

Minutes of the AFS30 Committee Meeting
Foundations of Bridges and Other Structures
Date: Monday, January 22, 2007
Time: 7:30 PM – 10:00 PM
Location: Marriott Hotel – Washington Room

Chairman: Mark Morvant

Secretary: Hani Titi

Attachments:

Agenda

Present: list of members

Guests: list of guests

Call to order: 7:30 p.m.

1. Welcome & approval of the 2006 meeting minutes:

- Meeting attendees (members and guests) introduced themselves
- The committee chair agreed to serve another term
- Agenda, rooster, minutes, and other materials were distributed
- The minutes of the 2006 meeting were unanimously approved (motion by Robert Kimmerling, seconded Brian Liebich)

2. General Items

- TRB Announcements:
 1. Deborah Goodings (AFS00 Section Chair): commended the committee for activities and stated TRB announcements. The main points are:
 - a. 2008 spotlight theme: Partnerships in progress in Transportation
 - b. Audit: eliminate and combine committees
 - c. Research need statements will be directly managed by committees via TRB website
 - d. Award nominations encouraged
 - e. There were two sessions on Sunday sponsored by Section AFS00: Load and Resistance Factor Design Method for Bridge Substructures (AFS30) and Reliability in Mechanistic-Empirical Pavement Design Guide (AFS50)
- TRB strategic plan actions/comments: the chair asked the committee members to mail him any comments
- Jerry DiMaggio was acknowledged for representing the committee on Session 301: Dialogue with Leaders in Design and Construction of Transportation Facilities. His presentation titled: Advancements and Disappointments in Geotechnical Engineering and Geoconstruction Research and Practice: Thirty-Year Reflection
- TSE Report Evaluation Results: The chair presented (handout) the itemized results of the evaluation. In general, results are excellent.

- Review of Future Goals: The chair distributed handout of the committee's future goals. These goals were identified based on survey that was conducted in 2006. Members and guests discussed the future goals.

3. Technology Transfer

- Summary of Committee sponsored sessions – 2007:
 1. Workshop (Session 128) (AFS30): Load and Resistance Factor Design (LRFD) Method for Bridge Substructures. Well attended (about 80 attendees)
 2. Session 209 (co-sponsored with AFS50): Residual Shear Strength of Liquefied Soil. Well attended (about 20 attendees)
 3. Session 272 (AFS30): Performance and Analysis of Foundation Elements and Walls. Well attended (about 60 attendees)
 4. Session 301 (sponsored by sections AF000, AFP000 & ASF000): Dialogue with Leaders in Design and Construction of Transportation Facilities
 5. Session 419 (AFS30): Soil Set-Up Effects on Bearing Capacity of Driven Piles. Well attended (about 40 attendees)
 6. Session 504 (Section AFS00): Standardization - Does it Hinder Innovation?
- There were a total of 14 papers reviewed. Seven papers were presented and four papers were recommended for publication.

4. LRFD Update

- Presentations: There were two presentations on LRFD as follows:
 1. Critique of the AASHTO Driven Pile Code by George Goble
 2. Foundation Specification Future Directions by Tony Allen
- Committee Role on LRFD: Since LRFD is identified by the committee as high priority topic, the following were discussed as venues to address LRFD :
 1. Help educate engineers on LRFD
 2. Try to work/design with LRFD
 3. Organize LRFD sessions on regional meetings/conferences
 4. Propose a circular with focus on design examples
 5. It was mentioned that FHWA is developing detailed examples to help state DOTs with LRFD. This will be available in April 2007.
 6. FHWA is helping state DOTs to transform their codes to LRFD

5. 2008 Annual Meeting

- Session / Workshops:
 1. The results of the 2007 survey for future sessions were presented
 2. A list of specific sessions and workshops was provided in Future Goals handout
 3. LRFD Workshop on Implementation by DOT's was suggested. It was also discussed whether to organize the workshop during TRB meeting or during some other time. Robert Kimmerling will chair development

- of a Sunday workshop for the 2008 TRB annual meeting.
4. Robert Kimmerling will chair a task group (Nasser Abu-Hejleh, Chris Dumas, and Frank Raushe) to address LRFD issues (e.g., examples, how to provide information)
 5. It was discussed (Jim Withiam) to the use of NCHRP project database of geotechnical engineers/personnel who may be interested in LRFD to distribute relevant materials
 6. In 2009, ASCE conference theme is Foundation Engineering. It was discussed to partner with them on this conference.
 7. Sessions for TRB 2008:
 - a. Jim Withiam: Co-sponsor a session with AFP10(3) Abandoned Underground Mines Subcommittee on Impact of Abandoned Mines on Major Transportation Projects
 - b. Sessions that address future goals of the committee
 - c. Session on foundations for urban sites. Ernst Niederleithinger presented a book on this subject that was passed to members/guests to browse it. Ernst Niederleithinger from Germany is the Head of Working Group, Non-Destructive Environmental Measurement Methods, European project of foundation re-use.

6. Research Topics and Proposals

- 2006 Problem Statements posted: The following problem statements will be reviewed by Tony and Jim for feedback comments. The chairman will update these statements and submit them for 2007. The update on the website will be done by the committee not by TRB as it was done earlier.
 1. Performance-Based Design of Foundation Elements and Earth Structures for Extreme Event Loadings.
 - a. Authored by: Ken Fishman & Ed Kavazanjian
 - b. The plan was to submit it by New York DOT (Bob Burnett)
 - c. This problem statement was ranked as top one by section AFS00
 - d. AASHTO T-15 committee did not endorse it
 - e. It was not submitted by a state DOT for 2006
 2. Performance of Laterally Loaded Drilled Shafts in Rock
 - a. Authored by: Dan Brown & Jan Six
 - b. It will be submitted by Oregon DOT (Jan Six) for 2007
 3. Setup and Relaxation Effects on Load Carrying Capacity of Driven Piles
 - a. Authored by: Hani Titi
 - b. It will be submitted by Louisiana DOTD (Mark Morvant) for 2007
- 2005 Problem Statement submitted for funding:
 1. The following problem statement was submitted for 2006 by Louisiana DOTD (Mark Morvant): Innovative Technology and Procedures for Capacity Testing of Open End Cylinder Piles
- T-15 Research Interest:

1. Jerry DiMaggio (AASHTO committee T-15) presented the following:
 - a. To establish relationship with AFS30 (name a liaison)
 - b. Research implementation is best done by working through AASHTO T-15
- Research needs statements priority: The issue that was discussed is the need for topic adjustments to align with AASHTO T-15
- Synthesis topics
 1. Update on current synthesis project:
 - a. Cone Penetration Test: State of Practice. Authored by: Paul Mayne. A draft copy was submitted. It is expected that the final report will be published on March 2007
 2. New synthesis topics:
 - a. Deadline for submission is Feb 14, 2007
 - b. New topic: Determining unknown bridge foundations
 - c. 2 topics came from the committee survey

7. Other Committee Business

- Jeff Keaton distributed a Questionnaire for NCHRP project 24-29. He asked the meeting attendees to look into the Questionnaire and respond to it. He also requested that attendees distributed it and inform other engineers about it.
- Frank Raushe asked for the committee help in reviewing papers for ASCE 2009 Foundation conference
- Silas Nichols announced upcoming DFI events. He also distributed copies of the DFI magazine and told the committee that DFI established a new technical journal with 2 issues per year as a start.
- Update from Seismic Committee:
 1. Edward Kavazanjian stated that the committee will meet on Tuesday and 2 main issues will be discussed:
 - a. Ground motion for seismic design
 - b. Sites with shallow soil layers over rock
 2. He also mentioned that there will be two presentations on the performance-based seismic design of bridge structures and substructures
- Conference announcements:
 1. ASCE 2009: on Foundation Engineering
- A presentation before the end of the meeting was given by Robert Parsons on "P-Y Curves for Drilled Shafts in Loess"

8. Adjourn

- The meeting adjourned at 9:55 p.m.