

DRAFT

MONDAY
October 9, 2017

ETHICS

LOCATION: Brazos County Expo Complex
Texas Ballrooms

3:30–4:30 p.m.

Ethics – Session I — TxDOT Employees Only

5:00–6:00 p.m.

Ethics – Session II — Open to all Short Course Attendees

*Texas Board of Professional Engineers –
Professional Practice Update / Ethics:
Updates on Board rule changes within the
last year, general updates on initiatives the
Board is working on, information on
enforcement statistics, and the engineering
Code of Conduct.*

**David Howell, P.E.
Deputy Executive Director
Texas Board of Professional Engineers**

**This course was designed to satisfy the Texas SBPE requirements.*

OPENING SESSION

TUESDAY, OCTOBER 11

RUDDER AUDITORIUM

8:30 a.m. – Noon

ALTERNATIVE DELIVERY

Program and Session Co-Chairs:

Kristi Flagg, P.E., TxDOT
Project Finance, Debt and Strategic Contracts Division, TxDOT

Jason Crawford, P.E., TTI

Tuesday, October 10

Room: Rudder Theatre

Moderator:

Randy Grones, P.E.,

Project Finance, Debt and Strategic Contracts, TxDOT

1:30 – 1:45 p.m.

The Future of TxDOT's Alternative Delivery Program

Bill Hale, P.E.

Administration, TxDOT

1:45 – 2:10 p.m.

Breaking Ground with Alternative Delivery

Mike Midkiff, P.E.

Project Finance, Debt and Strategic Contracts, TxDOT

Matt McCarter

Project Finance, Debt and Strategic Contracts, TxDOT

2:10 – 3:00 p.m.

Myths, Mysteries, and More Surrounding Alternative Delivery

Jennifer Wright

Project Finance, Debt and Strategic Contracts, TxDOT

Greg Snider, P.E.

Houston District, TxDOT

Ceason Clemens, P.E.

Dallas District, TxDOT

Jerry Ramos, P.E.

Ramos Consulting, LLC

Amadeo Saenz, Jr., P.E.

J.D. Abrams, L.P.

3:00 – 3:30 p.m.

BREAK

Moderator:

Carol Luschen, P.E.

Project Finance, Debt and Strategic Contracts, TxDOT

3:30 – 4:00 p.m.

How to Package a Project for Alternative Delivery

Marcus Coronado, P.E.

Project Finance, Debt and Strategic Contracts, TxDOT

Jennifer Wright

Project Finance, Debt and Strategic Contracts, TxDOT

4:00 – 5:00 p.m.

Innovation, Savings, and Supplementing TxDOT Resources

Alan Esguerra, P.E. (3D Modeling and More!)

Lockwood, Andrews & Newnam, Inc.

Frank Holzmann, P.E.

Michael Baker International

Varuna Singh, P.E.

Houston District, TxDOT

Scott Hall

Fort Worth District, TxDOT

Valente Olivarez, Jr., P.E.

Corpus Christi District, TxDOT

David Casteel, P.E.

Williams Brothers Construction Co., Inc.

CONSTRUCTION I

Program and Session Co-Chairs:

Gina Gallegos, P.E., San Antonio District, TxDOT

Stephen Sebesta, TTI

Jon Epps, Ph.D., P.E., TTI

Tuesday, October 10

Room: MSC 2300 C

Moderator:

Gina Gallegos, P.E.

San Antonio District, TxDOT

Construction Engineering Inspection

1:30 – 1:55 p.m.

CEI Project Selection Process

Darlene Goehl, P.E., TTI

1:55 – 2:20 p.m.

Determining Level of Effort for Your District

Lea Jacobson, P.E.

San Antonio District, TxDOT

2:20 – 3:00 p.m.

Working the Forces–Pulling together TxDOT, Contractor & CEI

Eddie Reyes, P.E.

San Antonio, TxDOT

Matt Brazil, P.E.

Lufkin District, TxDOT

Gustavo Anguiano

Texas Sterling Construction

3:00 – 3:30 p.m.

BREAK

Supporting the Construction Process

3:30 – 4:00 p.m.

Construction Inspector Development Program

Stan Swiatek, P.E.

Waco District, TxDOT

4:00 – 4:30 p.m.

Consistency in Contract Default Process

Joe Graff, P.E.

Construction Division, TxDOT

4:30 – 5:00 p.m.

Managing Construction Schedules

Kelly Selman, P.E.

Dallas District, TxDOT

DESIGN

Program and Session Co-Chairs:

William Brudnick, P.E.
Houston District, TxDOT

Marcus Brewer, P.E., PMP, TTI

Tuesday, October 10

Room: Rudder Auditorium

Moderator:

Max Proctor, Jr., P.E., CFM
Design Division, TxDOT

1:30 – 2:00 p.m.

TxDOT Roadway Design Manual (Background & the Future)
Kenneth Mora, P.E.
Design Division, TxDOT

2:00 – 2:30 p.m.

What's in the TxDOT Roadway Design Manual and How Do I Use It?
Travis Hajek, P.E.
Design Division, TxDOT

Chris Graf, P.E.
Brownwood District, TxDOT

Curtis Hanan, P.E.
Fort Worth District, TxDOT

Michelle E. Milliard, P.E.
Houston District, TxDOT

2:30 – 3:00 p.m.

Super 2: Recent Research and Implementation in Energy Corridors
Kay Fitzpatrick, Ph.D., P.E., PMP, TTI

Gabriel Ramirez, P.E.
Odessa District, TxDOT

3:00 – 3:30 p.m.

BREAK

Moderator:

Patrick Gant, P.E.
Houston District, TxDOT

3:30 – 4:00 p.m.

How Might Connected Vehicles and Autonomous Vehicles Influence Geometric Design?
David McDonald, Ph.D., P.E.
Hanson Professional Services

4:00 – 4:30 p.m. **Designing for Older Drivers**
Marcus Brewer, P.E., PMP, TTI

4:30 – 5:00 p.m. **Designing for Pedestrians**
Pete Krause, L.A.
Design Division, TxDOT

Ana Ramirez Huerta
Houston District, TxDOT

ENVIRONMENT

Program and Session Co-Chairs:

Bryan Ellis
Environmental Affairs Division, TxDOT

Joe Zietsman, Ph.D., P.E., TTI

Tuesday, October 10

Room: Rudder Forum

Moderator:

Carlos Swonke, .
Environmental Affairs Division, TxDOT

- 1:30 – 2:00 p.m. **Environmental Reviews Tested in Court – Update on SH 45/MOPAC Lawsuit**
Doug Booher
Environmental Affairs Division, TxDOT
- 2:00 – 2:30 p.m. **I-35 Capital/Alamo Connections Study – *Planning in Five Dimensions***
Michael Sexton, P.E., AICP
Jacobs Engineering
- 2:30 – 3:00 p.m. **Heritage Archeology and Innovative Outreach in Downtown Houston**
Jason Barrett, Ph.D.
Environmental Affairs Division, TxDOT
- 3:00 – 3:30 p.m. BREAK
- Moderator:
Carlos Swonke
Environmental Affairs Division, TxDOT
- 3:30 – 4:00 p.m. **Wetland and Stream Mitigation Assessment**
Kate Zielke
North Central Texas Council of Governments (NCTCOG)
- 4:00 – 4:30 p.m. **Environmental Considerations When Acquiring ROW Early**
Patrick Lee
Environmental Affairs Division, TxDOT
- 4:30 – 5:00 p.m. **NEPA Assignment Update**
Carlos Swonke

MAINTENANCE and PAVEMENT MANAGEMENT

Program and Session Co-Chairs:

Michael C. Anderson, P.E.
Maintenance Division, TxDOT

Tom Freeman, TTI

Tuesday, October 10

Room: Koldus 110/111

Moderator:

Blair Johnson, P.E.
Amarillo District, TxDOT

1:30 – 1:45 p.m.

Changes to PMIS Score Utility Deducts
Elias Rmeili, P.E.
Brownwood District, TxDOT

1:45 – 2:00 p.m.

Pavement Analyst (PA) as a Tool Used in the 4-Year Pavement Planning Process
Tom Johnston, P.E.
San Angelo District, TxDOT

2:00 – 2:30 p.m.

4-Year Pavement Planning Process
Pedro (Pete) Alvarez, P.E.
Pharr District, TxDOT

Glenn Allbritton, P.E.
Wichita Falls District, TxDOT

Tomas Trevino, P.E.
Corpus Christi District, TxDOT

2:30 – 3:00 p.m.

Energy Sector: Oil/Gas & Wind Farms
Roberto Trevino Flores, P.E.
Corpus Christi District, TxDOT

Ciro Baeza, P.E.
Odessa District, TxDOT

Rex Costley, P.E.
Pharr District, TxDOT

3:00 – 3:30 p.m.

BREAK

Moderator:
Phillip Hempel, P.E.
Maintenance Division, TxDOT

3:30 – 3:55 p.m.

Maintenance Workforce – Development/Training & Update on FTE Workgroup

Kelly Selman, P.E.
Dallas District, TxDOT

Mark Jones, P.E.
San Angelo District, TxDOT

3:55 – 4:40 p.m.

Pilot New Peer Review Process (Panel Discussion)

Lance Simmons, P.E.
Bryan District, TxDOT

Chad Windham, P.E.
Odessa District, TxDOT

Refugio (Fu) Benavidez
Childress District, TxDOT

4:40 – 5:00 p.m.

Performance Based Maintenance Contracting – Update & Current Experience

Andrew Holick, P.E.
Bryan District, TxDOT

Tony Moran, P.E., TxDOT

MATERIALS I

Program and Session Co-Chairs:

Richard S. Williammee, Jr., P.E.
Fort Worth District, TxDOT

David Newcomb, Ph.D., P.E., TTI

Edith Arambula, Ph.D., P.E., TTI

Tuesday, October 10

Room: MSC 2300 A&B

Moderator:

Sarah Horner, P.E.
Fort Worth District, TxDOT

- 1:30 – 2:00 p.m. **Use of Rejuvenators with Recycled Materials**
Edith Arambula, Ph.D., P.E., TTI
- 2:00 – 2:30 p.m. **Tack, Bond and Underseal Specs**
Chuck Fuller
Texas Asphalt Pavement Association
- Gisel Carrasco, P.E.**
Austin District, TxDOT
- 2:30 – 3:00 p.m. **Balanced Mix Design Update**
Travis Patton, P.E.
Construction Division
- Ramon Rodriguez**
Laredo District
- 3:00 – 3:30 p.m. BREAK
- 3:30 – 4:00 p.m. **Ground Penetrating Radar for Density Control**
Stephen Kasberg, P.E.
Waco District, TxDOT
- 4:00 – 4:30 p.m. **F/LWD Deflection Acceptance**
Soheil Nazarian, Ph.D., P.E.
University of Texas at El Paso
- 4:30 – 5:00 p.m. **Relationship between Materials Selection, Mix Design, Pavement Design and Performance**
Andrew Wimsatt, Ph.D., P.E.
Retired TxDOT/Retired TTI

TRAFFIC OPERATIONS I

Program and Session Co-Chairs:

Rebecca Wells, P.E.
Atlanta District, TxDOT

Scott Cooner, P.E., TTI

Ed Seymour, Ph.D., P.E., TTI

Tuesday, October 10

Room: MSC 2300 D&E

Moderator:

Ugonna Ughanze, P.E.
Houston District, TxDOT

- 1:30 – 2:00 p.m. **X-Ramp vs. Diamonds: Safety and Operational Issues for Conversion**
Karen Dixon, Ph.D., P.E., TTI
- 2:00 – 2:30 p.m. **Dealing with Traffic Impacts and Issues at Charter Schools**
Kelly Parma, P.E.
Lee Engineering
- 2:30 – 3:00 p.m. **Proactive Signal Timing and Congestion Mitigation on Arterial Roads**
Maurice Johnson, P.E.
Houston District, TxDOT
- Steve Chiu, EIT**
Houston District, TxDOT
- 3:00 – 3:30 p.m. BREAK
- Moderator:
Ugonna Ughanze, P.E.
Houston District, TxDOT
- 3:30 – 4:00 p.m. **New Wiring Recommendations Based on ArcFlash Concerns and Studies**
Michael Olivio, P.E.
Houston District, TxDOT
- Aaron Ramirez, EIT**
Traffic Operations Division, TxDOT
- 4:00 – 4:30 p.m. **How to Not Drop the Ball: Task Management Tool & How to Better Manage
Your RMC's: RMC Tracker Tool**
Rafael Guzman, P.E.
Laredo District, TxDOT

4:30 – 5:00 p.m.

Traffic Engineering Measures that Solicit Positive Public Comment

James Keener

Houston District, TxDOT

Barbara Russell, P.E.

Houston District, TxDOT

CONSTRUCTION II

Program and Session Co-Chairs:

Gina Gallegos, P.E., San Antonio District, TxDOT

Stephen Sebesta, TTI

Jon Epps, Ph.D., P.E., TTI

Wednesday, October 11

Room: MSC 2300 C

Moderator:
Stephen Sebesta, TTI

We Build Texas

8:30 – 9:30 a.m.

Program Development and Expected Results
Randy Hopmann, P.E.
Administration, TxDOT

Contractor's Role
Brad Everett
J.D. Abrams

District's Role
Mark Jones, P.E.
San Angelo District, TxDOT

9:30 – 10:00 am

I-45 Innovative Technology in Construction

Delmy Reyes, P.E.
Bryan District, TxDOT

Fernando Pizarro Quintanar
Webber, LLC

10:00 – 10:30 am

BREAK

Past, Present and Future

10:30 – 11:00 am

History of Construction in Texas
Tom Johnson
AGC of Texas

11:00 – 11:40 am

Accelerated Construction Program

Randy Hopmann, P.E.
Administration, TxDOT

Phillippe Falkner, P.E.
Ed Bell Construction

11:40 a.m. – 12:00 p.m. **Future Construction Resource Needs**
Mario Jorge, P.E.
San Antonio District

MATERIALS II

Program and Session Co-Chairs:

Richard S. Williammee, Jr., P.E.
Fort Worth District, TxDOT

Edith Arambula, Ph.D, P.E., TTI

David Newcomb, Ph.D., P.E., TTI

Wednesday, October 11

Room: MSC 2300 A&B

Moderator:

Ramon Rodriguez
Laredo District, TxDOT

8:30 – 9:15 a.m.

Basics of Soils
Dallas Little, Ph.D., P.E.
TTI

9:15 – 10:00 a.m.

Basics of Aggregates
Michael Dawidczik, P.G.
Construction Division, TxDOT

Harry Bush, P.E.
Vulcan Materials Co.

10:00 – 10:30 a.m.

BREAK

10:30 – 11:15 a.m

Basics of Hot Mix
Buzz Powell, Ph.D.
National Center for Asphalt Technology (NCAT)

11:15. – 12:00 p.m.

Basics of Concrete
Andy Naranjo, P.E.
Construction Division, TxDOT

PLANNING

Program and Session Co-Chairs:

Peter Smith, P.E.,
Transportation Planning and Programming Division, TxDOT
Ed Hard, TTI

Katie Turnbull, Ph.D., TTI

Wednesday, October 11

Room: Rudder Theater

Part 1: Planning Technology and Innovation

Moderator:
Johanna Zmud, TTI

- 8:30 – 8:50 a.m. **Integration of AV/CV: Scenarios and Influences on the Status Quo**
Katie Turnbull, Ph.D., TTI
- 8:50 – 9:10 a.m. **Planning and Mobility Impacts of AV/CV in an Urban Setting**
Tom Bamonte
North Central Texas Council of Governments (NCTCOG)
- 9:10 – 9:50 a.m. **The Smart State Initiative and Benefits of Technological Advances on the Texas Transportation Network**
Kristie Chin
University of Texas at Austin Center for Transportation Research (CTR)
representing the Texas Technology Task Force (T3F) and Texas Innovation Alliance (TIA)
- 10:00 – 10:30 a.m. BREAK

Part 2: New Planning and Project Resources You Can Use

Moderator:
Peggy Thurin
Transportation Planning and Programming Division, TxDOT

- 10:30 – 10:50 a.m. **The New Decisions Lens Software for Ranking Projects**
Michelle Conkle
Transportation Planning and Programming Division, TxDOT
- 10:50 – 11:10 a.m. **TxDOT Project Tracker System/Open Data**
Michael Chamberlain
Transportation Planning and Programming Division, TxDOT

11:10 – 11:30 a.m.

TxDOT's Travel Demand Model Dashboard: A New On-Line Resource

Chris Didear

Transportation Planning and Programming Division, TxDOT

11:30 a.m. – 12:00 p.m.

Valuable Uses of Cell, GPS, and Bluetooth Data: Results from the Dallas-Fort Worth Region

Byron Chigoy, TTI

PROJECT MANAGEMENT

Program and Session Co-Chairs:

Duane Milligan, P.E.
Dallas District, TxDOT

Curtis Beaty, P.E., TTI

John Habermann, P.E., TTI

Wednesday, October 11

Room: Rudder Auditorium

Moderator:

Duane Milligan, P.E.
Dallas District, TxDOT

8:30 – 9:10 a.m.

The Dallas Horseshoe Project – We Build Texas in Practice
Ceason Clemens, P.E.
Dallas District, TxDOT

Bob Stevens
Pegasus Link Constructors, LLC

9:10 – 9:35 a.m.

Construction Engineering & Inspection: Consultant Perspective
Tracey Friggle Logan, P.E.
HNTB

9:35 – 10:00 a.m.

Construction Engineering & Inspection: TxDOT Perspective
Frank Leong, P.E.
Houston District, TxDOT

10:00 – 10:30 a.m.

BREAK

Moderator:

Rodney Svec, P.E.
Yoakum District, TxDOT

10:30 – 10:55 a.m.

Modernize Portfolio and Project Management Initiative
Erika Kemp, PMP, CTCM
Transportation Planning and Programming Division, TxDOT

10:55 – 11:20 a.m.

Increasing the Value of Project Management at TxDOT
Melba Schaus, P.E.
Transportation Planning and Programming Division, TxDOT

11:20 a.m. – 12:00 p.m.

Harbor Bridge Project
Valente Olivarez Jr., P.E.
Corpus Christi District, TxDOT

Joseph Briones, P.E.
Corpus Christi District, TxDOT

RIGHT OF WAY

Program and Session Co-Chairs:

Kyle Madsen, J.D. Right of Way Division, TxDOT

John Overman, TTI

Cesar Quiroga, Ph.D., P.E., TTI

Wednesday, October 11

Room: Rudder Forum

Moderator:

Kyle Madsen, J.D.

Right of Way Division, TxDOT

8:30 - 9:00 a.m.

Best Practices for Advanced Acquisition- HB 2646 and Beyond

Randy Ward, J.D.,

Right of Way Division, TxDOT

Darby Venza, J.D.

Right of Way Division, TxDOT

9:00 – 9:30 a.m.

Best Practices for Getting Your Right of Way Project Started Right a Way

Crystal Damron

Right of Way Division, TxDOT

Lizeth Sandoval

San Antonio District, TxDOT

9:30 – 10:00 a.m.

Best Practices to Getting Your Parcels Cleared for Construction

David Harrah, SR/WA

Austin District , TxDOT

Guy Sledge

Right of Way Division, TxDOT

10:00 - 10:30 a.m.

BREAK

10:30 – 10:50 a.m.

Best Practices for Testifying at an Eminent Domain Case – Advice from the Office of the Attorney General on what to do and what not to do

Clint Harbor, J.D.

Assistant Attorney General

10:50 – 11:15 a.m.

Best Practices for Managing Your Utility Portfolio

Charon Williams, E.I.T.

Right of Way Division, TxDOT

Tim Kirkpatrick

Right of Way Division, TxDOT

11:15 – 11:35 a.m. **Best Practices for Utility Industry Partnering**
Lora Gunter, J.D.
Fort Worth District, TxDOT

Roger Lindsey
Oncor Electric Delivery Company

11:35 a.m. – 12:00p.m. **Case Study of a Successful Project – Tying it all together**
Anna Pulido, P.E.
San Antonio District, TxDOT

Albrina Coleman
San Antonio District, TxDOT

David Pulido, P.E.
San Antonio District, TxDOT

STRUCTURES AND HYDRAULICS

Program and Session Co-Chairs:

Bonnie Longley, P.E.
San Antonio District, TxDOT

Mary Beth Hueste, Ph.D., P.E., TTI

Wednesday, October 11

Room: MSC 2400

Moderator:
LaDonna Waters, EIT
Beaumont District, TxDOT

8:30 – 9:00 a.m. **Hydraulics – 2017 Updates**
Abderrahmane Maamar-Tayeb, P.E.
Design Division, TxDOT

Lucinda Soto, P.E.
Design Division, TxDOT

9:00 – 9:20 a.m. **Modeling Future Flood Peak Flows in the San Antonio River Basin**
Huilin Gao, Ph.D.
Texas A&M University

9:20 – 9:40 a.m. **InspectTech – New Bridge Inspection Software**
Mark Burwell
Fort Worth District, TxDOT

9:40 – 10:00 a.m. **Successful Implementation of Steel Coating and other Bridge Rehab Projects**
Aaron Garza, P.E.
Bridge Division, TxDOT

10:00 – 10:30 a.m. BREAK

Moderator:
Farren Basse, P.E.
San Antonio District, TxDOT

10:30 – 10:50 a.m. **Implementing New Materials – Corrosion Resistant Reinforcing**
Trenton Ellis, P.E.
Bridge Division, TxDOT

10:50 – 11:10 a.m. **Pre-stressed Concrete Bent Caps**
Chris Miller, P.E.
Bridge Division, TxDOT

11:10 a.m. – 11:30 a.m. **Large Diameter Drilled Shafts**
Marie Fisk, P.E.
Bridge Division, TxDOT

11:30 a.m. – 12:00 p.m. **Accelerated Bridge Replacement at West Dallas Street – Houston District**
Paul Eley
Houston District, TxDOT

Graham Bettis, P.E.
Bridge Division, TxDOT

TRAFFIC OPERATIONS II
Program and Session Co-Chairs:

Rebecca Wells, P.E.
Atlanta District, TxDOT

Scott Cooner, P.E., TTI

Ed Seymour, Ph.D., P.E., TTI

Wednesday, October 11

Rooms: MSC 2300 D&E

Moderator:

Rebecca Wells, P.E.
Atlanta District TxDOT

8:30 – 9:00 a.m.

TxDOT Connected Vehicle Wrong-Way Driving Research
Melisa Finley, P.E., TTI
Scott Cooner, P.E., TTI

9:00 – 9:30 a.m.

Travel Time Reliability and Performance Metrics
David Fink, P.E.
Houston District, TxDOT

9:30 – 10:00 a.m.

Benefits of the Different Types of Smart Work Zone Systems
Gerald Ullman, Ph.D., P.E., TTI

10:00 – 10:30 a.m.

BREAK

Moderator:

Rebecca Wells, P.E.
Atlanta District TxDOT

10:30 – 11:00 a.m.

Innovative Tools and Techniques in Identifying Highway Safety Improvement Projects
Ioannis Tsapakis, Ph.D., TTI
Bahar Dadashova, TTI

11:00 – 11:30 a.m.

Rural ITS Solutions
James E. Moore II
Atlanta District, TxDOT

11:30 a.m. – 12:00 p.m.

Doing a Big Project in a Small City - Preparing for the Future George Bush Drive – Wellborn Road Interchange
Tim Lomax, Ph.D, P.E., TTI

Chad Bohne, P.E.
Bryan District, TxDOT