine, Dresden University of Technology

Preformed Textile Reinforcements for Thin-Walled
Textile Reinforced Sandwich Building Members 10:45 am
Steffan Janetzko, Professor, Institute for Textile Technology—RWTH
Aachen University, Aachen, Germany

On the Mechanical Behavior of Carbon and Glass Fiber
Filament Yarns Under Long-Term Load

Ayham Younes, Professor, Institute of Textile and Clothing Technology—
Dresden University of Technology, Dresden, Germany; Chokri Cherif,
Thomas Engler, and Andre Seidel, Institute of Textile and Clothing
Technology—Dresden University of Technology

High-Speed Tensile Testing of Textile Composites 11:35 am
Deju Zhu, PhD Student, Arizona State University, Tempe, AZ; Barzin
Mobasher, Arizona State University; and Alva Peled and Zvi Cohen,
Ben Gurion University



#### **Exhibitor Demonstrations**

#### RIVER EXHIBIT HALL

Exhibitors will demonstrate the capabilities of their company on Monday and Tuesday, March 22nd and 23rd from 9:00 am to 3:30 pm. Presentations may demonstrate equipment operation, introduce new products, demonstrate software capabilities, or describe the services provided by each participating company. These presentations may include PowerPoint shows, videos, and even hands-on workshops. Each demonstration will conclude with a question and answer period. Attendees representing all areas of the concrete industry will find the demonstrations both interesting and educational. Learn more about the products and services offered by the following companies:

| Monday Exhibitor Demonstration Schedule |                                  |  |
|---|----------------------------------|--|
| Time                                    | Exhibitor                        | Presentation/Demo Title  |
| 9:00 am                                 | Vector Corrosion<br>Technologies | XMesh Gold Cementitious Fibre<br>Reinforced Structural Strengthening |
| 9:45 am                                 | QuakeWrap Inc.                   | SuperLaminates™, the next<br>Generation of FRP                       |
| 10:30 am                                | BASF Construction<br>Chemicals   | Introducing a revolutionary workability admixture                    |
| 11:15 am                                | Kryton                           | Integral Waterproofing using KIM crystallization admixtures          |
| 12:00 pm                                | South Atlantic<br>LLC            | Recent Research on Galvanized<br>Rebar                               |
| 12:45 pm                                | Tekla Inc.                       | BIM for the Concrete Industry  |
| 1:30 pm                                 | Proceq                           | Introducing the New SilverSchmidt<br>Concrete Test Hammer            |
| 2:15 pm                                 | GSSI                             | Introduction to Ground Penetrating<br>Radar for Concrete Inspection  |
| 3:00 pm                                 | Engius LLC                       | IntelliRock and Concrete Maturity                                    |

For a complete listing of each demonstrator and the time of their presentation, pick up the flyer in the Registration area, or refer to signs located in front of the Demonstration Area located in the River Exhibit Hall.

✓ Student Lunch

\$50 U.S. per person; FREE to students who preregistered

Sponsored by Baker Concrete Construction, Inc.



Coordinated by the ACI Illinois Chapter and ACI Committee S801, Student Activities

Speaker: George Tuhowski III

General Superintendent and Director of Sustainability Leopardo Companies Hoffman Estates, IL



Topic: The Importance of Sustainable

Design

Join other ACI attendees and students for the results of the Student Competitions. Following the awards, featured speaker George Tuhowski III, LEED AP and General Superintendent and Director of Sustainability at Leopardo Companies, will discuss the importance of sustainable design and the significance of thinking "green" when designing future structures. Recently completed LEED projects in Chicago will be highlighted.

#### PREREGISTRATION IS REQUIRED TO ATTEND.

Tickets may be purchased at the ACI Registration Desk up to 24 hours prior to the event, based on availability. Please notify the ACI Registration Desk if you have any dietary restrictions.

### Monday, March 22, 2010

Aqua Building Presentation and Tour Tour 1: 12:00 pm-1:30 pm—SOLD OUT

**Tour 2: 12:30 pm-2:00 pm—Registration Required**Meet at the Aqua Building—225 North Columbus Drive (approximately 4 blocks from Sheraton)

Coordinated by ACI Committee 124, Concrete Aesthetics

Take a tour of Aqua and hear from James McHugh Construction about how this striking new concrete tower was built. Aqua is an 82-story mixed-use residential skyscraper. To capture views of nearby landmarks, the architect stretched Aqua's balconies outward, resulting in the building's wave-like forms and irregularly shaped concrete floor slabs. Note: The roof will be accessed by a fixed ladder. Please dress appropriately.



Effects of Micro- and Macro-cracking on Durability SHERATON 5 Sponsored by ACI Committees 201, Durability of Concrete, and 224, Cracking

Session Co-Moderators: Ralf Leistikow

Principal and Branch Manager Wiss, Janney, Elstner Associates, Inc.

Duluth, GA

Lawrence J. Valentine
Director of Technical Services
ShrinkageComp Plus, Inc.

Concord, NC

Presenters will discuss the impact of micro- and macro-cracking can have on the long- and short-term durability of concrete in a variety of applications.

Long-Term Water Permeability of Cracks in Concrete 2:00 pm
Hans W. Reinhardt, Professor, University of Stuttgart, Stuttgart,
Germany

Durability of Partially Cracked Axial Concrete Members
Subjected to Harsh Environments
2:20 pm
Mozahid Hossain, Master's Degree Student, North Dakota State
University, Fargo, ND; and Yail Kim, North Dakota State University

Investigating the Effect of Cracking on Concrete Permeability as a Function of Crack Width and Tortuosity 2:40 pm Farshad Rajabipour, Associate Professor, University of Hawaii at Manoa, Honolulu, HI; and Alireza Akhavan, University of Hawaii at Manoa

Shrinkage Compensation for Greater Durability 3:00 pm Lawrence J. Valentine, Director of Technical Services, ShrinkageComp Plus, Inc., Concord, NC

Recent Advances on Self-Healing of Cement-Based Materials 3:20 pm Erik Schlangen, Associate Professor, Delft University of Technology, Postbus, Netherlands

Effects of Micro- and Macro-cracking on Durability (cont.)

SHERATON 5

X-Ray Absorbtion Measurements of Fluid Ingress Cracked
Concrete Under Load
3:40 pm
Amir Poursaee, Research Assistant Professor, Purdue University,
West Lafayette, IN; and Jason Weiss, Purdue University

Experimental Considerations for Studying the Impact of
Cracks on Reinforcement Corrosion 4:00 pm
Mette Geiker, Associate Professor, Technical University of
Denmark, Kongens Lyngby, Denmark

Micro-cracked Concrete Tension Members Retrofitted with
Near-Surface Mounted CFRP Strips Subjected to Wet-Dry
Cycles 4:20 pm
Arifur Rahman, Master's Degree Student, North Dakota State
University, Fargo, ND; and Yail Kim, North Dakota State University



Extreme Tilt-Up Performance: Design to Construction, Part 2

SHERATON 2

Sponsored by ACI Committee 551, Tilt-Up Concrete Construction

Session Moderator: J. Edward Sauter

**Executive Director** 

Tilt-Up Concrete Association

Mount Vernon, IA

Tilt-up concrete is both a frontier and a staple in the building industry. Although largely considered an industrial building system, today's market exhibits design and construction accomplishments that are achieved through effective collaboration of architects, engineers, and contractors. Attendees of this session will uncover the historical significance of tilt-up design and construction and develop a solid foundation of the capabilities and technologies that enable the present and future to be dominated by this building method for low- to mid-rise construction.

#### **Extreme Measures of Education**

2:00 pm

**Kimberly Kramer,** Director of Graduate Studies, Kansas State University, Manhattan, KS

### Total Site Cast Precast Concrete Solutions for Today's Parking Structures

2:30 pm

Joseph J. Steinbicker, Principal, Steinbicker & Associates, LLC, Dayton, OH

How Did They Build That? Non-Traditional Tilt-Up Structures 3:00 pm William R. Braswell, Senior Vice President, BBM Structural Engineers Inc, Longwood, FL

**Detailing Tilt-Up Panels Using Revit Structure** 

3:30 pm

Philip S. Kopf, President, Kopf Consulting Group, Marietta, GA

#### BIM Systems and Collaborative Technology for Tilt-Up

Design and Construction

4:00 pm

**Shane Walters**, Design Engineer, Tilt-Up Design Systems, LLC, Heathrow. FL

Tilt-Up: Engineering and Construction Partner to New Heights 4:30 pm James R. Baty, Technical Director, Tilt-Up Concrete Association, Mount Vernon, IA

Serviceability Limit States for Concrete Structures SHERATON 1
Sponsored by ACI Committee 343, Concrete Bridge Design

Session Co-Moderators: Hani H. Nassif

Associate Professor Rutgers University Piscataway, NJ

Andrzej S. Nowak

Professor of Civil Engineering University of Nebraska - Lincoln

Lincoln, NE

Limit states are of a fundamental importance in the new generation of load and resistance factor design (LRFD) codes including AASHTO LRFD. So far, the major effort has focused on ultimate (strength) limit states. Yet, in many cases, it is the serviceability limit state (SLS) that governs the design. There is an urgent need to verify the adequacy of the current design criteria for SLS and, if needed, to develop rational provisions.

Introduction 2:00 pm Hani H. Nassif, Associate Professor, Rutgers University, Piscataway, NJ

Behavior of Beams Prestressed with Unbonded Tendons at the Serviceability Limit State 2:05 pm Hani H. Nassif, Associate Professor, Rutgers University, Piscataway, NJ; and Ozgur Ozkul, Leslie E. Robertson Associates

**Deflection Control: Dealing with Uncertainty 2:30 pm Andrew Scanlon**, Professor, Pennsylvania State University,
University Park, PA

Camber Variability in Pretensioned Concrete Members 2:55 pm Kromel Hanna, PhD Student, University of Nebraska-Lincoln, Lincoln, NE; and Maher K. Tadros, University of Nebraska

Target Reliability for Serviceability Limit States 3:20 pm
Andrzej S. Nowak, Professor, University of Nebraska—Lincoln,
Lincoln, NE; and Piotr Paczkowski, University of Nebraska—Lincoln

Serviceability Limit States for Concrete Structures (cont.)

SHERATON 1

**Deflection Control of Steel and FRP Reinforced Concrete 3:45 pm Peter H. Bischoff**, Professor, University of New Brunswick,
Fredericton, NB, Canada

Tensile Stress Limits in Webs of Segmental Concrete Bridges 4:10 pm Ayman M. Okeil, Assistant Professor, Louisiana State University, Baton Rouge, LA

Prediction of Long-Term Prestress Loss in High-Strength
Concrete 4:35 pm
Amgad F. Girgis, Structural Engineer, Kiewit Engineering Co., Omaha,
NE; and Maher K. Tadros, University of Nebraska-Lincoln

Technical Session in Honor of Tony Fiorato, Part 2

SHERATON 4

Sponsored by the ACI Illinois Chapter

Session Co-Moderators: Ronald G. Burg

Vice President CTLGroup Skokie, IL

James M. Clarke

Quality Control Director

Prairie Material Bridgeview, IL



Part two of this session continues with presentations that highlight Tony Fiorato's contributions to the development and use of high-strength concrete, including the evolution of high-strength concrete in Chicago, and a presentation on how high-strength concrete technology made the world's tallest building possible. Additional presentations will cover Fiorato's contributions that advanced knowledge in such diverse areas as how cement properties affect concrete performance, how Alkali-Silica Reaction (ASR) is controlled and mitigated through effective specifications, and how performance-based specifications were applied to rapid concrete repair materials.

Controlling and Mitigating ASR through Effective Specifications

2:00 pm

**Paul D. Tennis**, Manager, Cement and Concrete Technology, Portland Cement Association, Fort Mill, SC

Lunar Concrete - Beyond Codes and Standards 2:30 pm

T.D. Lin, President, Lintek International, Inc., Wilmette, IL

Evolution of High-Strength Concrete in Chicago 3:00 pm Henry G. Russell, Engineering Consultant, Henry G. Russell, Inc.,

Glenview, IL

How High-Performance Concrete Made the World's

Tallest Building Possible
3:30 pm
Lawrence C. Novak, Director of Engineered Buildings, Portland
Cement Association, Skokie, IL

Technical Session in Honor of Tony Fiorato, Part 2 (cont.)

**SHERATON 4** 

Case Histories in High-Strength Concrete 4:00 pm Michael A. Caldarone, Principal Engineer, CTLGroup, Skokie, IL

A Performance-Based Concrete Specification for
Rapid Repairs 4:30 pm
Matthew D. D'Ambrosia, Project Manager, CTLGroup, Skokie, IL



Textile Reinforced Concrete—Modern Developments,
Part 2 SHERATON 3

Sponsored by ACI Committee 549, Thin Reinforced Cementitious Products and Ferrocement

Session Moderator: Ashish Dubey

Research Associate USG Corporation Libertyville, IL

This technical session highlights recent advances in the field of textile reinforced concrete (TRC). Topics covered in the symposium include novel textile reinforcements for concrete, mechanical behavior, durability performance, thermal and fire behavior, modeling and structural design aspects, production methods, and practical applications of textile reinforced concrete. Practicing engineers, architects, structural designers, specifiers, contractors, academicians, and researchers with an interest in the field of textile reinforced concrete will find this technical session highly pragmatic and useful to their professional development.

Introduction 2:00 pm
Ashish Dubey, Research Associate, USG Corporation, Libertyville, IL

Recommendations for Determining Design Strength Values of
Textile Reinforced Concrete for Practical Applications 2:05 pm
Frank Jesse, Professor, Institute of Concrete Structures—Dresden
University of Technology, Dresden, Germany; Kai Schicktanz and
Manfred H. Curbach, Institute of Concrete Structures—Dresden
University of Technology

New Model for the Calculation of TRC Sandwich Panels 2:30 pm Michael Horstmann, Professor, Institute of Structural Concrete-RWTH Aachen University, Aachen, Germany; Josef Hegger and Ali Shams, Institute of Structural Concrete—RWTH Aachen University

Strengthening of a Barrel Shell with Textile Reinforced
Concrete—Dimensioning and Design
2:55 pm
Frank Schladitz, Professor, Dresden University of Technology,
Dresden, Germany; Enrico Lorenz, Silvio Weiland, and Manfred H.
Curbach, Dresden University of Technology

Textile Reinforced Concrete—Modern Developments,
Part 2 (cont.) SHERATON 3

Strengthening of a Barrel Shell with Textile Reinforced
Concrete—Practical Experiences 3:20 pm
Frank Schladitz, Professor, Dresden University of Technology,
Dresden, Germany; Enrico Lorenz, Frank Jesse, and Manfred H.
Curbach, Dresden University of Technology

Concepts and Execution Examples for the Use of Textile
Reinforced Concrete 3:45 pm
Christian Schatzke, Professor, Institute of Building Construction and
Design – RWTH Aachen University, Aachen, Germany; and Hartwig
Schneider, Institute of Building Construction and Design-RWTH
Aachen University

Application of Textile Reinforced Concrete in Prefabrication 4:10 pm Viktor Mechtcherine, Professor, Dresden University of Technology, Dresden, Germany; Matthias Lieboldt and Marko Butler, Dresden University of Technology

Development, Production and Application of an Insulated
Wall System Made of Self-Supporting TRC Sandwich-Façade
Elements 4:35 pm

Michael Glowania, PhD Student, Institute of Textile Technology and Process Engineering – RWTH Aachen University, Aachen, Germany; Silke Tomoscheit, and Thomas Gries, Institute of Textile Technology and Process Engineering - RWTH Aachen University; and Michael Horstmann, Ali Shams, and Josef Hegger, Institute of Structural Concrete-RWTH Aachen University

#### Women in ACI Reception

MAYFAIR

Co-Sponsored by the Society of Women Engineers

All registered convention attendees are invited to attend the Women in ACI Reception. This long-standing ACI tradition is a great opportunity to get to know other women in the concrete industry. A cash bar and light hors d'oeuvres will be served.



✓ Reception Honoring Tony Fiorato
\$35 U.S. per person
Sponsored by the ACI Illinois Chapter

CHICAGO 9

Please join the ACI Illinois Chapter in honoring
Tony Fiorato for his numerous contributions and
accomplishments. Fiorato has served the industry



accomplishments. Fiorato has served the industry in many ways, most notably as President of ACI during the centennial year and as Chairman of the Board of ASTM. He has been recognized as a Fellow of ACI; awarded the ACI Illinois Chapter's

prestigious Henry Crown Award, the ACI Henry L. Kennedy Award, and the ACI Henry C. Turner Medal; and recognized by the Reinforced Concrete Research Council with the Arthur J. Boase Award. In 2008, Fiorato was inducted into the National Academy of Engineering. His research in the area of high-strength concrete and concrete durability is widely recognized and highly respected. Perhaps his most notable contributions are his tireless efforts to promote usable, consistent codes and standards and share his knowledge worldwide. The purpose of this reception, in addition to the technical sessions in his honor, is to recognize him for his outstanding long-time selfless dedication to the concrete industry. Hors d'oeuvres and a cash bar will be available.

#### PREREGISTRATION IS REQUIRED TO ATTEND.

Tickets may be purchased at the ACI Registration Desk up to 24 hours prior to the event, based on availability. Please notify the ACI Registration Desk if you have any dietary restrictions.

#### ✓ William R. Tolley Retirement Celebration \$90 U.S. per person

CHICAGO 6&7

Join other ACI friends and colleagues for a celebration dinner and toast in honor of William R. (Bill) Tolley's retirement from ACI. Tolley started his career at the American Concrete Institute in 1975 as the Manager of Administrative Services. Later he served as Senior Managing Director in which he oversaw conventions, education, certification,



chapters, information technology, and international activities. He was promoted to Executive Vice President in 2002.

Tolley is the President of the ACI Foundation and its three councils. In addition, he is the President of Creative Association Management (CAM), a subsidiary of ACI that manages other associations such as the International Concrete Repair Institute, American Shotcrete Association, Post-Tensioning Institute, and the Building Owners and Managers Association of Metropolitan Detroit (BOMA).

In addition to his service at ACI, he is the Chairman of the Concrete and Masonry Related Associations and has served as Treasurer, Board member, and Chair of the Finance and Administration Committee for the Council of Engineering and Scientific Society Executives (CESSE). Tolley is a Certified Association Executive and has been active in the American Society of Association Executives.

A Fellow of ACI, he received the ACI Henry L. Kennedy Award for his outstanding leadership in strengthening and expanding chapter activities. In 2006, he was named one of the 10 most influential people in the concrete industry.

Please join us in honoring Bill Tolley's dedication to and retirement from ACI during this very special event!

#### PREREGISTRATION IS REQUIRED TO ATTEND.

Tickets may be purchased at the ACI Registration Desk up to 24 hours prior to the event, based on availability. Please notify the ACI Registration Desk if you have any dietary restrictions.

# Tuesday, March 23, 2010 7:00 am-12:00 pm

√Tour of Metropolitan Water Reclamation
District Construction Upgrade
\$25 U.S. per person

DEPART CONVENTION ENTRANCE

The Metropolitan Water Reclamation District (MWRD) of Greater Chicago is currently constructing a large upgrade in its sewage treatment facilities to increase the capacity of its Calumet plant, located on the south side of the city. Construction began in January 2009 and is expected to continue through the fall of 2012. The district construction upgrade consists of 12 155 foot diameter primary settling tanks, an enclosed aerated grit removal facility, twin 96-inch diameter force mains, service tunnels, effluent conduits, utility relocation/replacement, and other appurtenances. A guided tour of the construction site will be given by both MWRD and contractor staff.

A valid photo ID such as a driver's license, state ID card, or passport must be provided to enter the plant facilities. Appropriate footwear (no open-toed shoes) is required.

# Tuesday, March 23, 2010 9:00 am-12:00 pm

Advances in the Material Science of Concrete, Part 1 SHERATON 1
Sponsored by ACI Committee 236, Material Science of Concrete

Session Co-Moderators: Jason H. Ideker

Assistant Professor Oregon State University

Corvallis, OR

Aleksandra Radlinska Assistant Professor Villanova University Villanova, PA

This session highlights material science aspects of concrete and the distinct impact that the Center for Advanced Cement Based Materials (ACBM) has had in this area over the past 20 years. Emphasis will be placed on advances in understanding the fundamental scientific background of cement-based materials as well as the crucial impact these research efforts have had on the concrete industry.

Introduction 9:00 am Jason H. Ideker, Assistant Professor, Oregon State University,

Corvallis, OR; and **Aleksandra Radlinska**, Villanova University,

Construction Chemicals LLC, Beachwood, OH

In Pursuit of "Crack-Free" Concrete. A Tribute to
Professor Surendra P. Shah
9:05 am
Emmanuel K. Attiogbe, Manager of Technical Services, BASF

Performance of High-Density Concrete at Elevated

Temperature 9:30 am

**Corina Aldea,** Associate Materials Engineer, AMEC Earth and Environmental; and **Bruce Cornelius**, AMEC Earth and Environmental

Monitoring Chemical Shrinkage Using Pressure Sensors 9:50 am Sulapha Peethamparan, Assistant Professor, Clarkson University, Potsdam, NY; Emily Weissinger, Joe Vocaturo, Jie Zhang, and George W. Scherer, Princeton University

Cement-Based Materials Reinforced with Nanofibers 10:10 am
Zoi Metaxa, Visiting Pre-Doctoral Fellow, Northwestern University,
Evanston, IL; and Maria S. Konsta-Gdoutos, Democritus University of
Thrace; and Surendra P. Shah, Northwestern University

## Tuesday, March 23, 2010 9:00 am-12:00 pm

Advances in the Material Science of Concrete, Part 1 (cont.)

SHERATON 1

Studying of Cement Paste Setting at Microstructural Level 10:30 am Giri Venkiteela, PhD Student, University of Louisville, Louisville, KY; and Zhihui Sun, University of Louisville

Cement-Based Materials Characterization at the Nanoscale:
Nanoindentation and Ultrasonic AFM

Jo:50 am
Jae Hong, Post-Doctoral Fellow, Northwestern University, Evanston,
IL; Paramita Mondal, University of Illinois at Urbana-Champaign;
and Surendra P. Shah, Northwestern University

X-Ray Nanotomography of Cement Microstructure 11:10 am

David A. Lange, Professor and Associate Department Head, University
of Illinois at Urbana-Champaign, Urbana, IL; Yaodong Jia, Tsinghua
University; and Yi-Shi Liu, University of Illinois at Urbana-Champaign

Modeling Nucleation and Growth Kinetics of Alite Using µic 11:30 am Shashank Bishnoi, Post-Doctoral Fellow, Laval University, Quebec, QC, Canada; and Karen Scrivener, Ecole Polytechnique Fédérale de Lausanne

## Tuesday, March 23, 2010 9:00 am-12:00 pm

Concrete Repair—Xtreme Conditions, Part 1

SHERATON 3

Sponsored by the ACI Illinois Chapter

Session Co-Moderators: Paul E. Gaudette

**Associate Principal** 

Wiss, Janney, Elstner Associates, Inc.

Chicago, IL

Joseph S. Balik

Manager of International Projects

WR Grace & Co. Arlington Heights, IL

The ACI Illinois Chapter is hosting an all-day session on Concrete Repair—Xtreme Conditions. Twelve presentations will be given by local and nationally recognized experts in concrete repair ranging in scope from conditions commonly found in the field to specific building and transportation structures. Included will be such landmark projects as the Baha'i House of Worship, Ronald Reagan Airport, Fenway Park, the I-35 Bridge reconstruction, and Old Chicago Post Office repair. You'll hear the presentations and views of the contractor, material supplier and engineer involved, and satisfy your desire for knowledge on extreme concrete repair!

Corrosion Mitigation at Reagan National Airport 9:00 am David W. Whitmore, Vice President, Vector Construction Ltd., Winnipeg, MB, Canada; and Chris Ball, Vector Corrosion Technologies

Role of Engineer and Contractor in Repair Work 9:30 am Thomas L. Rewerts, President, Thos. Rewerts & Co., LLC, Kansas City, MO

#### **Fenway Park Restoration**

10:00 am

**Paul E. Gaudette**, Associate Principal, Wiss, Janney, Elstner Associates, Inc., Chicago, IL; and **Ann Harrer**, Wiss, Janney, Elstner Associates, Inc.

Baha'i House of Worship Restoration 10:30 am
Robert F. Armbruster, President, The Armbruster Company, Inc.,
Northbrook, IL

## Tuesday, March 23, 2010 9:00 am-12:00 pm

Concrete Repair—Xtreme Conditions, Part 1 (cont.)

SHERATON 3

Repair, The Ultimate Sustainability 11:00 am
Fred R. Goodwin, Senior Development Scientist, BASF Construction
Chemicals LLC, Beachwood, OH

**Post-Tensioning Repairs in a Coastal Environment 11:30 am John F. Duntemann**, Principal, Wiss, Janney, Elstner Associates, Inc.,
Northbrook, IL; and **Jon Sfura**, Wiss, Janney, Elstner Associates, Inc.

## Tuesday, March 23, 2010 9:00 am-12:00 pm

Design Using the Strut-and-Tie Method: Examples and
Approaches, Part 1 SHERATON 2

Sponsored by ACI Committee 445, Shear and Torsion

Session Co-Moderators: Karl-Heinz Reineck

Professor

University of Stuttgart Leonberg, Germany

Lawrence C. Novak

Director, Engineered Buildings Portland Cement Association

Skokie, IL

The provisions for design using the strut-and-tie model (STM) were incorporated in ACI 318 in 2002. Since then, practicing engineers have been using this model for the design of common and uncommon structures. These two sessions present an introduction to the method, design examples, common problems experienced in real design applications, additional guidance for using the STM, and an assessment of existing requirements. The sessions conclude with a discussion of the need for change in the code provisions and further guidance documents.

Introduction 9:00 am Karl-Heinz Reineck, Professor, University of Stuttgart, Leonberg, Germany

The STM Design Process and ACI Requirements 9:05 am Daniel A. Kuchma, Associate Professor, University of Illinois at Urbana-Champaign, Champaign, IL

**Bridge Pier–Hammerhead Bent Cap 9:25 am Robin Tuchscherer,** Structural Engineer, Datum Engineers, Austin, TX

**Design of Deep Pile Caps with Tension Piles 9:50 am Widianto Widianto,** Structural Engineer, ExxonMobil Development
Company, Houston, TX

Foundation Grade Beam
Leonard P. De Rooy, Professor, Calvin College, Grand Rapids, MI

Design Using the Strut-and-Tie Method: Examples and
Approaches, Part 1 (cont.)
SHERATON 2

Stepped Beam 10:30 am Matthias F. Andermatt, Graduate Student, University of Alberta, Breton, AB, Canada

Dapped-End Double T-Beam with Curved Bar Nodes
Gary J. Klein, Executive Vice President, Wiss, Janney, Elstner
Associates, Inc., Northbrook, IL

Evaluation of Prestressed Dapped Girder Ends with
Cazaly Hangers 11:20 am
Katrin Habel, Bridge Designer, AECOM, Edmonton, AB, Canada

Guideline Documents for Using Strut-and-Tie Models

Karl-Heinz Reineck, Professor, University of Stuttgart,

Leonberg, Germany

Closure 11:55 am Lawrence C. Novak, Director, Engineered Buildings, Portland Cement Association, Skokie, IL

#### **Extreme Concrete History**

**SHERATON 4** 

Sponsored by ACI Committee 120, History of Concrete

Session Co-Moderators: Lawrence H. Taber

Structural Engineer Black & Veatch Kansas City, MO

Richard Yelton Editor-in-Chief HanleyWood LLC Chicago, IL

Come experience our past! Concrete has an exciting history that needs to be explored and cherished. In this session, we will pry open those history books and discover a wide range of topics including Roman cement, historic mixture designs, dam construction, historic ready mixed concrete trucks, and much more.

Introduction

9:00 am

Lawrence H. Taber, Structural Engineer, Black & Veatch, Kansas City, MO

Roman Cement

9:05 am

**Paul J. Tikalsky**, Professor and Chair of Civil and Environmental Engineering, University of Utah, Salt Lake City, UT

**Tampa's Concrete Cemetery** 

9:30 am

**Joseph A. Amon**, Senior Consultant, Ardaman Associates Inc, Tampa, FL

History of the Ready Mixed Concrete Truck

9:55 pm

Richard Yelton, Editor-in-Chief, Hanley Wood, Chicago, IL

The King Bee's Contributions to Concrete Technology

10:20 am

Jon I. Mullarky, Retired, Chester, MD

Bridging the Imjin River during the Korean War

10:45 am

Fred Meyer, Associate Professor and Director of Civil Engineering, United States Military Academy, West Point, NY

**Extreme Concrete History (cont.)** 

**SHERATON 4** 

Old Concrete Dam Construction and Modern Expansion: Ah Ha, A Clue!

11:10 am

**Lawrence H. Taber**, Structural Engineer, Black & Veatch, Kansas City, MO

**Early Concrete Mixture Designs** 

11:35 am

**Luke M. Snell**, Eminent Scholar, Del E. Web School of Construction, Arizona State University, Tempe, AZ

### Structural Health Monitoring for Bridge Design and Evaluation

SHERATON 5

Sponsored by ACI Committees 342, Evaluation of Concrete Bridges and Bridge Elements, and 343, Concrete Bridge Design

Session Co-Moderators: Ayman M. Okeil

Associate Professor Louisiana State University

Baton Rouge, LA

Jeffrey Smith
Structures Engineer

Federal Highway Administration-Kentucky

Division Frankfort, KY

Structural Health Monitoring (SHM) activities have picked up pace in recent years. Many bridge projects are now instrumented with monitoring systems that perform various tasks and achieve different goals. Typical SHM activities can be classified into condition assessment and performance evaluation. Condition assessment is conducted on existing bridges to make decisions with respect to their load-carrying capacity, need for rehabilitation, or even replacement. Performance evaluation, on the other hand, is usually a long-term exercise, where the recorded response is used to evaluate the structural performance of the monitored system or component. In all cases, SHM has now become a viable tool that helps engineers answer questions that cannot be addressed in lab settings.

Contributors to this session include consultants, bridge officials, and researchers who are in charge of bridge SHM projects. The session will give the audience valuable information and lessons from existing projects. It will also allow the exchange of information about the latest technological advancements in SHM, including sensor types, communication modules, and data mining techniques.

Field Testing and SHM of Concrete Bridges in Kentucky 9:00 am Issam E. Harik, Professor, University of Kentucky, Lexington, KY

City of Seattle's Approach to Long-Term Monitoring 9:30 am

David Anderson, Senior Civil Engineer Specialist, Seattle

Department of Transportation, Seattle, WA

Structural Health Monitoring for Bridge Design and Evaluation (cont.)

**SHERATON 5** 

Evaluation of Streicker Bridge Performance Using
Fiber-Optic Monitoring Systems

10:00 am
Branko Glisic, Assistant Professor, Princeton University, Princeton, NJ

**Test to Failure of a Slab Bridge 10:30 am Bruno P. Massicotte**, Professor, Ecole Polytechnique Montreal,

Montreal, QC, Canada

**Remote Monitoring of Bridges in the Everglades 11:00 am Rajan Sen**, Professor, University of South Florida, Tampa, FL

Structural Health Monitoring for Evaluation of Cracking
Potential of Concrete Decks
11:30 am
Hani H. Nassif, Professor, Rutgers University, Piscataway, NJ

#### **Exhibitor Demonstrations**

#### RIVER EXHIBIT HALL

Exhibitors will demonstrate the capabilities of their company on Monday and Tuesday, March 22nd and 23rd from 9:00 am to 3:30 pm. Presentations may demonstrate equipment operation, introduce new products, demonstrate software capabilities, or describe the services provided by each participating company. These presentations may include PowerPoint shows, videos, and even hands-on workshops. Each demonstration will conclude with a question and answer period. Attendees representing all areas of the concrete industry will find the demonstrations both interesting and educational. Learn more today about the products and services offered by the following companies:

| Tuesday Exhibitor Demonstration Schedule |   |   |  |  |
|--|---|---|--|--|
| Time                                     | Exhibitor                               | Presentation/Demo Title   |  |  |
| 9:00 am                                  | Germann<br>Instruments                  | Latest NDT systems and their applications   |  |  |
| 9:45 am                                  | Atlas Restoration<br>LLC                | Slab stabilization with polyurethane foam   |  |  |
| 10:30 am                                 | Michigan<br>Technological<br>University | University Transportation Center<br>for Materials in Sustainable<br>Transportation Infrastructure<br>(UTC-MiSTI) program highlights |  |  |
| 11:15 am                                 | Erico                                   | LENTON and LENTON LOCK product demonstration  |  |  |
| 12:45 pm                                 | Olson<br>Engineering and<br>Instruments | Sonic, radar, and electrical methods for imaging concrete and rebar   |  |  |
| 1:30 pm                                  | James Instruments Inc.                  | NDT testing—equipment and applications  |  |  |
| 2:15 pm                                  | Superior Gunite                         | Shotcrete installation  |  |  |

For a complete listing of each demonstrator and the time of their presentation, pick up the flyer in the Registration area, or refer to signs located in front of the Demonstration Area located in the River Exhibit Hall.

✓ Contractors' Day Lunch \$55 U.S. per person CHICAGO 7

Hosted by the ACI Illinois Chapter and Construction Liason Committee

Speaker: Bobby Hull

Retired Hockey Player Chicago Blackhawks

Sarasota, FL

Topic: A Shot and a Goal!

Memoirs of the Golden

Era of Hockey



Join other ACI attendees and contractors for the Contractors' Day Lunch, featuring Hockey Hall of Famer, Bobby Hull. Bobby Hull is regarded as one of the greatest ice hockey players of all time and perhaps the greatest left winger to ever play the game. He possessed the most feared slapshot in his day. In his 23 years in the National Hockey League and World Hockey Association, he played for the Chicago Blackhawks, Winnipeg Jets, and Hartford Whalers. Hull will regale the audience with anecdotes from his multifaceted career.

#### PREREGISTRATION IS REQUIRED TO ATTEND.

Tickets may be purchased at the ACI Registration Desk up to 24 hours prior to the event, based on availability. Please notify the ACI Registration Desk if you have any dietary restrictions.

Hot Topic Session: Reconstruction Efforts in Haiti Chicago 9

Sponsored by the Hot Topic Committee

Session Moderator: Kirk McDonald

Manager, Technical Services

CA Portland Cement Co.

Glendora, CA

This session will focus on the reconstruction efforts being put in place to start the rebuilding process of Haiti, following the devastating earthquake that took place January 12, 2010. Presentation topics include: the damage and aftermath of the Haiti earthquake from an eyewitness prospective, seismicity of the Caribbean, first-hand evaluation of the construction used in Haiti one month after the earthquake, and lessons learned from RC construction in the Americas from the Haiti Earthquake.



Advances in the Material Science of Concrete, Part 2 SHERATON 1
Sponsored by ACI Committee 236, Material Science of Concrete

Session Co-Moderators: Jason H. Ideker

Assistant Professor Oregon State University

Corvallis, OR

Aleksandra Radlinska Assistant Professor Villanova University Villanova, PA

This session highlights material science aspects of concrete and the distinct impact that the Center for Advanced Cement Based Materials (ACBM) has had in this area over the past 20 years. Emphasis will be placed on advances in understanding the fundamental scientific background of cement-based materials, as well as the crucial impact these research efforts have had on the concrete industry.

Introduction 2:00 pm

Jason H. Ideker, Assistant Professor, Oregon State University, Corvallis, OR; and Aleksandra Radlinska, Villanova University

Structural Concrete with Lightweight Synthetic Particles 2:05 pm Matthew D. D'Ambrosia, Project Manager, CTLGroup, Skokie, IL

Internal Curing: A Discussion of the Role of Pore Solution on Relative Humidity Measurements and the Desorption of LWA 2:30 pm Javier Castro, Graduate Research Assistant, Purdue University, West Lafayette, IN; Jason Weiss, Purdue University; Ryan Henkesiefken, U.S. Concrete, Inc.; Pietro Lura, EMPA; and Farshad Rajabipour, The Pennsylvania State University

Linking the Structure of Micro- and Macro-porous Concretes to
Transport through Electrical Impedance 2:50 pm
Narayanan Neithalath, Assistant Professor, Clarkson University,
Potsdam, NY; and Jitendra Jain, Clarkson University

Advances in the Material Science of Concrete, Part 2 (cont.)

SHERATON 1

Improvement of Fresh-State Concrete Through Small
Additions of Clay
3:10 pm
Nathan A. Tregger, Graduate Research Assistant, Northwestern
University, Evanston, IL; Raissa P. Douglass-Ferron, The University of
Texas; and Surendra P. Shah, Northwestern University

Closed Form Solutions for Uniaxial Passive Restraint

Experiments 3:30 pm

Zachary C. Grasley, Assistant Professor, Texas A&M University,

College Station, TX

Quantifying Damage Due to Aggregate Expansion in a

Cement Matrix
3:50 pm

Mohammad Pour-Ghaz, Graduate Research Assistant, Purdue

University, West Lafayette, IN; and Jason Weiss, Purdue University

High-Speed Tensile Testing of Fabric Cement Composites Under Intermediate Strain Rates 4:10 pm Barzin Mobasher, Professor, Arizona State University, Tempe, AZ

Advancements in Cement-Based Materials from Rheology
a Perspective 4:30 pm
Raissa P. Douglass-Ferron, Assistant Professor, The University
of Texas, Austin, TX

Concrete Repair—Xtreme Conditions, Part 2

**SHERATON 3** 

Sponsored by the ACI Illinois Chapter

Session Co-Moderators: Joseph S. Balik

Manager, International Projects

WR Grace & Co. Arlington Heights, IL

Paul E. Gaudette Associate Principal

Wiss, Janney, Elstner Associates, Inc.

Chicago, IL

The ACI Illinois Chapter is hosting an all-day session on Concrete Repair—Xtreme Conditions. Twelve presentations will be given by local and nationally recognized experts in concrete repair ranging in scope from conditions commonly found in the field to specific building and transportation structures. Included will be such landmark projects as the Baha'i House of Worship, Ronald Reagan Airport, Fenway Park, the I-35 Bridge reconstruction, and Old Chicago Post Office repair. You'll hear the presentations and views of the contractor, material supplier and engineer involved and satisfy your desire for knowledge on extreme concrete repair!

Old Chicago Post Office Shotcrete Repair 2:00 pm Blake M. Rago, Project Manager, RH Ward and Associates, Inc., South Chicago Heights, IL; and Tony Rago, RH Ward and Associates, Inc.

To Repair or Not to Repair 2:30 pm
Ward R. Malisch, Technical Director, American Society of Concrete
Contractors, Northville, MI

Marina City Façade Repairs 3:00 pm Robert F. Joyce, President, Quality Restorations, Inc., Wood Dale, IL

Repair Approaches for Concrete Slab Finish Problems 3:30 pm K. Nam Shiu, Vice President, Walker Restoration Consultants, Elgin, IL

Concrete Repair—Xtreme Conditions, Part 2 (cont.) SHERATON 3

**Reconstruction of I-35 Bridge 4:00 pm Kevin A. MacDonald**, Vice President of Engineering Services,
Cemstone Concrete Products Co., Mendota Heights, MN

Performance Specifications for Repair Work 4:30 pm Michael M. Sprinkel, Managing Director, Virginia Transportation Research Council, Charlottesville, VA



Contractors' Day Session: Xtreme Local Projects

SHERATON 4

Sponsored by the ACI Illinois Chapter

Session Co-Moderators: Paul Tuscher

Quality Control Prairie Material Bridgeview, IL

Kelly M. Page Executive Director

International Concrete Repair Institute

Des Plaines, IL

Chicago is known for its innovative use of concrete in a variety of projects, from beautiful skyscrapers to the enormous Chicago Deep Tunnel project. In this session, you can hear about some of the most recent interesting projects within the Chicago Metropolitan area, straight from those intimately involved with these projects.

Constructability and Efficiency of Concrete Construction 2:10 pm Bill Carbeau, Director of Special Applications Business, Putzmeister America Inc., Sturtevant, WI

#### O'Hare Modernization Program

2:50 pm

**William Trudeau**, Quality Assurance Manager, O'Hare Modernization Program, Chicago, IL

#### Constructability—AQUA

3:40 pm

**Paul Treacy**, Concrete Superintendent, James McHugh Construction Co., Chicago, IL

Conservation and Relocation of the U-505 Submarine 4:20 pm Leonard Koroski, Project Architect, Goettsch Partners, Chicago, IL; Gregory J. Lakota, Halvorson and Partners.

Design Using the Strut-and-Tie Method: Examples and Approaches, Part 2

SHERATON 2

Sponsored by ACI Committee 445, Shear and Torsion

Session Co-Moderators: Lawrence C. Novak

Director, Engineered Buildings Portland Cement Association

Skokie, IL

Karl-Heinz Reineck

Professor

University of Stuttgart Leonberg, Germany

The provisions for design using the strut-and-tie model (STM) were incorporated in ACI 318 in 2002. Since then, practicing engineers have been using this model for the design of common and uncommon structures. These two sessions present an introduction to the method, design examples, common problems experienced in real design applications, additional guidance for using the STM, and an assessment of existing requirements. The sessions conclude with a discussion of the need for change in the code provisions and further guidance documents.

Introduction: Highlights from Session 1 2:00 pm
Lawrence C. Novak, Director, Engineered Buildings, Portland
Cement Association, Skokie, IL

#### **Propped Cantilever with Opening**

2:10 pm

**Daniel A. Kuchma**, Associate Professor, University of Illinois at Urbana-Champaign, Urbana, IL

**Design of a Link Beam at a Roof of a Medium-Rise Building 2:35 pm Hakim Bouadi**, Senior Associate, Walter P. Moore & Associates,
Houston, TX

**Diaphragm for a Segmental Concrete Bridge 2:55 pm Richard J. Beaupre**, Senior Bridge Engineer, URS Corporation,
Tampa, FL

Design Using the Strut-and-Tie Method: Examples and Approaches, Part 2 (cont.)

**SHERATON 2** 

Diaphragm for Extradosed Cable-Stayed Bridge 3:20 pm
Trevor Kirkpatrick, Structural Engineer, URS Corporation, Tampa, FL

Importance of Reinforcement Detailing 3:45 pm

Denis Mitchell, William Scott Professor of Civil Engineering, McGill
University, Montreal, QC, Canada

Strut-and-Tie Models for Beams Versus Shear Design? 4:15 pm Karl-Heinz Reineck, Professor, University of Stuttgart, Leonberg, Germany

**Future of ACI STM Provisions and Guidelines 4:35 pm Daniel A. Kuchma**, Associate Professor, University of Illinois at
Urbana-Champaign, Urbana, IL

Closure 4:55 pm Karl-Heinz Reineck, Professor, University of Stuttgart, Leonberg, Germany

#### **Open Paper Session**

SHERATON 5

Sponsored by ACI Committee 123, Research and Current Developments

Session Moderator: Sulapha Peethamparan

Assistant Professor Clarkson University Potsdam, NY

The Open Paper Session is a forum for presenting recent technical information that could not be scheduled into other convention sessions.

Introduction 2:00 pm Sulapha Peethamparan, Assistant Professor, Clarkson University, Postdam, NY

P2P: The Australian Perspective

2:05 pm

**Ken W. Day**, Consultant, Concrete Advice Pty. Ltd, Melbourne, Australia

Monitoring Early Age Microstructure Development of
Cement Paste Using Bender Elements 2:24 pm
Jinying Zhu, Assistant Professor, The University of Texas, Austin, TX;
Seong-Hoon Kee, The University of Texas

Development of Novel Concrete/Cold-Formed Steel
Composite Beams
2:43 pm
Alexander Wehbe, Design Engineer, Kiewit Engineering Co., Omaha,
NE; Nadim I. Wehbe and Arden B. Sigl, South Dakota State

University; and Lionel E. Dayton, Nucor Research and Development

The Role of Aggregate Stiffness on Restrained
Shrinkage Cracking
3:02 pm
Kyung-Joon Shin, Graduate Student, Purdue University, West
Lafayette, IN; and Jason Weiss, Purdue University

Evaluation and Analysis of the Repair of a Post-Tensioned,
Precast Concrete, Segmental Bridge 3:21 pm
Adel El-Safty, Associate Professor, University of North Florida,
Jacksonville, FL; and Robert Bennett, University of North Florida

Open Paper Session (cont.)

SHERATON 5

Electrical Impedance Based Effective Media Approaches
for High Performance Concrete Strength Prediction and
its Relationship to Maturity Functions
3:40 pm
Jarrod Persun, Graduate Student, Clarkson University, Postdam, NY;
and Narayanan Neithalath, Clarkson University

Effect of Lightweight Aggregate and Curing Temperature
on the Cracking Tendency of Concrete
3:59 pm
Benjamin Byard, Graduate Research Assistant, Auburn University,
Auburn, AL; and Anton K. Schindler, Auburn University

The Origin of Early Age Expansions in Cement Pastes
Containing Shrinkage Reducing Admixtures
Gaurav Sant, Ecole Polytechnique Fédérale dé Lausanne, Lausanne,
Switzerland; Barbara Lothenback, EMPA Materials Science and
Technology; Karen Scrivener, Ecole Polytechnique Fédérale dé
Lausanne; and Jason Weiss, Purdue University

Aggregate Characterization for Recycled Concrete
Aggregates
4:37 pm
Yogini Deshpande, Post-Doctoral Researcher, Michigan Technological
University, Houghton, MI

#### **Faculty Network Reception**

**COLUMBUS A&B** 

Faculty members and students are invited to attend this informal reception. During this time, you will have an opportunity to exchange ideas and network. Light hors d'oeuvres and a cash bar will be available.



Concrete Mixer—The Blues!
Sponsored by the ACI Illinois Chapter

SHERATON CHICAGO 4-10

Chicago is known worldwide as the home of the Blues. Be inspired by the music that was made popular in Chicago during the 1940s and 1950s by artists such as Muddy Waters, Willie Dixon, John Lee Hooker, Howlin' Wolf, and Elmore James during the Blues-themed Concrete Mixer at the Chicago convention! The perfect place to network and relax as you enjoy great music, a taste of Chicago, and cocktails (and maybe a surprise guest or two!), courtesy of the ACI Illinois Chapter.

All ACI attendees MUST wear a name badge to attend. Please use the drink tickets found in your registration packet, or cash to purchase beverages.

Following the Concrete Mixer enjoy more great food at one of Chicago's spectacular eateries. Chicago is such a food lovers' paradise that the only dilemma you'll have is how to choose from so many delicious options. Visit the ACI Illinois Chapter Desk or the hotel concierge for suggestions.



✓ Chicago Architecture Tour \$69 U.S. per person **DEPART CONVENTION ENTRANCE** 

On foot, we'll tour Chicago's new and renewed buildings along Dearborn Street, including Daley Plaza with its landmark Picasso and surrounding State of Illinois and Chase Bank plazas filled with large-scale sculptures and murals that energize Chicago's Loop. A cruise of the Chicago River and Lake Michigan is the most unique and interesting way to see the city. On this narrated 90-minute Lake and River Cruise, we'll see the best of Chicago's historic and stateof-the-art architecture and learn why Chicago is known as the "Architectural Capitol of the World." Please note that the cruise sails rain or shine, so please dress in appropriate attire. Stairs are required to reach the cruise boat. If for some reason the Coast Guard cancels the cruise due to high seas, the time will be spent visiting several architecturally significant buildings and exhibits, including the Rookery, Chicago Architecture Foundation, and the Chicago History Museum. Finally, we'll visit Millennium Park, a 26-acre park that features an ice rink, a 1500-seat indoor theatre for music and dance, the 120 foot high, 3000-seat Jay Pritzker Music Pavilion designed by Frank Gehry, and so much more.



✓=separate fee required

Building Information Modeling in the Concrete Industry,
Part 1 SHERATON 4

Sponsored by ACI Committee 118, Use of Computers

Session Co-Moderators: Allan P. Bommer

Chief Design Engineer Bentley Systems, Inc.

Seattle, WA

Phillip J. Antis

Principal, Manager Structural Engineering

AECOM Arlington, VA

The presentations in this session will illustrate successes, failures, problems, and the potential of using Building Information Modeling (BIM) for concrete structures in any or all phases of a project (design, detailing, fabrication, construction, and operation). Some presentations will be project-specific and others will cover topics such as industry standards, interoperability, and tolerance/fit issues.

### Intro to the New Committee 131—Building Information Modeling of Concrete Structures

9:00 am

**Peter J. Carrato**, Principal Civil Engineer, Bechtel Corporation, Frederick, MD; and **Allan P. Bommer**, Bentley Systems, Inc.

#### The Concrete Benefits of BIM

9:10 am

Erleen Hatfield, Principal, Buro Happold, New York, NY

### BIM and Structural Concrete: Constructability Begins in Design

9:35 am

**William F. Ikerd**, Director of Integrated Project Delivery Department, Raymond L. Goodson Jr., Inc., Dallas, TX

Potential BIM Applications for Cast-in-Place Concrete in Nuclear Plant Design and Construction 10:00 am

**Peter J. Carrato**, Principal Civil Engineer, Bechtel Corporation, Frederick, MD; and **Martin Reifschneider**, Bechtel Corporation

Building Information Modeling in the Concrete Industry,
Part 1 (cont.) SHERATON 4

Construction Simulation for Transfer Floors and Outriggers of
Reinforced Concrete Building Using BIM

10:25 am
Bohwan Oh, Chief Researcher, Daewoo Engineering and Construction
Co., Gyeongi-Do, South Korea; and Taehun Ha and Myungho Lee,
Daewoo Engineering and Construction Company

#### **Virtual Building**

10:50 am

**Frank Haase**, Senior Manager Virtual Building and Design, Webcor Builders, San Francisco, CA

The Use of BIM to Facilitate Concrete Design and
Construction Leveraging Integration
William M. Klorman, President, W. M. Klorman Construction
Corporation, Woodland Hills, CA



Frontiers in the Use of Polymers in Concrete, Part 1 SHERATON 2
Sponsored by ACI Committee 548, Polymers and Adhesives for
Concrete

Session Co-Moderators: Mahmoud M. Reda Taha

Associate Professor
University of New Mexico

Albuquerque, NM

Mike Stenko President

Transpo Industries Inc. New Rochelle, NY

This session focuses on innovative uses of polymers in concrete. These include new types of polymer admixtures, new applications of polymer concrete, structural analysis of new polymer concrete systems, ultra-high-strength polymer concrete, new developments for epoxy modified mortars, the use of saturated acrylic polymers (SAP) for internal curing, and others.

Visco-Elastic Behavior of Concrete Containing
Super-Absorbent Polymers
9:00 am
Eduard Koenders, Associate Professor, Delft University of Technology,
Delft, Netherlands; H. Van der Ham and Klaas Van Breugel, Delft

University of Technology

Polymer Concrete for Sustainable Development and the Innovative Use of Recycled Glass in Polymer Concrete 9:20 am Paul Mellon, President, Novetas Solutions LLC, Philadelphia, PA

Shrinkage, Creep, and Moisture Transport in
Polymer-Based Repair Materials 9:40 am
Muhammad K. Rahman, Professor, King Fahd University of Petroleum
and Minerals, Dhahran, Saudi Arabia; and M.H. Baluch, King Fahd
University of Petroleum and Minerals

State of Practice in Polymer Concrete Overlays 10:00 am
David W. Fowler, Professor, The University of Texas, Austin, TX; and
David P. Whitney, The University of Texas

Frontiers in the Use of Polymers in Concrete, Part 1 (cont.)

SHERATON 2

A New Latex-Modified Cement Paste Incorporating
Carbon Nanotubes
10:20 am
Mahmoud M. Reda Taha, Associate Professor, University of New
Mexico, Albuquerque, NM; Eslam Soliman and Usama F. Kandil,
University of New Mexico

"Green" Novolac-Cementitious Overlays on Industrial
Floors in Wet Environments 10:40 am
Floyd E. Dimmick, Manager and Technical Director, Crown Polymers,
LLC, Huntley, IL

Effect of Water-Soluable Polymers as Self-Curing Agent on
Portland Cement Mixes Incorporating Silica Fume
11:00 am
Amr El-Dieb, Professor, United Arab Emirates University, Al Ain,
United Arab Emirates; and A.A.M Mahmoud, United Arab Emirates
University

Rehabilitation of Edouard Pare Bridge Using LMC Overlay 11:20 am Jacques A. Bertrand, President, Béton Mobile du Québec, Inc, Lava, Quebec, Canada

**International Session: Tall Buildings** 

SHERATON 1

Sponsored by the ACI International Committee

A special presentation will be made on the response of concrete buildings during the 27 February 2010 Chilean Earthquake.

Session Co-Moderators: H.S. Lew

Senior Structural Engineer

National Institute for Standards and

Technology

Gaithersburg, MD

Mario A. Chiorino

Professor

Politecnico di Torino, Facoltá di

Architettura Torino, Italy

Tall and Innovative: New Ambitions for Concrete Tall

**Buildings** 

9:00 am

David Scott, Principal, ARUP, New York, NY

Some Recent Tall Concrete Buildings in Brazil

9:30 am

Mario Franco, Partner, Escritório Técnico Julio Kassoy e Mario Franco, Eng. Civis Ltda, São Paulo, Brazil

Costanera Center: Extreme Height in Chile

10:00 am

Rene Lagos, President, Rene Lagos Associates, Santiago, Chile

**Super-tall Residential Towers** 

10:30 am

William F. Baker, Partner, Skidmore, Owings & Merrill, Chicago, IL; and James J. Pawlikowski, Skidmore, Owings & Merrill, Chicago, IL

Tall Concrete Buildings (Costanera Center) in Chile and Their Seismic Performance During the February 2010 Offshore Maule Chilean Earthquake

11:00 am

Ronald Klemencic, President, Magnusson Klemencic Associates,

Seattle, WA

**Questions and Discussions** 

11:30 am

**Quality Management Systems in the Concrete Industry** SHERATON 5 Sponsored by ACI Committee 121, Quality Assurance Systems for Concrete

Session Co-Moderators: Ryan K. Riehle

President and CEO BuildWays Corporation

Pittsburgh, PA

Stephen Marchese

President

**Future Tech Consultants** 

Minola, NY

This technical session will provide guidance, examples, and experiences demonstrating quality management tools and systems within the concrete industry. This session will be useful to owners, architects, engineers, material suppliers, and consultants.

Quality Management System for the Trans Hudson Express
(THE) Project 9:00 am

**Johan C.F. Schor**, Vice President of Quality Management, STV Incorporated, New York, NY

Quality Assurance on Port Authority of NY & NJ Projects 9:25 am
Casimir A. Bognacki, Chief of Materials Engineering Unit, Port
Authority of New York & New Jersey, Jersey City, NJ

Constuctor Quality Management at the WTC Transportation
Hub Project 9:50 am

**Thomas Tyler**, Quality Manager, Skanska USA Civil Northeast, Whitestone, NY

**Running a Large QAS Concrete Program 10:15 am Michelle E. Walters**, Structural Engineer, Hatch Mott MacDonald, Toronto, ON, Canada

Quality Management Methods for the Manufacture of
Chemical Admixtures
Thomas M. Greene, Regional Technical Services Manager, W.R. Grace
& Co., Houston, TX

Quality Management Systems in the Concrete Industry (cont.)

**SHERATON 5** 

Quality Management Methods for the Manufacture of
Portland Cement
Paul D. Brooks, Senior Technical Engineer, Holcim (US) Inc.,
Albany, NY

In-Transit Process Control for Ready Mixed Concrete

11:30 am

Eric P. Koehler, Research Engineer, W.R. Grace & Co., Cambridge,
MA; Joe Sostaric, RS Solutions LLC; and Tim A. Durning,
W.R. Grace & Co.

#### What About Adhesive Anchors? Part 1

SHERATON 3

Sponsored by ACI Committees 355, Anchorage to Concrete, and 548, Polymers and Adhesives to Concrete

Session Co-Moderators: Donald F. Meinheit

**Affiliated Consultant** 

Wiss, Janney, Elstner Associates, Inc.

Chicago, IL

Richard E. Wollmershauser Independent Consultant Principal Richard E. Wollmershauser Consulting

Tulsa, OK

As the ACI 318 Code Committee adopts design procedures for adhesive anchors into the code and the memories of the failures of adhesive anchors in the Boston Central Artery Tunnel ceilings are still fresh in our minds, it is appropriate to review the subject of adhesive anchors. These presentations cover the full breadth of technical information being asked by design professionals and includes design, installation, qualification, and inspection requirements, and continues to discuss the characteristics of sustained load behavior and other specific anchor considerations.

### Adhesive Anchors—Requirements for Their Reliable Use in Concrete Construction 9:00 am

**Werner A.F. Fuchs**, Director of Fastening Technical Research, University of Stuttgart Institute of Construction Materials, Stuttgart, Germany; and **Rolf Eligehausen**, University of Stuttgart Institute of Construction Materials

Draft Design and Qualification Provisions for Adhesive
Anchors in Concrete
9:20 am
John F. Silva, Director of Codes and Approvals, Hilti North America,
San Rafael. CA

Adhesive Anchors: A Comparison of Testing, Qualification, and
Design between the USA and Europe
9:40 am
Jake Olsen, Managing Director, Power Fasteners, Shanghai, China;
and Andra Hoermann-Gast, Consultant to ICC-ES

What About Adhesive Anchors? Part 1 (cont.)

SHERATON 3

Installation of Adhesive Anchors—Theory and Practice 10:00 am Philipp Grosser, PhD Candidate, University of Stuttgart Institute of Construction Materials, Stuttgart, Germany; Rolf Eligehausen and Werner A.F. Fuchs, University of Stuttgart Institute of Construction Materials

Building Code Requirements for Inspections of Adhesive
Anchors in Concrete 10:20 am
Brian C. Gerber, Senior Structural Engineer, ICC Evaluation Services,

Inc., Whittier, CA; and Mahmut Ekenel, International Code Council

Adhesive Anchors in Slabs of Marginal Thickness—
A Post-Mortem 10:40 am
Andrew Budek-Schmeisser, Assistant Professor, New Mexico

Institute of Mining and Technology, Socorro, NM; and Claudia Wilson, New Mexico Institute of Mining and Technology

Design Method for Splitting Failure Mode of Adhesive Anchor Systems

11:00 am

**Jörg Asmus**, Principal and Structural Engineer, Ingenierburo Eligehausen und Asmus, Stuttgart, Germany

Japanese Guidelines for Embedment Depth and Edges on
Bonded Anchor Tensile Resistance
11:20 am
Katsuhiko Nakano, Professor, Niigata Institute of Technology,
Kashiwazaki, Niigata, Japan; Yasuhiro Matsuzaki, Tokyo University
of Science; and Tomoaki Sugiyama, Taisei Corporation

ACI-CRSI Adhesive Anchor Installation Certification Update 11:40 am Neal S. Anderson, Vice President of Engineering, Concrete Reinforcing Steel Institute, Schaumburg, IL; and Donald F. Meinheit, Wiss, Janney, Elstner Associates, Inc.

√International Lunch \$30 U.S. per person CHICAGO 7

Hosted by the ACI International Committee

Speaker: Vincent Mages

Vice President of Climate Change

Initiatives Lafarge Cement Paris, France



Topic: World Business Council for

Sustainable

Development Cement (WBCSD)

Sustainability Initiative

Join other ACI attendees for a special presentation from Vincent Mages at the International Lunch. Vincent Mages is the Vice President of Climate Change Initiatives at Lafarge Cement. Prior to this role, he was the Vice President of Group Internal Communications. Mr. Mages has occupied various positions in France and Japan, all which have been related to cement, aggregates, and gypsum activities, as well as in marketing business development and strategy. During his presentation, he will highlight the cement industry global initiatives to reduce CO<sub>2</sub>, the WBCSD Cement Sustainability Initiative, and the role of cement and concrete in sustainable construction.

#### PREREGISTRATION IS REQUIRED TO ATTEND.

Tickets may be purchased at the ACI Registration Desk up to 24 hours prior to the event, based on availability. Please notify the ACI Registration Desk if you have any dietary restrictions.

Building Information Modeling in the Concrete Industry, Part 2

SHERATON 4

Sponsored by ACI Committee 118, Use of Computers

Session Co-Moderators: Allan P. Bommer

Chief Design Engineer Bentley Systems, Inc.

Seattle, WA

Phillip J. Antis

Principal, Manager Structural Engineering

AECOM Arlington, VA

The presentations in this session will illustrate successes, failures, problems, and the potential of using Building Information Modeling (BIM) for concrete structures in any or all phases of a project (design, detailing, fabrication, construction, and operation). Some presentations will be project-specific and others will cover topics such as industry standards, interoperability, and tolerance/fit issues.

#### A Contractor's Experiments with BIM

2:00 pm

James T. Davy, Manager of Virtual Construction, McHugh Construction Co., Chicago, IL

**Building Information Modeling From Design to Fabrication 2:30 pm Scott Hammond**, Industry Segment Manager—Structural Engineering, Autodesk, Inc., Waltham, MA

Utilization of an Integrated Reinforced Concrete Model from Design through Construction and Beyond 3:00 pm Santanu Das, Vice President—Structural Group, Bentley Systems, Inc., Yorba Linda, CA; and Jeffrey N. Cochrane, Applied Systems Associates, Inc.

Concrete BIM: When "Good Enough" BIM Doesn't Cut It 3:30 pm Alistair Wells, Sales and Marketing Manager, Tekla, Inc., Kennesaw, GA

#### Rebar Detailing for BIM

4:00 pm

Richard Birley, President, Condor Rebar Consultants, Inc., Vancouver, BC, Canada

IFCs for Concrete Construction—Current State of the Industry 4:30 pm Edwin T. Dean, Vice President, Nishkian Dean, Portland, OR

Frontiers in the Use of Polymers in Concrete, Part 2 SHERATON 2
Sponsored by ACI Committee 548, Polymers and Adhesives
for Concrete

Session Co-Moderators: Mahmoud M. Reda Taha

Associate Professor University of New Mexico

Albuquerque, NM

David W. Fowler Professor University of Texas

Austin, TX

This session focuses on innovative uses of polymers in concrete. These include new types of polymer admixtures, new applications of polymer concrete, structural analysis of new polymer concrete systems, ultra-high-strength polymer concrete, new developments for epoxy modified mortars, the use of saturated acrylic polymers (SAP) for internal curing, and others.

#### **Rapid Concrete Bridge Overlays**

2:00 pm

**Michael M. Sprinkel**, Associate Director, Virginia Transportation Research Council, Charlottesville, VA

Performance-Based Aspects and Constructability of Bridge
Deck Latex Modified Concrete Overlays with and without
Fibrous Additives 2:25 pm

**Mohammad A. Al-hassan,** Assistant Professor, Purdue University-Fort Wayne, Fort Wayne, IN; and **Suleiman Ashur**, Purdue University-Fort Wayne

Use of Novalac Polymer Concrete in Sewer Application and Why 2:50 pm Joseph A. Nuciforo, Vice President, JPCI Services, Mesa, AZ

VESLMC Use on the Pulaski Skyway 3:15 pm Chris Davis, Northeastern Manager, CTS Cement Manufacturing Corp, Belmar, NJ

Frontiers in the Use of Polymers in Concrete, Part 2 (cont.)

SHERATON 2

Fundamentals and Applications of Hybrid Fiber-Reinforced
Polymers Combined with Concrete 3:40 pm
Thomas Kang, Assistant Professor, University of Oklahoma, Norman,
OK; Woosuk Kim, University of Oklahoma; and Dong-Uk Choi,
Hankyoung National University

Properties of Economical Latex-Modified Concrete Using Recycled
Paint 4:05 pm

**Aly Said,** Assistant Professor, University of Nevada-Las Vegas, Las Vegas, NV; and **Oscar Quiroz**, University of Nevada-Las Vegas

Architectural Applications for Precast Polymer Concrete 4:30 pm Constantin Bodea, President, Metro Cast Corp., Westland, MI; and David W. Fowler and David P. Whitney, The University of Texas



### International Forum for International Chapters and Partners

SHERATON 1

Sponsored by the ACI International Committee

Session Moderator: Luke M. Snell

**Eminent Scholar** 

Del E. Web School of Construction

Arizona State University

Tempe, AZ

This forum is to update our international chapters on certification programs that are available through ACI and student program ideas, as well as provide general discussions on how to improve your chapter activities.

This forum is open to all attendees. Chapter officers are encouraged to attend.

#### Introduction

2:00 pm

**Luke M. Snell**, Eminent Scholar, Del E. Web School of Construction, Arizona State University, Tempe, AZ

#### **ACI Certification Programs**

2:10 pm

John K. Conn, Manager, Certification Operations and Chapters, American Concrete Institute, Farmington Hills, MI

The Local Sponsoring Group (LSG) for Certification 2:40 pm
Roberto A. Nunez, Lecturer and Senior Construction Extension
Specialist, North Carolina State University, Raleigh, NC

Saudi Arabia Building Code Creates Need for Certifications 3:10 pm Mohammad H. Al-Nagadi, President, Saudi Building Code National Committee, Riyadh, Saudi Arabia

#### **Student Competitions in Brazil**

3:40 pm

Selmo C. Kuperman, Director, DESEK, Ltd., São Paulo, Brazil

#### ACI Student Competitions

4:10 pm

Lawrence H. Taber, Structural Engineer, Black & Veatch, Kansas City, MO

Comments and Open Discussion on Chapter Activities 4:40 pm
Luke M. Snell, Eminent Scholar, Del E. Web School of Construction,
Arizona State University, Tempe, AZ

#### Sustainable Design in Structural Concrete

**SHERATON 5** 

Sponsored by ACI Committees 130, Sustainability of Concrete, and 351, Foundations for Equipment and Machinery

Session Co-Moderators: James K. Hicks

Executive Vice President of Research and

Development CERATECH Inc. Baltimore, MD

Mukti L. Das

Principal Civil Engineer Bechtel Power Corporation

Frederick, MD

This session will include papers on concrete applications that incorporate sustainable design solutions for materials and structures. Ways to reduce the environmental impact associated with concrete materials and construction of structural elements will be explained and discussed. Methods of training and educating engineers and designers in new techniques and practices that leverage concrete's sustainable advantages will be explored. This session will include examples of sustainable production of concrete, material optimization, function-specific design, and cutting-edge methods and applications that can be used to increase the sustainability of concrete structures.

ACI is a U.S. Green Building Council (USGBC) Education Provider. ACI is committed to enhancing the ongoing professional development of the green building industry through top-quality, third-party reviewed education courses or events.



The USGBC has approved the technical and instructional quality of this course for 3 GBCI CE Hours towards the LEED Credential Maintenance Program.

Sustainable Design of Heavy Industrial Concrete Structures 2:00 pm Javeed Munshi, Principal Engineer, Bechtel Power Corporation, Frederick, MD; and Mukti L. Das, Bechtel Power Corporation

Sustainable Design in Structural Concrete (cont.) SHERATON 5

New Development in Lightweight Insulating Concrete 2:30 pm
Neal S. Berke, Principal Scientist, Grace Construction Products,
Cambridge, MA

Sustainable Benefits of On-Site Concrete Batch Plants 3:00 pm Kelsey Edwardsen, Structural Engineer, Bechtel Corporation, Richland, WA

How Do We Teach a New Generation of Engineers Green Building and Sustainability?

3:30 pm
John T. Kevern, Assistant Professor of Civil Engineering, University

of Missouri-Kansas City, Kansas City, MO

Precast Possibilities for Sustainable Projects 4:00 pm Larry Rowland, Manager Marketing and Technical Service, Lehigh Cement Company, Allentown, PA

Achieving a Sustainable Future Through Performance,
Not Prescription
4:30 pm
Mark F. Chrzanowski, Principal Structural Technologist, CH2MHILL,
Newberry, FL



#### What About Adhesive Anchors? Part 2

SHERATON 3

Sponsored by ACI Committees 355, Anchorage to Concrete, and 548, Polymers and Adhesives to Concrete

Session Co-Moderators: Richard E. Wollmershauser

Independent Consultant Principal Richard E. Wollmershauser Consulting

Tulsa, OK

Donald F. Meinheit Affiliated Consultant

Wiss, Janney, Elstner Associates, Inc.

Chicago, IL

As the ACI 318 Code Committee adopts design procedures for adhesive anchors into the code and the memories of the failures of adhesive anchors in the Boston Central Artery Tunnel ceilings are still fresh in our minds, it is appropriate to review the subject of adhesive anchors. These presentations cover the full breadth of technical information being asked by design professionals and includes design, installation, qualification, and inspection requirements, and continues to discuss the characteristics of sustained load behavior and other specific anchor considerations.

Stress Versus Time-to-Failure Test Method for Evaluating the
Sustained Load Performance of Adhesive Anchor Systems
in Concrete 2:00 pm

**Todd Davis,** PhD Candidate, University of Florida, Gainesville, FL; and **Ronald A. Cook**, University of Florida

Behavior and Design of Bonded Anchors Under Sustained Load

2:20 pm

Rolf Eligehausen, Professor, University of Stuttgart Institute of Construction Materials, Stuttgart, Germany; and Ronald Blochwitz and Werner A.F. Fuchs, University of Stuttgart Institute of Construction Materials

Evaluation of Long-Term Behavior of Bonded Anchors—Approval
Testing Versus Long-Term Results 2:40 pm
Hannes A. Spieth, Director of Technology Transfer and Research,

Fischerwerke GmbH & Co., Waldachtal, Germany

What About Adhesive Anchors? Part 2 (cont.)

**SHERATON 3** 

Effect of Environmental Exposure on the Creep Behavior of
Adhesive Anchors 3:00 pm
Adham El Menoufy, Graduate Student, University of Waterloo,
Waterloo, ON, Canada; Hannah C. Schell, Ministry of Transportation
Ontario; and Khaled A. Soudki and Abdel ElSayed, University of
Waterloo

Probability-Based Assessment of Short- and Long-Term
Load Bearing Behavior of Bonded Anchors 3:20 pm
Konrad Bergmeister, Professor, BOKU-University of Natural Resources
and Applied Life Science, Vienna, Austria; and Ronald Mihala,
BOKU-University of Natural Resources and Applied Life Science

Curing and Load Performance of Adhesive Anchor Systems
Installed at Low Temperatures
3:40 pm
Ingo Alig, Head of Physics Department, German Plastics Institute,
Darmstadt, Germany; Ralf Neuerburg, Hilti Corporation; and Dirk
Lellinger and Frank Bohm, Deutsches Kunststoff Institute

Effect of Fly Ash as Cement Replacement on the Short-Term Bond
Strength of Adhesive Anchor Systems 4:00 pm
Peter Grzesik, Manager of Anchor Approvals & Project Engineer, Hilti
North America, Tulsa, OK

Simulation of Adhesive Anchoring Systems in Concrete 4:20 pm
Fritz Wall, Director—International Regulations and Approvals, Hilti
Corporation, Schaan, Liechtenstein; and Bernhard Winkler and Yijun
Li, Hilti Corporation

Strength of Adhesive Anchor Embed Plates in Precast Concrete
Under Welding and Eccentric Shear
4:40 pm
Michael G. Eilers, PhD Candidate, Coreslab Structures Inc., Kansas
City, KS; and Ganesh Thiagarajan, University of Missouri-Kansas City

## Thursday, March 25, 2010 8:00 am-5:00 pm

✓ ACI/PCA Simplified Design of Concrete Buildings of Moderate Size and Height Seminar 7:30 am Registration, coffee and pastries available \$597 Non-Member Registration Fee \$457 ACI National Members Registration Fee \$125 Full-Time Students (with proof of enrollment)

**ONTARIO** 

Speakers:

Mahmoud Kamara Senior Structural Engineer Portland Cement Association Skokie, IL



Lawrence C. Novak Manager, Building Structures Portland Cement Association Skokie, IL



This one-day seminar will focus on the design of concrete buildings of moderate size and height, in accordance with the latest information in ACI 318-08, 2009 IBC, and ASCE 7-05. The purpose of this seminar is to provide civil, architectural, and structural engineers with ways to simplify design procedures, thus reducing the time required to analyze, proportion, and detail small to moderate size projects while still complying with ACI 318-08, "Building Code Requirements for Structural Concrete." Various design considerations that need to be addressed in the structural design and detailing of reinforced concrete buildings will be discussed. Numerous time-saving shortcuts and design aids will be introduced.

#### ACI Board Committees and Chairs

**Certification Programs Chapter Activities** Construction Liaison Convention **Educational Activities** Financial Advisory Honors and Awards International Marketing Membership **Publications** Responsibility in Concrete Construction Standards Board Student and Young Professional **Activities Committee** Technical Activities

G. Terry Harris
Dawn L. Miller
Michael J. Schneider
Kari Yuers
Cecil L. Jones
William E. Rushing, Jr.
Thomas Verte
Luke M. Snell
Beverly A. Garnant
Tarek S. Khan
John S. Popovics
Jeffrey W. Coleman

Andrea Schokker David H. Sanders

#### **ACI Convention Committee**

Kari Yuers, Chair Katie Bartojay Joseph J. Biernacki Ramon L. Carrasquillo James H. Hanson Cecil L. Jones Carlos A. Lazaro William J. Lyons Kirk L. McDonald Debrethann R. Orsak Aimee Pergalsky William E. Rushing Jr. David H. Sanders Michael J. Schneider Tanya K. Schnier Lawrence H. Taber Renée J. Lewis, Staff Liaison

#### **Notes**

### **Notes**

#### **Notes**

## Session Attendance Tracking Form for the ACI Spring 2010 Convention

Chicago, IL • March 21-25, 2010

| Use this form to track your attendance at ACI sessions. This form can be submitted to state boat that allow self-reporting of Continuing Education activities as evidence of participation. In mos cases, 1 contact hour is equal to 1 Professional Development Hour (PDH). Check with your state board for acceptance criteria. Please note: ACI does not track and cannot provide documentation confirming attendee participation or attendance at any ACI session held during the convention. | t                  |
|--|--------------------|
| Instructions: Check off each session you attended and write in the number of PDH credits you earned for each day.  |                    |
| Remember that 1 PDH is equal to a contact hour (nominal) of instruction or presentation, rounded down to the nearest half-hour.  | ed                 |
| SUNDAY, MARCH 21, 2010  2:00 p.m5:00 p.m.  Durability for Concrete of Pavements (325)  Durability and Long-Term Performance of SCC (237/201)  Ultra High-Performance Concrete for Bridges (343)  Innovations in Fire Design of Concrete Structures (216)  Incorporating the ASCE Body of Knowledge (E802)  | PDH                |
| 7:30 p.m10:00 p.m.  123 Forum: Fly Ash Contributes to Sustainable Concrete Construction—Is it Justif to Reclassify the Material as a Hazardous Waste? (123)  | <b>PDH</b><br>fied |
| MONDAY, MARCH 22, 2010 9:00 a.m12:00 p.m.  Research in Progress (123)  Extreme Tilt-up Performance: Design to Construction, Part 1 (551)  Textile Reinforced Concrete—Modern Developments, Part 1 (549)  Recent Advances in Maintenance and Repair of Concrete Bridges (345)  Technical Session in Honor of Tony Fiorato, Part 1 (ACI Illinois Chapter)  | PDH                |
| 2:00 p.m5:00 p.m.  Extreme Tilt-up Performance: Design to Construction, Part 2 (551)  Technical Session in Honor of Tony Fiorato, Part 2 (ACI Illinois Chapter)  Textile Reinforced Concrete—Modern Developments, Part 1 (549)  Serviceability Limit States for Concrete Structures (343)  Effects of Micro- and Macro-cracking on Durability (224/201)  | PDH                |
|  |                    |

| TUESDAY, MARCH 23, 2010 9:00 a.m12:00 p.m.  Advances in the Material Science of Concrete, Part 1 (236)  Design Using the Strut-and-Tie Method: Examples and Approaches, Part 1 (2)  Concrete Repair—Xtreme Conditions, Part 1 (ACI Illinois Chapter)  Extreme Concrete History (120)  Structural Health Monitoring for Bridge Design and Evaluation (343)                   | <b>3 PDH</b>      |
|---|-------------------|
| 2:00 p.m5:00 p.m.  ☐ Open Paper Session (123)  ☐ Contractors' Day Session (ACI Illinois Chapter)  ☐ Advances in the Material Science of Concrete, Part 2 (236)  ☐ Concrete Repair—Xtreme Conditions, Part 2 (ACI Illinois Chapter)  ☐ Design Using the Strut-and-Tie Method: Examples and Approaches, Part 2 (40 ☐ Hot Topic Session: Reconstruction Efforts in Haiti (HTC) | <b>3 PDH</b> 445) |
| WEDNESDAY, MARCH 24, 2010 9:00 a.m12:00 p.m.  ☐ International Session: Tall Buildings (IC) ☐ Frontiers in the Use of Polymers in Concrete, Part 1 (548) ☐ What About Adhesive Anchors? Part 1 (548/355) ☐ Building Information Modeling in the Concrete Industry, Part 1 (118) ☐ Quality Management Systems in the Concrete Industry (121)                                  | 3 PDH             |
| 2:00 p.m5:00 p.m.  ☐ International Forum for International Chapters and Partners (IC) ☐ Frontiers in the Use of Polymers in Concrete, Part 2 (548) ☐ Sustainable Design in Structural Concrete (351/130) ☐ What About Adhesive Anchors? Part 2 (548/355) ☐ Building Information Modeling in the Concrete Industry, Part 2 (118)   | 3 PDH             |
| Enter your name and address here  |                   |
| DAILY PDH TOTALS AVAILABLE  Total completed on Sunday, 3/21/10  Total completed on Monday, 3/22/10  Total completed on Tuesday, 3/23/10  Total completed on Wednesday, 3/24/10  Total number of PDHs completed  |                   |



### See you in Pittsburgh!

#### **Future ACI Conventions**



Fall 2010 Green Concrete in the Steel City

October 24-28, 2010 Westin & David L. Lawrence Convention Center Pittsburgh, PA



Spring 2011 Concrete—The Strength of Florida

April 3-7, 2010 Marriott Tampa Waterside & Westin Harbour Island Tampa, FL



American Concrete Institute P.O. Box 9094 Farmington Hills, MI 48333-9094 Phone: 248-848-3700

Fax: 248-848-3701 www.concrete.org