

**ASCE – INDOT
STRUCTURAL/GEOTECHNICAL SUBCOMMITTEE**

MEETING NO. 39 MINUTES

July 26, 2007

The meeting was called to order at 1:30 p.m. by Steve Weintraut. Those in attendance were:

Mir Zaheer	INDOT, Planning and Production Division
Steve Morris	INDOT, Planning and Production Division
Somanath Hiremath	INDOT, Planning and Production Division
Greg Pankow	INDOT, Greenfield District
Derek Merida	Milestone
Tom Struewing	ATC Associates, Inc.
Scott Ludlow	Earth Exploration, Inc.
Steve Weintraut	Butler, Fairman and Seufert, Inc.
Jon Sera	Butler, Fairman and Seufert, Inc.

In addition to the attendees, these minutes will be sent to the following:

Nayyar Siddiki	INDOT, Planning and Production Division
Athar Khan	INDOT, Planning and Production Division
John Wright	INDOT, Design Division
Anne Rearick	INDOT, Design Division
Tony Uremovich	INDOT, Structural Services
Jim Reilman	INDOT, Division of Construction Management
Keith Hoernschmeyer	Federal Highway Administration
Mark Thompson	Milestone
Fred Sullivan	Gohmann Asphalt
Charlie Kahl	ICA
Dae Hyeon Kim	INDOT, Planning and Production Division
Paul Berebitsky	Indiana Constructors, Inc.
Tom Harris	INDOT, Division of Construction Management
Mark Miller	INDOT, Division of Construction Management
Dennis Kuchler	INDOT, Division of Construction Management
Elizabeth Dwyre	Parsons Brinckerhoff Quade & Douglas, Inc.
Bill Dubois	Patriot Engineering
Salim Ilmudeen	Patriot Engineering
Mike Wiggers	Earth Exploration, Inc.

A meeting agenda had previously been distributed and the following items were discussed:

1. Minutes from prior meetings of this committee have been posted on INDOT's website by Tony Uremovich.
2. It was announced that this will be Steve Morris's last meeting before his retirement from INDOT. The group was grateful for all of his insightful input over the years.
3. Somanath Hiremath gave an update that the specifications for Geotextile have been changed. He would check after the meeting to determine if all of the changes are included in the 2008 specifications book. Somanath's review following the meeting shows that: (1) revised specifications for geotextile under riprap (section 918.02) and geotextile for underdrains (section 918.03) are in the 2008 Standards Specification

Book, and (2) revised specifications for geogrid type I and type II (section 918.05) are not included in the 2008 book. However, it is available as a recurring special provision.

4. Scott Ludlow reported that no new progress had been made on the “state of the practice” memo on pile driving and accounting for negative skin friction. Scott is working on the document and should have a draft ready by this fall, possibly for our next meeting.
5. Keith Hoernschmeyer was not able to attend this meeting to discuss current practices of calculating scour depths based on soils information. Steve Weintraut did read aloud to the group an E-mail from Keith regarding this topic. In summary, a few states have developed their own methods of predicting scour depths. These methods have not been backed by the FHWA for recommendations nationwide. A message from Merrill Dougherty was also included in the E-mail message stating that INDOT would have to wait on other states to finish testing to determine new formulas. This is due to current budget constraints and the related expenses involved with scour testing. Mir Zaheer reported that he was on a committee in the 1990s to review scour calculations. Mir will look for results which were published from that committee. Derek Merida noted that on some projects it can be difficult and time consuming to drive pile below the Q500 scour depth after bearing requirements have already been met. Scott Ludlow also noted that occasionally pile recommendations have to be altered to account for predrilling, just to reach below the Q500 scour depths predicted.
6. INDOT is working on having Geotechnical Reports available on-line. There is a backlog at the IT department and it could take some time for this to happen. Steve Weintraut recommended that an interim solution be developed to provide digital versions of the reports to contractors. Mir Zaheer will discuss with Athar Khan this topic and try to come up with an alternative solution.
7. A committee is being formed to review current practices with pipe jacking. Geotechnical consultants (Liza Dwyre and Tom Struewing), are working on finding some contacts to be part of the committee. Mir Zaheer has made contact with Viola (Water) and they have committed one member to the group. Greg Pankow mentioned that a professor at Purdue had done some research on pipe jacking and might be a potential member.
8. Steve Weintraut read an E-mail from Mike Winning and Professor Frosh of Purdue. The E-mail was concerned with RC-Pier footing design and differences between LFD and LRFD truck loads. Steve Weintraut recommended that reinforcing steel not be required in the top of footings if tension is not an issue. The RC-Pier design program for foundation design includes reinforcing steel in the top of the footing to compensate for the Z factor in current code requirements. The group will review the code requirements and see if they apply to this situation. The group then discussed differences in the truck loads from LFD to LRFD design. Current INDOT policy is to design bridges for an LRFD HL-93 truck load and foundations for an LFD HS-25 truck load. Designers have to analyze bridges twice to accommodate this policy. There appears to be a greater load generated from the HS-25 truck load. Scott Ludlow gave a brief seminar concerning LRFD design philosophy. Mir Zaheer reported that Materials and Tests is working hard to implement LRFD for foundation design. Mir will check in with Athar Khan and Anne Rearick for a solution to the added design work.

9. Scott Ludlow gave a brief summary of pile driving on a Toll Road project as it relates to PDA versus the Gates formula. Scott believes that PDA has a lot of value. Although Derek Merida has not actually tracked formulas versus PDA, he believes that he is driving piles deeper with PDA.

The next meeting for the INDOT Geotechnical Subcommittee is scheduled for 1:30 p.m. Thursday, October 25th, 2007, at INDOT's Division of Production Management.

Individuals are invited to comment on items presented in these minutes and/or submit additional topics for discussion at the next meeting. Please fax comments to Steve Weintraut at 317-713-4616.

This meeting was adjourned at 3:30 p.m.

Prepared by,

BUTLER, FAIRMAN and SEUFERT, INC.

c: Attendees