WSDOT/ACEC Structures Team
Minutes
ACEC/WSDOT Bridge and Structures Committee
10:00AM to 2:00PM
11/20/2015

WSDOT Bridge and Structures Office

Attendance:

WSDOT	Jeri Bernstein, P.E., S.E.	Washington State Ferries (Co-Chair)	Yes
	Geoff Swett, P.E., S.E.	WSDOT - Bridge Design	Yes
	Mark Gaines, P.E	WSDOT - HQ Bridge Construction	Yes
	Jed Bingle, P.E., S.E.	WSDOT - Bridge Design	Yes
	Glen Scroggins, P.E, S.E.	WSDOT - Bridge Preservation	No
ACEC	Jim Schettler, P.E., S.E.	Jacobs Engineering (Co-Chair)	No
	Bill Elkey, P.E., S.E.	Parsons	No
	Richard Patterson, P.E., S.E.	COWI Birdge	Yes
	Chester Werts, P.E., S.E.	HDR	Yes
	Paul Guenther, P.E., S.E.	COWI Marine	Phone
	Paul Brallier, P.E., S.E.	HNTB Corp.	No
	Matthew Lengyel, P.E., S.E.	FIGG Bridge Engineers	Phone

Meeting Began at 10:14 AM

- **For the benefit of those on the phone, members introduced themselves.**
- **Approved 6/19/2015 Meeting Minutes**
- **Western States Bridge Conference and SEAW Seattle Meeting**
  - Grade 80 reinforcement
    - Chester identified a potentially controversial presentation that stuck out by ODOT concerning the use of Grade 80 reinforcement in bridge decks. Maintaining the same capacity and using fewer bars (at the same strain) may result in service level cracking. Chester asked about the group's experience with Grade 80 reinforcement.
    - Geoff described the previous use of Grade 80 reinforcement in concrete shafts to reduce congestion, but not in bridge decks.

        - Matt described his experience using Grade 80 reinforcement in concrete shafts. He cautioned against the use of Grade 80 and shared an anecdote with brittle behavior. He described an instance at a project site where bars were impacted from a vehicle collision and some Grade 60 bars yielded and some Grade 80 bars fractured.
        - Mark explained that WSDOT requires the use of ASTM A706 bars due to the level of strain after yield provides greater ductility.

    - Thermal Integrity Monitoring during construction and curing of concrete shafts
        - Mark discussed the experience WSDOT has been having with projects using thermal integrity monitoring in concrete shafts. The thermal monitors throughout the length of shafts record the temperature of the concrete during the concrete pour and the subsequent few days. Interpretation of the temperature data can provide information on the concrete cover, concrete strength and anomalies.
        - Mark described that the results from the initial implementation has led to an interpretation of a lack of cover in the bottom third of shafts.
        - Richard shared his experience using CSL to validate concrete shafts at the SR 519 Intermodal-Grade Separation project.

    - SEAW Seattle Cascadia Subduction Zone
        - Jeri described a presentation provided by the University of Washington during a Structural Engineers of Washington (SEAW) meeting regarding their ongoing research of the results of a magnitude 9, Cascadian Subduction Zone earthquake. She described that site-specific soil conditions were included in the research and that response spectrum accelerations for longer period structures will increase. Also, peak accelerations are anticipated for longer duration. She conveyed that it may be interesting to see the impacts of the research on structural designs with greater seismic demands.

- **Review of Team Charter; Co-Chair and Team member**

    - Advertising project support to Local Agencies
        - Geoff discussed advertising our services for project review with WSDOT Local Programs for publication in the upcoming LTAP Newsletter. Geoff also discussed some confusion that Tom Baker had with the scope of the review that this committee is offering to provide. Geoff spoke to Tom and described that the effort is expected to be as much as can be offered during a regular meeting, similar to WSDOT/AGC and WSDOT/ADSC meetings.

    - Review of Team Charter

        - The group reviewed the team charter. Names and affiliations for members and sponsors were updated.
        - The group discussed the need to refine the charter to emphasis that members attend meetings face-to-face. No conclusion to amend the charter was made.
        - Geoff questioned the need to continue meeting as a committee. The group reviewed the team purpose as described in the team charter and discussed past and future topics. No conclusion to amend the charter was made.

    - Future topics
        - Richard described how the WSDOT/AGC/ACEC Design-Build Committee issues a call for future topics at the end of each year. Members are expected to contribute to the team and are seriously questioned about their participation.
        - Richard proposed the team discuss the role of engineers (Consultant and WSDOT) under Design-Build and GCCM contracts, specifically regarding bridges.
        - Geoff proposed the team reviews and provide comment on the "Project Delivery Method Selection Guide".
        - The group discussed delivery methods. Mark commented on the selection coming down to owner control and eliminating methods based on the lack of potential to innovate.
        - Richard and Geoff proposed the group review the WSDOT BDM Design-Build Chapter and RFP Template 2.13, including Richard Zeldenrust.

- **WSDOT/ACEC Structures Website**
    - Website and engineering design review advertisement
        - Geoff stated he would continue to work with WSDOT Local Agencies.
        - Matt stated he contacted Mike Clark, the current President of the APWA-WA, and that Mike was willing to help distribute our advertisement to APWA members.

ACTION ITEMS

- **Provide portion of newsletter created by WSDOT Local Agencies to APWA.**

- **Review of Standard Specification and Construction Manual Modifications**
    - Mark presented upcoming revisions to the WSDOT Standard Specifications.

        - Std. Spec. Section 6-02.3(24)F Mechanical Splices and corresponding Construction Manual section
            - Specifications will be modified to delete reference to sleeve-filler splices.
            - Mark discussed redefining thermal splice to welded splices.
            - The group discussed modification to other requirements, and the location and cover for mechanical splices.

- Std. Spec. Section 6-02.3(6)A1 Hot Weather Protection
    - Specifications will be modified to delete bridge deck requirements covered by new performance mix requirements.
    - The group discussed changes regarding air temperature and concrete temperature.
    - The group discussed eliminating requirements to shade mixer trucks, chutes, conveyors and pump lines.

- Std. Spec. Section 6-02.3(6)A2 Cold Weather Protection
    - Specifications will be modified to provide requirements to ensure the concrete remains above 40 deg. F and prescribe requirements when air temperature is predicted to be below 35 deg. F.
    - Mark discussed including temperature monitors to sensor the temperature of concrete and requiring testing of concrete cores to determine concrete compressive strength.

ACTION ITEMS

- **Once complete, Geoff will share Std. Spec. modifications for pile casing, shaft casing and CFTs for review**.

- **Consultant Co-Chair Succession**
    - The group began to discuss reviewing resumes for new consultant members with the expectation that the member become the co-chair.
    - Paul Brallier joined the meeting via phone and accepted the responsibilities of co-chair.

- **Agenda items deferred to next meeting**
    - Durability of Structures Discuss – Design Criteria Discussion
    - Post-Earthquake Inspection of Bridges Manual for Local Agencies
    - Review WSDOT EOP-Emergency Operations Plan

- Next meeting moved to January 22, 2016 at Richard Patterson's Office

- Potential Topics
    - Project Delivery Method Selection Guide
    - Durability of Structures discussion
    - Create Brief Power Point for Post-earthquake inspections of Bridges for Local Agencies
    - Concrete Cover in corrosive environments

The meeting adjourned at 12:55 pm.