

WSDOT/ACEC Structures/Geotechnical Team

MEETING MINUTES

December 2, 2022 -- 9:00 AM – 12:00 PM

MS Teams Meeting

WSDOT	Bijan Khaleghi, PE/SE	WSDOT – Bridge Design (co-chair)	x
	Evan Grimm, PE/SE	WSDOT – Bridge Design (incoming co-chair)	x
	Katie Olleman, PE (in process)	WSDOT - Bridge Design	x
	Doug Olson, PE	WSDOT – Bridge Design	x
	Richard Brice, PE	WSDOT – Bridge Design	x
	Scott Sargent, PE	WSDOT – Construction	
	Michael Rosa, PE/SE (visiting)	WSDOT – Bridge Design	x
	Jeri Bernstein, PE/SE	Washington State Ferries	x
	Julie Heilman, PE	WSDOT – Hydraulic Office	x
	Andrew Fiske, PE	WSDOT – Geotechnical Office	x
ACEC	Joan Zhong-Brisbois, PE/SE	Jacobs (co-chair)	x
	Lee Andrews, PE/SE	HDR	
	Matt Barber, PE	WSP	x
	Matt Baughman, PE/SE	COWI	x
	Stan Boyle, PE	Shannon & Wilson	
	Brice Exley, PE	Hart Crowser	x
	Eric Herzstein, PE/SE	Parsons	x
	Yang Jiang, PE/SE	HNTB	x
	Scott Phelan, PE/SE	Conсор	x
	Reza Sehhati, PE	Conсор	x

1. Review meeting agenda (5 minutes) – All

No addition agenda items.

2. Review minutes from September 16 meeting (5 minutes) – All

Katie mentioned that she has passed PE exam and is in the process of licensing in WA and other states. Congrats to Katie.

3. Introduction (5 min) – Evan

- Upon Bijan’s retirement, Evan thanked Bijan for his many contributions to ACEC-WSDOT Structures/Geotechnical Team enhancing the important communications between WSDOT and private sector. Though it has not been easy to fill Bijan’s role, Evan expected to announce the replacement in a few weeks.

- Given the current workload in project delivery, Evan emphasized that WSDOT will continue (and even more so) to lean on private sector's help to achieve the goal.

4. Bridge Office Update (10 minutes) – Bijan/Evan

- a. Changes in Covid restrictions
- b. Bijan retirement

5. BDM update on seismic risk map and approach (15 minutes) – Bijan/Andrew

- Adopted a risk targeted approach; Risk-targeted ground motions
- The USGS has prepared the AASHTO-USGS Seismic Design Ground Motion Database for AASHTO
- Consideration for pilot projects implementing 2022 Revised Guide Specs for LRFD Seismic Bridge Design
- Innovations in bridge design, materials and construction

Action:

Bijan to pass on relevant information to Andrew

6. Project highlight: West Seattle and Ballard Link Extension (30 minutes) –

Yang presented *West Seattle and Ballard Link Extensions* (WSBLE) to the group with. It is a high-profile project in this region, raising awareness of the need in engineering/construction workforce. The presentation was very well received.

- WSBLE project
- West Seattle Link Extension preferred alternatives
- Ballard Link Extension Draft EIS alternatives
- Q&A

Break (15 minutes)

7. Update on the tsunami design requirements (15 minutes)– Bijan/Andrew/Julie/Evan

- Tsunami design requirement memo is still being vetted as of this week. It is a collaborative effort between Bridge & Structures, Hydraulic and Geotechnical.

- Impacts on project cost & schedule need to be assessed realistically, especially Tsunami-scour impact on fish passage projects near the coast. WSDOT is working with the states of OR and CA through West Coast Seismic Coalition pool fund to evaluate the bridges. At this time with limited project examples, Tsunami in general appears easier to consider compared with seismic requirements, have no significant impact and, require more changes in detailing than that of design, such as reducing buoyancy, bearing tip-over. Implementation of Tsunami requirements could still take several months from now.

8. Status update on consolidating BDM Chapter 15 and RFP (10 minutes) – Michael Rosa

It turned out a much greater endeavor than expected, and the progress has been slower than originally anticipated. A new approach has been adopted to distribute Chapter 15 into main chapters, revise the preferential languages to better suit Design Build delivery. The revisions will be included in the next round of BDM update. In the meantime, conflicting languages are being removed from RFP 2.13 either through WSDOT authorship in larger projects or through WSDOT HQ review in smaller projects.

9. *Question of the month* – Can Geofam be used as backfill for buried structure to expedite the construction? (10 minutes) – Joan/Andrew and all

Andrew: Geofam was commonly used to alleviate loads on soils of poor condition. Though it is not prohibited in buried structure application, there are concerns of light weight prone to uplift due to buoyancy in a flood region. Past practice includes applying geomembrane to protect geofam, and adding load distribution slab on the top. Alternatives of geofam as backfill include low density concrete and lava rocks, which are less separable when subjected to buoyancy.

Joan calls for team members to submit real-world questions for future discussions featured as “Question of the month”.

10. Coping with inflation and supply chain pressure – what can engineers do to mitigate its impact on bridge projects? (20 minutes) – Joan, Evan, Andrew

With the on-going inflation and supply-chain pressure, the number of or the scale of planned projects would have to be reduced due to significant cost

increases. In order to reduce the cost impact, ways to innovate in project delivery (design and construction) are needed and actively sought after. For example, minimize the risk of Right-of-Way purchase by utilizing stream boundary walls to reduce scour impact; weighing ROW and fish window in construction sequencing and permitting (Evan); Through research in unique soil types, avoiding conservative estimate in establishing an erodibility threshold and adopting an iterative approach for the geotechnical and hydraulic assumptions (Andrew). Evan appreciates and calls for more innovations from the consultant partners.

11. Topics for future meetings in January, March and May 2022 (10 minutes) –

Rick offered to discuss about UHPC design specifications expected in next round of AASHTO publication.

12. Adjourned around 11:50am.

Future meeting dates:

January 20, 2023

March 17, 2023

May 19, 2023