IOWA ENGINEERING SOCIETY – CENTRAL IOWA CHAPTER

CONTINUING EDUCATION SEMINAR

WHEN:

Thursday, December 14

8:00 am to 12:15 pm

WHERE:

Snyder & Associates, Inc.

2727 SW Snyder Blvd

Ankeny, IA 50023

Call Ryan Morgan at:

(641) 485-0199 for further directions.

Attendees of the seminar will receive four (4) Professional Development Hours (PDH).



Please join us for the 2017 Continuing Education Seminar hosted by the Central Iowa Chapter of the Iowa Engineering Society.

This year's topics include:

• How Much Damage Can A Tornado Do? (Steven Brase, P.E., Shive-Hattery, Inc.)

 Statutory & Case Law Update/Claims Against Design Professionals (Stephen Tyler, Attorney At Law, Whitfield & Eddy, P.L.C.)

 Challenges of ADA Sidewalk Ramp Construction (Erin Tyrrell, E.I., HR Green) Urban Ponds: A Love-Hate Relationship (Chad Mason, P.E., HR Green)

• Expanded Polystyrene Embankment Fills (Matthew D. Cushman, P.E., Terracon Consultants, Inc.)



To register, please contact Ryan Morgan at (515) 244-3184 or <u>rjmorgan@terracon.com</u>. Make checks payable to IES/CIC. Payment can be made at the door or mailed to the address shown below with this form. If you will be paying at the door, please call to reserve a place. Cost for the seminar is \$90 per person.

NAME: _

COMPANY: _____

Please submit payment and this form to: Central Iowa Chapter Iowa Engineering Society c/o Ryan J Morgan, P.E. Terracon Consultants, Inc. 600 SW 7th Street, Suite M Des Moines, IA 50309

How Much Damage Can A Tornado Do? A Review of the 2011 Joplin, MO Tornado

About six and a half years ago, Joplin, Missouri was hit straight on by an EF5 tornado. Within a brief half an hour, the tornado traversed through the middle of the city and became the single deadliest tornado in United States history. This presentation will review:

- The path of the tornado and its wind strengths
- The destruction of the tornado to people, buildings, and other infrastructure
- A more in depth look at a few structures and the specific damage to them
- Structural lessons learned and how our codes may be affected
- The immediate recovery effort and how Joplin, MO is doing today

Speaker Summary:

Steven Brase, P.E.; Structural Engineer, Shive-Hattery, Inc.

Steve is a structural engineer with Shive-Hattery, Inc. in West Des Moines, Iowa and has about 43 years of structural engineering design and analysis experience, primarily on buildings. A few buildings around the metro area with his signature on the structural certification block are Methodist West Hospital, the Des Moines Register Printing Facility, and large portions of the Prairie Meadows Racetrack and Casino facility. Steve is an Iowa State University graduate in civil engineering with emphasis in structural engineering. He is the current President of the Central Iowa Chapter of IES. His personal connection with the Joplin, MO tornado is that he was the structural engineer of record on several additions at the St. John's Regional Medical Center, including the ten-story tower building, which took nearly a direct hit from the tornado.

Statutory Update, Case Law Update, Claims Against Design Professionals

- Statutory update (i.e. bidder prequalification, PLA, Statute of Repose, mechanic's lien)
- Case law update (i.e. negligent misrepresentation, veil piercing, strict liability for violation of municipal code).
- Claims against design professionals (contract v. tort, Iowa Code Chapter 668, economic loss doctrine, indemnity, third-party claims)

Speaker Summary:

Stephen W. Tyler, Attorney at Law; Whitfield & Eddy, P.L.C

Stephen W. Tyler is a member of Whitfield & Eddy, P.L.C. Steve's legal practice focuses on the construction industry, representing owners, contractors, material suppliers, and design professionals. Steve is a graduate of the University of Iowa and Drake University Law School. Prior to attending law school, Steve worked for ten years as a carpenter for commercial (union) and residential contractors. Steve is a member of the Iowa State Bar Association Construction Section, the American Bar Association Construction Forum, Master Builders of Iowa, Association of General Contractor (2015 Leadership Academy), and the Iowa Chapter of Design Build Institute of America.

Out of Compliance?! The Challenges of ADA Sidewalk Ramp Construction

This presentation will present a case study of the NW/SW State Street & W. First Street Intersection reconstruction in Ankeny, Iowa. This project reconstructed one of the busiest intersections in this growing city of 60,000 people. Construction went very well and finished early, thanks to excellent work by Hawkeye Paving. However, after construction, City inspection revealed several of the pedestrian ramps were not in compliance with ADA / PROWAG criteria. How did this happen? The presentation will discuss the ways ramps can go wrong despite the best intentions, and prepare engineers & contractors to prevent those issues of noncompliance.

Speaker Summary:

Erin Tyrrell, E.I.; Staff Engineer, HR Green

Erin Tyrrell is a Staff Engineer for HR Green's Transportation Business Line at the Des Moines office. Erin has approximately 3 years of experience in roadway design, project management, and construction observation. Erin's experience with roadway design ranges from major interstates to local roads and intersections. With her array of project experience, Erin also has a strong background in storm sewer design, construction staging, and utility relocation coordination. She maintains strong communication with the client during design and construction. Erin is proficient with Microstation and Geopak and familiar with SUDAS and Iowa DOT design manuals and specifications.

Urban Ponds: A Love-Hate Relationship

Stormwater detention basins often do double-duty as recreational amenities in suburban and commercial developments. Although they provide recreational opportunities, they also can be serious maintenance headaches. This presentation will describe a City-wide study that HR Green and Applied Ecological Services conducted for the City of Ankeny. The study evaluated 38 publicly owned basins throughout the City, and developed a classification system that the City can use to prioritize maintenance activities and develop management plans.

Speaker Summary:

Chad Mason, P.E.; Site Leader and Project Manager, HR Green

Chad Mason is the Site Leader for HR Green's Des Moines area office, and Project Manager in the company's Water Resources practice. He has worked on a wide variety of projects touching the fields of traffic and transportation, water, wastewater, and stormwater management. In the Transportation arena, Chad's project management experience includes the design of major bridges & culverts, interchanges, urban arterial street reconstructions, roundabouts and downtown streetscapes. His water-related experience includes pumping and conveyance systems, water and wastewater treatment, stormwater remediation and flood control. Outside the office, Chad has authored three critically acclaimed books and hundreds of magazine and journal articles. He has also made presentations to diverse audiences at council meetings, public hearings, seminars and conferences on a wide range of subjects, both within and outside the field of engineering.

Expanded Polystyrene Embankment Fills

The presentation will discuss the design process behind expanded polystyrene (EPS) embankment fills, and will showcase the first major application of EPS fill use on Iowa DOT transportation projects.

Speaker Summary:

Matthew D. Cushman, P.E; Senior Engineer, Terracon Consultants, Inc.

Matthew Cushman is a Senior Engineer in Terracon's Des Moines, Iowa office. He received a B.S. and M.S. degree in Civil Engineering from Iowa State University, with a specialization in geotechnical engineering. In his eleven years at Terracon, he has worked on a wide range of projects, with an emphasis on roadways and bridges for locate and State projects.