

**March 14, 2008 Meeting –**

**Parsons Brinckerhoff Office  
 999 Third Ave, #2200  
 Seattle, WA 98104  
 22<sup>nd</sup> Floor Large Conference Room  
 Phone: 206-382-5200**

**Members:**

<u>WSDOT</u>	<u>ACEC</u>	<u>Guests</u>
Dick Stoddard (705.7217)	Mark Johnson (CH2M HILL)	none
<del>Ron Lewis</del>	Paul Bott (HDR)	
Matt Preedy	Steve Aisaka (Parametrix)	
Bill Prill	David Goodyear (TY Lin)	
	Jim Schettler (Jacobs)	
	<del>Rich Johnson (HNTB)</del>	
	Yuhe Yang (PB)	

**Agenda for 3/14/08 Meeting:**

- Look at ACEC website and consider other content to be added (**all**)
- Look into adding a WSDOT committee member from the region (**Matt**)
- Propose schedule to review BDM chapter-by-chapter regarding contract-enforceable language (**Jim**)
- Look into I-5 Everett DB and I-405 S Bellevue DB contracts to see what the contract requires the EOR to do in as-building the design plans (**Jim, Mark**)
- Ask Pasco about sealing as-built plans and invite to next meeting (**Dick, Bill**)
- Prepare draft memo regarding committee recommendations on co-location (**Dick**)

9:00 am	30 min	<ul style="list-style-type: none"> <li>• Review ACEC Website</li> <li>• Bridge Design Chart</li> </ul>
<p>Reviewed the latest WSDOT/ACEC Structural Subcommittee website</p> <p>Reviewing BRIDGE DESIGN CHART. How much to provide on the preliminary plans for the environmental review? Without limiting the options for the contractor in order to get the best price and quality.</p> <p>Environmental permit document that recommended specifications for environmental process has not been adopted by WSDOT. Reviewers appear to want requirements to remain vague so that each project can be reviewed on an ad-hoc basis.</p> <p>Next meeting we'll invite Jugesh and Bijan for discussions on technical and BDM issues</p>		

related to design-build. This will get the committee back towards technical subject that were the original focus of the committee.

9:30 am	30 min	<ul style="list-style-type: none"> <li>• AWW related</li> <li>• Earthquake related issues</li> <li>• WSDOT ACEC member replacement</li> </ul>
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Discussed issues for AWW project.  
 UCO reorganization meeting on Monday. AWW inspection next weekend. The AWW team reanalyzed the seismic risk. EQ vulnerability and liquefaction will get more attention in a week and half. Study was based on site specific data. AWW south end design will use the new AASHTO seismic criteria. AWW did extensive Battery Street tunnel investigation. The report is almost in final format. Theory of corrosion calculation work well for the piles in contact with native soil, but not with imported soil.

Discussed issues related with EQ design & construction, with reference to the new ground motion and liquefaction design criteria. Design standard has to consider the overall environment and the surrounding. The design should make sense regarding the value of mitigation versus the costs in relation to other priorities and return period for the earthquake. There has been a policy shift that affects retrofit costs.

Widening without seismic retrofit for the existing structure has been the practice. Problem facing now: Bridge widening that encounters possible soil liquefaction issues results in significant cost increases to retrofit the existing structure as part of the widening – these costs have generally not been programmed.

On a related point the question of whether or not battered piles be used with the vertical piles for retrofit of an existing foundation that has battered piles was discussed. The current approach of using all vertical piles for new bridge structures may not be compatible with an existing footing that has battered piles. Further consideration could be given to this problem for recommendation to WSDOT as a policy. WSDOT Bridge and Structures headquarters need to be involved in the recommendation.

Battered pile vs. vertical pile. SF Bay bridge used slightly battered pile helped to reduce overall pile demand for very high seismic conditions. Use battered pile could potentially reduce the number of pile to half. Quality control for the contractor to control the batter angle may be a challenge to relatively small projects. For large project, contractor will invest money in temporary works, such as the Bay bridge.

**BDM Review 10:15 AM**

The task should be co-lead by both a WSDOT representative and Consultant representative. Jim Schettler is the Consultant representative. Dick will work with Bijan to identify the WSDOT representative. The review and comments need concurrence from WSDOT B&S Office. Ideally, the WSDOT engineer responsible for specific portions of the BDM will participate in the discussions.

Target for the completion of the review with recommendations by the end of 2008 is aggressive and may not be possible. Each month will have a lead person to facilitate the review of a portion of the BDM for recommended clarifications for application to DB. During the month, the entire committee will review the designated section of the BDM and come to the meeting with comments for discussion. The review may also include recommendations not specific to the scope of DB, including the control language, etc. Providing input based on experience gained in current DB projects.

Consideration should be given to producing a product instead of just recommendations. Once recommendations are given from a few of the Chapters, how best to convey this can be discussed.

It was noted that different states do have different policies regarding to the design policy.

Spring value for spread footings in BDM may need revisiting. The value may be based on relative old source document.

With the availability of the new AASHTO LRFD, the BDM is more important as a guideline for the engineers.

The DB document from BC is a good resource.

Performance vs. meeting specification in a DB project may be further looked upon. It is worth collecting feedback from all sides. Look into the language and criteria.

Engineer of Record encountered a recent issue in a DB project. Current DB spec language appears to be contrary to WAC requirements for PE's. Committee will offer suggestions for modified language to WSDOT. The question relates to the requirement for responsible charge. The Engineer should not be called upon to stamp decisions by others not under his charge – i.e. approve a construction detail that was developed by a supplier's engineer and approved by the State and was built already. A similar concern exists over the requirement for the preparer of shop drawings (that depict someone else's design) to stamp those drawings.

**11:15 AM**

Look into I-5 Everett DB and I-405 S Bellevue DB contracts to see what the contract requires the EOR to do for as-built plans.

Review and discuss I-405, 112<sup>th</sup> Ave SE to SE 8<sup>th</sup> St Widening RFP, Technical Requirements.

The requirement appears needing significant amount of PE time. There is usually not enough budget for this.

2.12.3.4. "...daily changes ..." is appears excessive so should consider removing the

word “daily”.  
 “...in accordance with Washington State codes...” is not a clear definition.

Require shop drawing to be signed by a PE is contrary to the licensing law, unless the PE is directly supervising that task.

Requirement for stamps from QA manager and EOR is not clear on what type of stamps will be required.

Redline correction will come from a contractor, should contractor pay for engineers to field verify?

Should we add another chapter to BDM for the DB contract issues?

**12:00 noon**

Discuss on co-location for DB projects.

Option: have only the design leads to co-locate or meeting frequently, which may save the cost. SR16 co-located the design group, structural work was done remotely. Contractors may like to co-locate in order to have the dedicated resource.

Bridge & Structure Office now has the design staff and preservation staff in the same office. The communication is better.

It would be nice to have the environment permitting training in 2008.

May ASCE meeting, Dick and Mark will make a presentation.

12:30 pm.	30 min	Wrap Up Prepare for the next meeting Next meeting agenda: 1. Introduction of new members 2. Introduction of sponsors 3. Discuss direction and goals of this committee 4. How or if the BDM needs to be updated for DB 5. EOR responsibilities on as-built documents 6. Endorsement of co-location letter
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Notes:  
 Next meeting -- WSDOT , April 11, 2008 in Bridge and Structures Office, Tumwater

1:00 pm.		Adjourn
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**Action Items after 3/14/08 Meeting:**

- Invite WSDOT Bridge Design Engineer and State Bridge Engineer to attend next meeting (Dick)
- Initiate conversation with Bridge and Structures Office in regarding to the proposed BDM review (Dick)
- Select a WSDOT Engineer to be co-lead of the DB BDM review. (Dick in conjunction with Bijan)
- Communicate to Don Nelson regarding the improvement of DB contract RFP requirement (Dick)
- Email the current version of DB RFP document to the ACEC/Structure committee members (Bill)
- Check the environmental training schedule (Dick)