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Engineering Continuing Education
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AUBURN UNIVERSITY SAMUEL GINN COLLEGE OF ENGINEERING

Engineering Continuing Education
Department of Civil Engineering
Alabama Technology Transfer Center

present the

Fifty-Fifth Annual Transportation Conference

February 23-24, 2012

Sponsored by:

*Alabama Department of Transportation
Federal Highway Administration
Auburn University
Alabama Road Builders Association
Alabama Asphalt Pavement Association
Alabama Concrete Industries Association
Association of County Engineers of Alabama
Institute of Transportation Engineers, Alabama Section
Alabama Concrete Pipe Association
American Council of Engineering Companies of Alabama
American Concrete Pavement Association,
Southeast Chapter
Bridge Construction Association of Alabama
ASCE, Alabama Section*

About the Conference

Auburn's Civil Engineering Department and the Program Committee have designed the Fifty-Fifth Annual Transportation Conference for federal and state highway personnel, road building contactors, general contractors, heavy construction contractors, utility contractors, county engineers, consulting engineers, construction material vendors, researchers, professional society representatives, and university faculty members. It provides an opportunity for these individuals to share innovative advances in transportation planning, engineering design, and construction.

The conference presents technical presentations to provide a forum for the exchange of ideas within the highway engineering and construction professions. The sponsorship of the annual conference is indicative of the broad cross section of interest in the programs of this one and a half day continuing education event.

Location and Schedule

The conference will be held at the Renaissance Montgomery Hotel & Spa at The Convention Center, located at 201 Tallapoosa Street, Montgomery, Alabama.

Final registration and check-in will be held from 8:30 a.m. to 10:30 a.m. in the Main Lobby on Thursday, February 23, 2012. The Opening General Session begins at 10:30 a.m. in the Performing Arts Center on the second floor. The conference will adjourn Friday afternoon, February 24, 2012.

Registration and Fee

All persons attending the conference must register. The registration fee of \$200 includes all sessions, program materials, refreshment breaks, and luncheons. Additional luncheon tickets are available at the registration desk. Student and ALDOT retiree registration is \$50.

To register, please complete the attached registration form and return it to the address indicated, or call us at (800)446-0382, (334) 844-4370, or FAX (334) 844-5715. On-line registration is available at www.engce.auburn.edu

Accommodations

Participants are responsible for making their own lodging arrangements. A block of rooms have been reserved at the conference hotel.

Cancelation Policy

Due to commitments to our speakers and facilities, the registration fee is non-refundable if a registrant withdraws less than five business days before the program starts. Substitutions may be made at any time, please notify us in advance if possible. No-shows will be liable for the entire conference fee.

Auburn University reserves the right to cancel any program due to insufficient registrations. This decision is usually made no later than five business days prior to the event. If a program is canceled for any reason, all fees will be refunded. Auburn University will not be responsible for travel expenses incurred by a registrant as the result of a canceled program.

Continuing Education

Participants in this conference will be able to attend up to eight (8) hours of technical programs. Auburn University makes every effort to ensure that its technical programs conform to the requirements of the State of Alabama Board of Licensure for Professional Engineers and Land Surveyors for the award of Professional Development Hours to support the annual renewal of professional registration.

Participants with Disabilities

It is the policy of Auburn University to provide accessibility to its programs and reasonable accommodations for persons defined as having disabilities under the Americans with Disabilities Act of 1990. Please contact us at least two weeks prior to the program so that proper consideration can be given to any special needs.

Program Handouts

Handouts of the material presented at each session will be available for download two weeks after the conference. Presentations can be downloaded from :

<http://www.alabamat2.org>

Program Committee

Alabama Department of Transportation (ALDOT)

John R. Cooper	Ronnie Baldwin
Don Vaughn	Maxine Wheeler
Don Arkle	Buddy Black
Rex Bush	Bob Jilla
Lamar Woodham	Ed Phillips
Mike Harper	Jeff Brown
John Eagerton	George Conner
Buddy Cox	Terry McDuffie
Ron Green	William Adams
Tim Barnett	Steve Walker
Barry Fagan	

Auburn University

Brian Anderson	Robert Barnes
Larry Sellers	Bob Vecellio
David Timm	Rod Turochy
Wesley Zech	Anton Schindler
Garry Havron	

Federal Highway Administration

Mark Bartlett and Robert King, Montgomery, Alabama

Alabama Road Builders Association

Billy Norrell, Montgomery, Alabama

Alabama Asphalt Pavement Association

Mel Monk, Montgomery, Alabama

Alabama Concrete Industries Association

John Sorrell, Montgomery, Alabama

Association of County Engineers of Alabama

Randy Cole, Columbiana, Alabama

Institute of Transportation Engineers, Alabama Section

Scott Holladay, Columbiana, Alabama

American Concrete Pavement Association, Southeast Chapter

Robert Taylor, Montgomery, Alabama

American Council of Engineering Companies of Alabama

Renee Casillas, Montgomery, Alabama

Bridge Construction Association of Alabama Alabama Concrete Pipe Association

Fred Crawford, Montgomery, Alabama

Alabama Section, ASCE

David Webber, Mobile, Alabama

2012 Conference Outline

Thursday, February 23, 2012

8:30 a.m. **Registration Opens**

10:30 a.m. **Opening General Session**-Performing Arts Center
Presiding: Dr. Anton Schindler, Associate Professor and Director of the Highway Research Center, Department of Civil Engineering, Auburn University, Auburn, AL

Opening Remarks

Federal Perspective on Transportation
Mr. Victor Mendez, Administrator, Federal Highway Administration, Washington, DC

Economic Development in Alabama
Mr. Greg Canfield, Director, Alabama Development Office, Montgomery, AL

12:00 p.m. **Governor's Luncheon** - Exhibit Hall C
Presiding: Dr. John Mason, Associate Provost and Vice-President for Research
Auburn University, Auburn, AL

**The Honorable Robert Bentley, Governor (Invited)
State of Alabama**

1:30 p.m. **Concurrent Technical Sessions**

3:00 p.m. **Break**

3:30 p.m. **Concurrent Technical Sessions**

5:00 p.m. **Adjourn**

Friday, February 24, 2012

8:30 a.m. **Concurrent Technical Sessions**

10:00 a.m. **Break**

10:30 a.m. **Concurrent Technical Sessions**

12:00 p.m. **Transportation Director's Luncheon**-Exhibit Hall C
Presiding: Dr. Michael Stallings, Head and Professor, Department of Civil Engineering, Auburn University, Auburn, AL

**John R. Cooper, Transportation Director (Invited)
Alabama Department of Transportation**

1:30 p.m. **Adjourn**

1:30 to 3:00 p.m.

Deepwater Horizon Oil Spill Impacts

Meeting Room: Alabama A

Presiding: Mike Harper, Assistant Chief Engineer, Operations
ALDOT, Montgomery, AL

1:30 p.m. **Deepwater Horizon Oil Spill Impacts on Alabama Beaches**
Dr. Joel Hayworth, Department of Civil Engineering, Auburn
University, Auburn, AL

2:00 p.m. **Application of Coastal Engineering Principles in Response to
the Deepwater Horizon Disaster: Lessons Learned in Coastal
Alabama**
Dr. Bret Webb, Department of Civil Engineering, University of
South Alabama, Mobile, AL

2:30 p.m. **Impact of Oil Spill on the Alabama Gulf Coast**
Mayor Tony Kennon
City of Orange Beach, Orange Beach, AL

Bridges

Meeting Room: Alabama B

Presiding: John (Buddy) Black, State Bridge Engineer
ALDOT, Montgomery, AL

1:30 p.m. **Recent Trends in Texas Bridge Aesthetics**
Dean Van Landuyt
Texas Department of Transportation, Austin, TX

2:00 p.m. **Replace 14 Bridges in 10 Weekends? The Massachusetts
Fast 14 Project**
Michael Culmo
CME Associates, Inc., East Hartford, CT

2:30 p.m. **AASHTO Guide Specification for Seismic Design—Alabama
Bridges**
Dr. Justin Marshall, Department of Civil Engineering, Auburn
University, Auburn, AL

Traffic Engineering

Meeting Room: Alabama CDE

Presiding: Scott Holladay, President
Alabama Section ITE

1:30 p.m. **Reverse Angle Parking: Lessons in Implementation**
Jennifer White
Traffic Engineering, Mobile, AL

2:00 p.m. **Automated Photo Enforcement – History and Overview**
Mark Bedard and Richard Kosina
GATSO USA, Beverly, MA

2:30 p.m. **Thermal Imagery Video Detection**
Jamie Jones
Southern Lighting & Traffic, Northport, AL

3:30 to 5:00 p.m.

Highway Safety

Meeting Room: Alabama A

Presiding: Don Arkle, Assistant Chief Engineer, Policy and Planning
ALDOT, Montgomery, AL

3:30 p.m. **Alabama's Strategic Highway Safety Plan**
Tim Barnett
ALDOT, Montgomery, AL

4:00 p.m. **Drive Safe Revolution**
Tony Harris
ALDOT, Montgomery, AL

4:30 p.m. **Distracted Driving Issues**
Clay Ingram
AAA Alabama, Birmingham, AL

Concrete

Meeting Room: Alabama B

Presiding: Steven Ingram, Testing Engineer, Bureau of Materials and
Tests, ALDOT, Montgomery, AL

3:30 p.m. **Limestone Portland Cement for Sustainable and Durable
Construction**
Tim Cost
Holcim (US) Inc., Canton, MS

4:00 p.m. **Troubleshooting Concrete Specifications**
Michelle Wilson
Portland Cement Association, Skokie, IL

4:30 p.m. **Mitigation of Cracking in Cast-In-Place Box Culverts**
Dr. Anton Schindler, Department of Civil Engineering,
Auburn University, Auburn, AL

Stormwater Runoff Control

Meeting Room: Alabama CDE

Presiding: David M. Webber, President
ASCE Alabama Section

3:30 p.m. **New EPA Stormwater Requirements: Construction General
Permit**
Mike Mitchell
US EPA Region 4, Atlanta, GA

4:00 p.m. **New EPA Post-Construction Stormwater Requirements**
Mike Mitchell
US EPA Region 4, Atlanta, GA

4:30 p.m. **Benefits of Low Impact Develop regarding Post
Construction Stormwater Runoff**
Beth Stewart
Cahaba River Society, Birmingham, AL

8:30 to 10:00 a.m.

Surveying and Information Systems

Meeting Room: Alabama A

Presiding: William Adams, State Design Engineer
ALDOT, Montgomery, AL

8:30 a.m. **Alabama/Florida and Mississippi/Louisiana Boundary
Surveys**
Dr. Larry Crowley, Department of Civil Engineering,
Auburn University, Auburn, AL and
Milton Denny
Denny Enterprise, LLC, Tuscaloosa, AL

9:00 a.m. **Geographic Information Systems for Alabama**
Phillip Henderson, Alabama Geographic Information
Program Office, Montgomery, AL

9:30 a.m. **Surveying with T-LIDAR on Highway Projects**
Marshall McLeod
Marshall A. McLeod, PLS, LLC, Mobile, Alabama

Maintenance

Meeting Room: Alabama B

Presiding: George Conner, State Maintenance Engineer
ALDOT, Montgomery, AL

8:30 a.m. **Bridge Deck Repair Using Hydrodemolition**
Eric Christie
ALDOT, Montgomery, AL

9:00 a.m. **Fatigue Loadings on Overhead Sign Structures**
Dr. Fouad H. Fouad, Department of Civil, Construction,
and Environmental Engineering, University of Alabama
Birmingham, Birmingham, AL

9:30 a.m. **Controversial Content of the 2009 MUTCD**
Stacey Glass
ALDOT, Montgomery, AL

Asphalt Pavements

Meeting Room: Alabama CDE

Presiding: Mel Monk, Executive Director, Alabama Asphalt
Pavement Association, Montgomery, AL

8:30 a.m. **Pavement Factors Affecting Fuel Economy**
Dr. Richard Willis
National Center for Asphalt Technology, Auburn, AL

9:00 a.m. **Mechanistic-Empirical Pavement Design and DARWin
ME**
Chris Wagner
FHWA Resource Center, Atlanta, GA

9:30 a.m. **2009 and 2012 Test Track Updates**
Dr. Buzz Powell
National Center for Asphalt Technology, Auburn, AL

February 24, 2012

10:30 a.m. to 12:00 p.m.

When Disaster Strikes...

Meeting Room: Alabama A

Presiding: Ronnie Baldwin, State Office Engineer
ALDOT, Montgomery, AL

10:30 a.m. **Managing a Disaster: The Tuscaloosa Tornado**
Mayor Walter Maddox
City of Tuscaloosa, Tuscaloosa, AL

11:00 a.m. **ALDOT's Response and Recovery**
Robin Rhoden
ALDOT, Tuscaloosa, AL

11:30 a.m. **Learning from Extreme Events: Tornado Outbreaks of 2011**
Dr. Andrew J. Graettinger, Department of Civil,
Construction, and Environmental Engineering, University
of Alabama, Tuscaloosa, AL

Roadway and Roadside Design

Meeting Room: Alabama B

Presiding: Joe Blankenship, Roadway Design Engineer
ALDOT, Montgomery, AL

10:30 a.m. **The New Edition of the AASHTO Green Book**
Joe Ruffer
Mobile County, Mobile, AL

11:00 a.m. **Summary of Major Changes in the AASHTO
Roadside Design Guide**
Frank Julian
FHWA, Atlanta, GA

11:30 a.m. **Roundabouts: Key Design and Operational
Issues**
Mark Doctor, FHWA, Atlanta, GA, and
Scott Zehngraff, Georgia DOT, Atlanta, GA

Geotechnical Engineering

Meeting Room: Alabama CDE

Presiding: Kaye Chancellor Davis, Geotechnical Engineer, ALDOT,
Bureau of Materials and Tests, Montgomery, AL

10:30 a.m. **Conservativeness in Drilled Shaft Design When
Utilizing Rock Sockets**
Robert Thompson
Dan Brown and Associates, Montgomery, AL

11:00 a.m. **Bankhead Tunnel Leakage**
Luther Boudra
AMEC Engineering, Birmingham, AL

11:30 a.m. **Predicting Pile Setup (Freeze) for Driven Pile
Foundations**
Dr. Eric Stuart, Department of Civil Engineering,
University of South Alabama, Mobile, AL

PARKING

HOTEL: Renaissance Montgomery Hotel and Spa Parking Deck

The Renaissance Montgomery Hotel and Spa at the Convention Center occupies the entire block bordered by Tallapoosa Street (front), Commerce Street, Moulton Street and Bibb Street. Parking deck entrance is from the Bibb Street side of the hotel. There are 600 parking places (including valet)

Parking deck entrances are into the Hotel Second Floor and the Convention Center first and second floor. The elevators are different and marked.

Rates:

Self Park: 0-30 min. Free; Up to 2 hrs. - \$ 3.00; 2 to 6 hours \$6.00; 6 to 10 hours \$10.00; Overnight \$10.00

Valet Parking: 0 to 10 hours \$10.00; Overnight \$16.00

1. MATS Parking Deck

Located at the corner of Moulton and Bell Street.

Hours & Rates:

Monday-Friday 6:30 a.m. to 6:00 p.m. - \$1.00 per hour.

Monday-Friday 6:00 p.m. to 6:30 a.m. - no charge.

Friday 6:00 p.m. to Monday 6:30 p.m. (Weekends) - no charge.

MATS (Montgomery Area Transportation System) 334-241-2203

2. Biscuits / Riverwalk Stadium Parking

Open daily with no attendant and no charge

Game Days: \$4.00

Operated by the Montgomery Kiwanis Club (334-834-7929)

3. Park-ette Parking Area 334-265-7215

Located across Bibb Street between Lee and Commerce.

Private Parking during the week

Free Parking after 6:00 pm Friday through 6:00 pm Sunday

Please note: the permit only lot behind/southeast of this lot is not available without a permit 24 hours per day, seven days a week.

4. Embassy Suites Hotel

Located across Tallapoosa Street from the Renaissance Hotel.

Rates: \$5.00 per day. **Parking charges apply based on demand.**

5. Montgomery Chamber of Commerce Visitors Bureau

Located off Water Street under the train station.

Monday - Friday 6:00 a.m. to 5:00 p.m. parking with a permit only.

No charge to park Evenings and weekends

6. Commerce Street / Tallapoosa Street Lot

Located across from the front entrance to the hotel at the Northwest corner of Tallapoosa and Commerce Streets.

Monday - Friday 6:00 a.m. to 5:00 p.m. parking with a permit only.

No charge to park Evenings and weekends

Street Parking:

Metered Parking Spaces:

Meters apply Monday through Friday from 8 a.m. to 6:00 p.m.

No charge for Evenings, Weekends and Holidays

Non-Metered Parking Spaces

Non-metered diagonal spaces and median spaces (on Commerce Street between Tallapoosa and Montgomery Streets)

No restrictions or charges for parking at this time.

Please Note: Due to the rapidly developing renovation projects throughout Downtown Montgomery, there may be changes to this information that is beyond our control.

Fifty-Fifth Annual Transportation Conference Renaissance Montgomery Hotel and Spa at the Convention Center

February 23-24, 2012

ON LINE REGISTRATION AT: www.engce.auburn.edu

Please print or type; register one person per form; photocopy if more forms are needed.

Name _____ Last 4 digits SS# _____
Employer _____ Position _____
DOT Division/Bureau _____ Address _____ Zip+4 _____
City _____ State _____
Phone _____ Fax _____ E-mail _____
Registration Fee: \$200.00 Student and ALDOT Retiree's Registration Fee: \$50.00
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