

# WSDOT/ACEC Structures/Geotechnical Team

## DRAFT MEETING NOTES

10:00 AM -2:00 PM

09/21/2018

At

COWI office in Seattle

1191 2nd Avenue, Suite 1110

Seattle, WA 98101

### Mtg Attendees

WSDOT	Jeri Bernstein, P.E., S.E.	Washington State Ferries (Co-Chair)	
	Michael Rosa, P.E., S.E.	WSDOT - HQ Construction Office	
	Lou Tran, P.E.	WSDOT - Bridge Design	
	Tony Allen, P.E.	WSDOT – Geotechnical	
	Evan Grimm, PE, SE	WSDOT – Bridge Design	
	Nick Rodda, PE, SE	WSDOT – Bridge Design	
ACEC	Matthew Lengyel, P.E., S.E.	FIGG Bridge Engineers (Co-Chair)	
	Paul Guenther, P.E., S.E.	COWI Marine	
	Paul Brallier, P.E., S.E.	HNTB Corp. (Co-Chair Transitioning Off - Retiring)	
		WSDOT Bridge Office	
		WSDOT Bridge Design	

#### 1. Review and Approve Meeting Minutes from May 18, 2018

Discussion regarding updates since the last meeting. AASHTO T-15 revisions adopted, including changes for soil nails. Geotechnical RFP revisions made.

#### 2. Succession Planning

WSDOT-Replacement-2 WSDOT Members

Mike Rosa moves to HQ Construction Office but stays on the committee in that roll. His term will be reset.

Nick Rodda joins from WSDOT Bridge Office. Formerly of HDR Olympia.

Jeri Bernstein will transition off the committee the end of June 2019. A new WSF person will fill her spot. WSDOT will need to select a new co-chair.

Tony Allen is retiring next year. Tony suggested that he have a replacement and an alternate to his replacement so that geotech's can be represented at each meeting. No objections by the committee. Tony suggested Jim Cuthbertson as an alternate for himself.

ACEC-Replacement-2 ACEC Members

Status of Advertisement for 2 ACEC members - No response from ACEC Board regarding new recruits.

**Action Item** - Matt L. to create a list of ACEC firms to contact to get applicants for consultant members.

Suggested to contact person who was not selected last time. Vu of Jacobs/CH2M

Suggested that Dan Campbell arrange for an alternate ACEC geotech to cover if he is not available. Tony suggested Barry Chen as an alternate for Dan.

### 3. Review Website Information

ACEC/WSDOT Committee page is no longer linked to the WSDOT Bridge page. Evan Grimm is looking into re-establishing link. Bridge Office has some ability to modify. Will eventually be on the "Industry Participation" page link on the Construction Office webpage. Will continue to request to put the committee tab back on the Bridge Office page.

Still have access to a ACEC Structures Sub-Committee page and Jeri can make updates and add minutes. (Note: The page exists it is just not linked on the Bridge Office page. Accessible by searching "ACEC Structures" on the main WSDOT website).

Jeri will update all of the committee activities since November 2017 to this website.

### 4. Update on Previous Meeting's Action Items:

- Paul Brallier: Follow up to ensure that the IBC funding/support request gets brought to ACEC. No formal response from ACEC Board. Mike to check with Amy Leland to confirm request amount and if they have any new ideas after attending this years event. Meeting next June 2019. There will be a special session just on WSDOT projects.
- Matt Lengyel: Deadline for submissions of abstracts is Oct. 1, 2018. (250 words). Presentation and paper due in April. Tunnel, floating bridges...some good repainting projects.
- Tony Allen: WSDOT reviewed Geotechnical professional inspector for DB (GSI) RFP requirements and came to conclusion that specs are clear. The geotechnical EOR is required to oversee the GSI. Problem is behavior of DB contractors and lax enforcement within WSDOT.  
Is there a clear path for the GSI to ask for enforcement of the Contract by WSDOT?  
Problem - General contractor has contractual relationship with GSI. GSI does not have a contractual relationship with WSDOT. Enforcement - penalize bad contractors in future proposals.  
There should be an avenue for collaborative approach on resolving disputes. Contractor's mission is to maximize profit by reducing the amount of work they perform. Consistent contract enforcement is needed.  
Picking your battle? Interpretation between QA versus GSI. GSI should be part of QA and separate from field workers. GSI is required to be providing oversight of geotechnical work.
- Evan Grimm: Rewrite of Section 2.13 of the draft WSDOT Design-Build Manual.  
Changes:  
Conceptual Plan check list of site data for RFP. Preliminary plan submittal should have the full BDM checklist for TS&L.
- General discussion regarding DB submittal reviews and comments:  
Important that review comments cite the Contract reference. Identify owner preference. Identify errors like thru AASHTO equation reference. Analysis - shall submit complete and accurate calculations. Also note QA has not been performed. Sometimes the State may choose to spend money on preferential comments. Also - something missed in DB design can be enforced even after constructed.
- Other DB process revisions:
  - i. Continue with Conceptual design for DB which is in the DB manual. Also revised Box Culvert to buried structures.
  - ii. GEC instructions regarding buried structures? Type size and location layout needed for bridges and Buried structures spanning 20 ft and Retaining walls 100 ft long (delete 100 ft ) and more than 5 ft (change to 10ft). Both equal "major structures.

1. Committee recommends deleting retaining wall 100 ft length reference and changing minimum height reference to 10 ft before they become "major structures".
  - iii. GEC: Committee suggests - Show retaining wall plan and elevation (plan on roadway alignment) and typical section to show cut or fill and adjacent structures/surcharge issues / utilities.
  - iv. Coordination of disciplines on DB - packages may be sent out separately and this can lead to missing certain issues. DB plan submittal should identify interferences and have Interdisciplinary review.
  - v. Scour and stream migration for a new design on DB? Needs to be in the hydraulic report per RFP.
  - vi. Section 2.13 template added usage to warn - writer needs to consult with Bridge office for changes to 2.13.
- Mike Rosa: The ACEC Structures Team review request was a false alarm. No review required.

## 5. Update on IBC 2019

Amy Leland will give update on IBC plans at the next committee meeting.

## 6. Design Build-

Committee members to review and comment on current RFP Sections 2.6 Geotechnical & RFP 2.13 Bridge Structures. Current template sections sent to committee members before the end of the meeting.

**Action Item** - Tony and Matt to ask ACEC geotech committee members to provide comments on minimum requirements for geotech calculations. Including:

Outline template of items that are expected to be submitted. Geotech calcs are highly variable on content from one DB Contract to another. This is related to how aggressive the Contractor is at forcing designers to not submit items not specifically required in the RFP text.

Example: Structures Section 2.13.7.1.4 requires numbered pages, loadings, structural analysis, results, design criteria, settlements, member capacities, geotech calcs, deflection, creep, computer output, spreadsheets, computer input and output files.

WSDOT Design-Build Manual update - discussed above

WSDOT Quality Management Plan (QMP) template updates - DB Group has not updated the plan. Mike to check up on status. Current template is archaic. If a draft QMP is available it will be circulated to the committee for review.

## 7. Goals for this year

Generally discussed setting goals for the year and decided to discuss further at the next meeting.

**Action Item** – Committee members should bring 1 to 2 ideas for goals to the November meeting.

## 8. Conferences and Seminars Attended by WSDOT/ACEC Members Brief summary

Tony - scobs - AASHTO Committee report. Overall stability shifted to ultimate limit state LRFD. Soil nail specs added. Service limit state for bridge footing settlements (now calibrated). ABC guide spec. - released but lots of discussion on seismic connections. A little more money is available for improvements to the specs. Next AASHTO update 2020. No interims. Revisions can get queued but not released.

Mike - next Std Spec release will be 2020. No more amendments to Standard Specifications in between editions. Only electronic editions. Contractor will need to print a book by themselves.

Matt - scobs committee on bridge and structures. Barriers going to require crash tested designs through "MASH." Moments triangle distribution under consideration and research to be revised to trapezoidal shape, thus reducing need for reinforcing. There will be fewer types of barriers available because many have not been crash tested. Paul pointed out that the risk of injury claims is higher on barriers than bridges because barriers get hit so often.

Lou - Service life in Oregon. NCHRP. Focused on bridge decks. Testing on chlorides around US (Oregon??) showed 2.5" cover gets good protection. Types of overlay evaluated based on different applications (like on mountain passes versus other locations). Oregon mapped chloride levels. Washington has not recently mapped chloride levels in decks, but does track regions with large numbers of bridge deck deterioration/spalling.

Lou - 100 year service life - AASHTO may be moving towards this (Sharp program recommending?). Will move to corrosion resistant steel in rebar instead of epoxy coated. Substructure 100 year service life too. Could add significant cost.

Discussion of owner's choice to require 100 year or higher service life on bridges.

Matt L. - In DB contracts service life more than 75 years ends up using debatable and sometimes questionable analysis methods to justify the service life. Better to give prescriptive construction requirements in the RFP to obtain higher than 75 year service life.

Post tensioning service life - Florida DOT is now requiring external tendons be filled with flexible-fill instead of grout.

**9. Next Meeting November 16, 2018 Tumwater**

Nick Rodda will give a technical presentation on Rockingham Bridges parallel spliced girder bridges.  
Amy Leland will present IBC update