

**Minutes of the AFS30 Committee Meeting  
Foundations of Bridges and Other Structures**

Chairman, Mark Morvant

Secretary, Hani Titi

**Date:** Wednesday, January 13, 2010

**Location:** Marriott Hotel, Washington B2

**Present:** list of members

**Guests:** list of guests

**Call to order:** 10:15 A.M.

**1) Welcome and Approval of the 2009 Meeting Minutes**

- a) The chair welcomed every one
- b) Committee members introduced themselves
- c) Agenda, rosters, and other materials were distributed. Attached are the completed committee and visitor rosters.
- d) The chair introduced the new committee chair Brian Liebich to be effective April 2010
- e) The minutes of the 2009 meeting were unanimously approved (motion by Ken Fishman; second by Ed Kavazanjian)

**2) General Items**

**a) TRB Announcements**

- i) The section chair Njoroge Wainaina read the TRB Announcements. TRB 2010 has 382 lectern sessions, 134 poster sessions, and 144 meetings. TRB 2010 has more papers in poster sessions than in podium sessions.
- ii) The section chair presented a certificate to the winners of the soil mechanics section best paper award for 2010, Brent Robinson and his co-authors. The paper is: Energy Efficiency and Rod Length Effect in SPT Hammers (10-0317) by: Michael D. Valiquette, North Carolina Department of Transportation, Brent Robinson, North Carolina State University and Roy H. Borden, North Carolina State University.
- iii) The section chair presented the service award to Mark Morvant for his service as a committee chair from 2004 to 2010.

**b) Review of Scope**

- i) The scope was reviewed and the chair noted that a vote was required by 2/3 majority to have approved before submission of the Triennial Strategic Plan (TSP). A vote will be taken by email in February.
- ii) The chair distributed the draft future goals to be included in the TSP as developed by Brian Liebich, Dan Brown and Jamal Nusairat. Brian presented the list to the members for further discussion. Minor modifications were recommended. Brian agreed to move forward with minor modifications.

**3) Technology Transfer – 2010**

- i) Summary of 20109 Sponsored Sessions/Workshops:
  - 13 papers reviewed
  - 3 papers presented in poster session
  - 2 papers presented in presentation session
  - Included 2 papers from Section review in AFS30 sessions
  - 3 papers recommended for publication (2 in poster, 1 in lectern)
- ii) The following are the committee sponsored sessions:
  - (1) Poster Session 236 AFS30): Foundation Design and Analysis, Room: Marriott, Salon 2, Presiding: Miquel Pando, Monday, 9:30 AM–12:00 PM. The session

included the paper that got the section's best paper award. The session was well attended.

- (2) Panel Discussion Session 536 (ASF30): Service Limit State Design of Deep Foundations for Compatibility with Structural Performance, Room: Marriott, Delaware A, Presiding: Lance Roberts, Tuesday, 3:45–5:30 p.m. Panel discussion/questions of 4 geotechnical/structures members. Estimated attendance: 40-50
- (3) Session 561 (AFS30): Continued Calibration Efforts and Implementation of Load and Resistance Factor Design Specifications for Foundation Design, Room: Marriott, Delaware M, Presiding: Scott Olsen, Tuesday 7:30 PM–9:30PM. Estimated attendance : 30-35

#### **4) Committee Business Updates**

- i) AFS30 Triennial Strategic Plan: TSP is due this year. Comments are encouraged and are due on March 1, 2010 to the section chair Njoroge Wainaina.
- ii) Dialogue with Leaders and Construction of Transportation Facilities nomination. Dan Brown and Jim Collin were nominated. Dan Brown was selected by voting. It was noted that the previous nominee from AFS30, Jerry DiMaggio, was subsequently selected to deliver the address.
- iii) Status of the NCHRP 41-10 Synthesis report on pile driving criteria: Dan Brown updated the committee that the synthesis will be completed by the end of 2010.
- iv) FHWA manual and new NHI course on drilled shafts: Silas Nichols delivered a short presentation. The manual is complete and will be distributed soon.

#### **5) 2011 Annual Meeting**

- a) Paper Sessions (Call for Papers):
  - i) LRFD Practice and Case Studies in Geotechnical Engineering: KJ Kim
    - (1) This session may be combined with a similar session by the seismic committee depending upon paper review.
  - ii) Integrated Field Testing to Maximize Design and Construction Efficiency: Mark Morvant
    - (1) Session proposed would build on TSP goals for instrumented test piles results.
  - iii) If It's Broke, How Do You Fix It: Mitigation of Defects in Drilled Shafts: Frank Raushe
  - iv) Environmental Impact of Pile Foundation and Risk Management: Zhongji Zhang
    - (1) Call for papers to include both physical impacts (vibration, noise, etc) and species impacts (aquatic, wildlife, etc)
  - v) Ken Fishman recommended a session on LRFD for MSE Walls.
    - (1) Silas mentioning that new FHWA recommendations were coming out, so that session would be best to have in a later year, rather than next year -- and Ken concurred to wait.
- b) Lectern (non-paper session)
  - i) No sessions proposed
- c) Workshops
  - i) No workshops proposed

#### **6) Research Topics and Proposals**

- a) Research need statements: A discussion was held to continue efforts to work more closely with AASHTO T-15 to develop Research Needs Statements. Tony Allen gave a brief summary of the topics presented in the Future goals that he felt may be of interest of T-15. Volunteers would be solicited to produce the needs statement for the following topics after feedback from T-15 is received.
  - i) Comparisons of Full Scale Load Testing Methods for Foundations with Controlled Blind Capacity Predictions
  - ii) Examination of Real-World Performance Compared to Predicted Design: Case

## Studies and Conclusions Using Smart Bridges

- iii) Adjusting Resistance Factors to Account for the Effect of Site Variability and Thoroughness of Subsurface Investigation on Geotechnical Design Reliability
- b) Synthesis topic:
  - i) *Geotechnical Issues and Practices in Design Build Projects* - Jim Sheahan and Dan Brown agreed to work on submittal. Chair will solicit T-15 co-sponsorship for topic.
- c) Circular topic:
  - i) *Optimized Use of Instrumentation in Foundations for Testing Assessment, Construction Evaluation and Health Monitoring* was discussed as a future topic for consideration in the next three year committee cycle.
- d) Webinars:
  - i) It was suggested that a webinar on the results of the NCHRP synthesis 41-10 would be appropriate in 2011 after the next annual meeting. Dan Brown will inform the committee when he is ready so that the chair can submit to TRB for scheduling. A presentation will be given at the next annual meeting.
  - ii) A webinar on "State of the Practice of Quality Assurance / Quality Control for Drilled Shafts" was also identified as a potential future webinar.

## 7) Other Committee Business

- a) Update from the Geoseismic Issues of Bridges Subcommittee, AFF50(1) (Ed Kavazanjian):
  - i) The committee met on Monday
  - ii) Webinar on February 17<sup>th</sup>
  - iii) Review/rewriting of Section 11 of AASHTO's specs, specifically for seismic design of walls
  - iv) 2011 session: LRFD Design with Extreme Events: Geoseismic Issues of Bridges Subcommittee (Ed Kavazanjian)
- b) Conference announcements:
  - i) 7th International Bridge Engineering Conference: Improving Reliability and Safety - Restoration, Renewal, and Replacement, December 1-3, 2010, Grand Hyatt, San Antonio, Texas
  - ii) Geo Institute Specialty Conference – ER2010 Earth Retention is a conference on earth retaining structures organized by the Earth Retaining Structures Committee of ASCE's Geo-Institute.
  - iii) FHWA: invited workshops on geotechnical performance issues
  - iv) Southeast conference in Baton Rouge, LA
  - v) Fifth international conference on bridge safety, maintenance and management. Location: July 11-15, 2010, Philadelphia, PA.
- c) New topics & other business

## 8) Presentations

- i) Implementation of LRFD for Foundations Geotechnical Design . Naser Abu-Hejleh, Ph.D., P.E
- ii) Design Guidelines for Increasing the Lateral Resistance of Highway Bridge Pile Foundations by Improving Weak Soils (NCHRP 24-30): Kyle Rollings

## 9) Adjourned

Adjourned at 12:00 PM