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Complied 2015 Meeting Minutes

for the

WSDOT/AGC/ACEC Design-Build Committee

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WSDOT/AGC/ACEC DESIGN-BUILD TEAM MEETING Meeting Minutes

January 22, 2015

1:00 pm to 4:00 pm

WSDOT Corson Ave Office, Conf. Rm. 204

6431 Corson Avenue South, Seattle, WA

No Teleconference line requested

Co-Chairs Scotty Ireland and Paul Mayo

AGENDA ITEMS:

1. Sign-In Sheet/Open the meeting / Introductions

Scotty / Paul/All

A. Safety Briefing

B. Review and Update Sign-In Sheet

Attendees:

| Type | Member | Organization | Phone | Email |
|-------|-------------------|--------------------|--------------|--|
| AGC | Adams, Bob | Atkinson Constr. | 425-255-7551 | Bob.adams@atkn.com |
| WSDOT | Barry, Ed | WSDOT-HQ DN | 206-805-2924 | barryed@wsdot.wa.gov |
| AGC | Bednarczyk, Marek | Graham Constr. | 206-729-8844 | marekb@grahamus.com |
| WSDOT | Boutwell, Jami | WSDOT-NWR 405 | 425-456-8504 | boutweij@wsdot.wa.gov |
| WSDOT | Clarke, Brenden | WSDOT - OR | 360-357-2606 | clarkeb@wsdot.wa.gov |
| ACEC | Crowe, Eric | AECOM | 425-208-9083 | Eric.crowe@aecom.com |
| WSDOT | Eckard, Teresa | WSDOT-HQ CN | 360-705-7908 | eckardt@wsdot.wa.gov |
| WSDOT | Ireland, Scotty | WSDOT-HQ CN | 360-705-7468 | irelans@wsdot.wa.gov |
| WSDOT | Jepperson, Omar | WSDOT-NWR 405 | 425-456-8610 | jepperO@wsdot.wa.gov |
| AGC | Larson, Phil | Atkinson | 425-508-6718 | Phil.larson@atkin.com |
| AGC | Mayo, Paul | Flatiron Corp | 425-508-7713 | pmayo@flatironcorp.com |
| WSDOT | Mizuhata, Julia | WSDOT-NWR 520 | 425-576-7059 | MizuhaJ@wsdot.wa.gov |
| ACEC | Eric Ostfeld | Parsons | 206-643-4269 | Eric.ostfeld@parsons.com |
| AGC | Pindras, Greg | Max J. Kuney | 509-535-0651 | gregp@maxkuney.com |
| AGC | Vanderwood, Jerry | AGC Chief Lobbyist | 206.284.0061 | jvanderwood@agcwa.com |
| AGC | Young, Frank | Kiewit | 206-295-8735 | frank.young@kiewit.com |
| AGC | Larson, Mattson | Kiewit | 425-318-5296 | mattson.larson@kiewit.com |

C. New Member – Brenden Clarke

Scotty reviewed the safety briefing, sign-in and there were introductions of the members for Brenden. Brenden gave his background with WSDOT- he has been with WSDOT for 24 years. Worked in a number of offices within the Olympic Region performing various roles under Construction Administration, Design, Traffic, and Planning. He was a Project Engineer at the Port Orchard office for a number of years before working on the SR 520 Pontoon Casting Basin D-B project. He worked on the SR 167 Puyallup River Bridge RFQ and RFP, and followed the project to construction

2. Review Previous Meeting Minutes

All

The October 30th DRAFT meeting minutes were distributed to the Team on 11/7/2014. After receiving no comments, they were finalized and posted to the website on 10/20/2014. Meeting minutes are located at:

<http://www.wsdot.wa.gov/Business/Construction/MeetingMinutes.htm>

The December 11th meeting was cancelled.

There were no new changes to the Dec 11th meeting minutes.

3. Review/Update the Existing Team Charter

Paul/Scotty/All

i. Team Mission

Scotty and Paul reviewed the Team Mission – no changes
Talked about Scotty and Teresa meeting with Paul prior to finalizing agenda, will continue to do this.

ii. Team Goals

Scotty and Paul reviewed the Team Goals – no changes

iii. Team Organization and Responsibilities

Scotty and Paul reviewed the Team Organization and Responsibilities – no changes

iv. Operating Guidelines

Scotty and Paul reviewed the Operating Guidelines – minor changes- see attached revised Charter.

4. Annual Goals and Topics for 2015

Paul/Scotty/All

i. Design-Build RFP Chapter 2 Section Template Reviews

The group reviewed and assigned Chapter 2 sections to the meeting dates – see the Meeting/Topic spreadsheet, attached.

ii. Other Goals and Topics

Paul reviewed goals for the year and setting topics for the year. Goals include review of sections of chapter 2, DBE language review and Project Delivery Selection Method Guidance (PDMSG). The group reviewed and assigned proposed topics to the meeting dates – see the Meeting/Topic spreadsheet, attached.

5. Old Business

A. Update on WSDOT Design-Build Tasks

i. DBE Final Draft Status

Scotty talked about status:

Two items may be removed if they are not approved by the FHWA in the next couple weeks:

1. Credit for Utilizing First-Time DBE
2. DBE Overhead Administration Expense Reimbursement

WSDOT will continue to work for these separately.

Also, because of input from the DBE and Contractor community, two sections will be changed back to the original language:

1. Brokerage Fee (Will be credited toward meeting the contract DBE goal.)
2. Joint Checking (WILL be allowed)

Expect new language to be implemented in Feb, 2015.

ii. Design-Build Program Status

Teresa and Scotty talked about Work Group – letter of participation is out. Updating template contract documents, tools, manuals, processes and training will proceed this year. Work group Kick-off in March.

iii. Small Design-Build Pilot Project Report/Survey

Report is in final stages of review. Report will be available by next meeting at latest.

iv. Project Delivery Method Selection Guidance

Work is proceeding; expect to bring to Committee for review in April.

6. New Business- No Items

7. Review and Expand Action Items

Completed items are shaded.

All

| Subject | Item Description | Due Date | Responsible | Status | Completion |
|-------------------------------|--|---------------------|--|---|--------------|
| DBB Bid Process | Electronic data and plans were requested at bid process. Report back on status of the request. | Oct 30, 2014 | WSDOT- Ed | Completed | 10/30/2014 |
| DB Small Projects | Get input/LL from Contractors on small DB pilot projects | Week of Nov 3, 2014 | AGC -Paul/ WSDOT-Scotty | Completed | 9/20/2014 |
| DB Contract Templates | Confirm status of Template Documents | Oct 30, 2014 | WSDOT –Teresa | Completed | 10/30/2014 |
| Meeting Minutes | Add a TOC for compiled MM | Dec 1, 2014 | WSDOT - Teresa | Completed | 11/20/2014 |
| Sign-In Sheet | Update and Correct with new members | Dec 1, 2014 | WSDOT - Teresa | Completed | 11/20/2014 |
| Small DB Projects | AGC and ACEC input on survey for small DB projects | Nov 10, 2014 | AGC – Paul ACEC – Richard | Completed | 11/10/2014 |
| Small DB Projects | Send survey to AGC and ACEC members on small DB Projects | Nov 13, 2014 | WSDOT - Teresa | Completed | 11/13/2014 |
| Small DB Projects | Surveys returned from AGC and ACEC members on small DB Projects | Nov 20, 2014 | AGC and ACEC members | Completed | 11/20/2014 |
| DB Program Development | Discuss Adobe Share Review for chapter 2 sections review with Janice Christian | Nov 14, 2014 | WSDOT - Teresa | Completed | 11/13/2014 |
| DB Program Development | Members identify top 10 Chapter 2 sections that they want to review | Nov 7, 2014 | AGC/ACEC | Completed | Jan 5, 2015 |
| DB Program Development | Check to see that section 2.13 changes were incorporated in current chapter 2 template | Nov 20, 2014 | WSDOT - Teresa | Completed | Jan 5, 2015 |
| DB Program Development | Members identify one upcoming topic, minimum, for committee | Jan 22, 2015 | WSDOT/AGC/ ACEC | Completed | Jan 22, 2015 |
| Reviews | Review document review software | Jan 30, 2015 | WSDOT– Teresa Eric Ostfeld/Eric Crowe | Completed | Jan 28, 2015 |
| Reviews | Revise Chapter 2, Sections 2.6 and 2.13 to prepare for review | Jan 30, 2015 | WSDOT – Jami | Completed | Jan 29, 2015 |
| DB Small Projects | Provide copies of DB Small Project Pilot Program report if available | March 5, 2015 | WSDOT –Teresa | Expected at March 5 th Mtg. | |
| DB Program Development | Ask for and provide LL from AGC DB professionals | March 5, 2015 | AGC – Paul | Expected at March 5 th Mtg. | |
| DB Program Development | Request Tom Warren/others for sources of input on other agencies w/good DB processes and docs | March 5, 2015 | AGC – Paul | Expected at March 5 th Mtg. | |
| DB Contract Templates | Solicit Committee recommendations on Chapter 2 Changes | Feb 6, 2015 | WSDOT - Teresa | Drafts Out 2/6 Comments due 2/27 | |
| DBE Revisions | Copy Final Draft/Version of DBE revised DB specification to committee | April 16, 2015 | WSDOT - Teresa | Expected at April 16 th Mtg. | |
| Membership | Call Richard about replacing Jim Bauman | March 5, 2015 | WSDOT/AGC Paul/Scotty | Expected at March 5 th Mtg. | |
| Membership | Call Robyn Boyd | March 5, 2015 | WSDOT - Scotty | Expected at March 5 th Mtg. | |

8. Future Meetings:

All

Location: We will be meeting at the Corson Ave Project Office, Conference Room 204.

The address is:

6431 Corson Avenue South
Seattle, WA 98108

We will be evaluating this location at the October 30th meeting, but the plan is currently to continue at this location.

Future meeting dates:

March 5, 2015
April 16, 2015
May 28, 2015

Proposed Dates through the end of 2015:

July 10, 2015
September 10, 2015
October 22, 2015
December 3, 2015

Any planned changes to the programmed meeting dates will occur at least one week prior to the meeting.

Conference Call-In: Consistency in representation is important to the Team's success. If a member is not able to attend, a conference call line will be made available for the meeting if requested in advance.

WSDOT/AGC/ACEC Design-Build Committee 2015 Meeting Topic Schedule

| Meeting Dates for 2015 | Chapter 2 Sections | Other Topics | Subject Matter Experts | Leader/Comments |
|------------------------|---|---|--|--|
| March 5, 2015 | 2.13 Bridges and Structures DB-DBE section Draft | A pre-qualification list for D-B teams on Small Projects. DBE requirements and good faith effort in Design-Build | 1. Rich Zeldenrust – WSDOT 2. Denys Tak - WSDOT | 1. Section 2.6 was moved to April 16 due to the unavailability of WSDOT subject matter expert. 2. DBE spec moved to this meeting |
| April 16, 2015 | PDMSG 2.6 Geotechnical | Small DB Pilot Projects Report | 1. Jim Cuthbertson- WSDOT | |
| May 28, 2015 | 2.22 Maintenance of Traffic (MOT) 2.10 Utilities and Relocation Agreements GT107(17) | The relationship between the upset price and best value on WSDOT project | 1. | 1. Evaluate progress – determine if July mtg is needed |
| July 9, 2015 | 2.12 Project Documentation 2.28 Quality Management Plan (QMP) | Update on where WSDOT is on P3's. | 1. | 1. Chapter 2.28.4.4 Handoff of the RFC document 2. Can WSDOT specify required QC staff on the project including duration and number? 3. Does industry feel there would be a value in investigating the feasibility of alternative approaches for construction quality assurance for smaller projects |
| September 10, 2015 | 2.18 Intelligent Transportation Systems 2.29 Maintenance During Construction | | 1. | |
| October 22, 2015 | 2.8 Environmental 2.11 Roadway | | 1. | |
| December 3, 2015 | 2016 Annual Goals and Topics | | | |

Team Charter

WSDOT/AGC/ACEC Design-Build Committee

Team Mission

- **Vision** – A nationally recognized Design-Build Program that consistently delivers quality projects through positive coordination with Design-Builders, executed through competitive contracts that appropriately allocate risk, promote innovation and collaboration that ultimately benefits the citizens of Washington.
- **Mission** – Founded on strong WSDOT and Design-Builder relationships, further develop and maintain WSDOT's Design-Build Program based on the values of collaboration, innovation and continuous improvement that result in industry best practices.
- **Purpose** – To serve as a resource for establishing Design-Build policy, procedures and process improvement.

Team Goals

- **Seek Continuous Improvement** to WSDOT's Design-Build Program.
- **Develop and Maintain Excellent Communications** on WSDOT's Design-Build Program between WSDOT, AGC, ACEC and other interested parties.
- **Improve Understanding** of the value of Design-Build project delivery.
- **Encourage New Participants** in Design-Build project delivery from the design and construction industry.

Team Organization and Responsibilities

- **Membership** – Representatives include WSDOT HQ Design and Construction and project teams, the construction industry and the consulting engineer industry. Reference the attached membership table which will be updated at the start of each year.
- **Co-Chair Roles and Responsibilities:**
 - Co-Chair: Scotty Ireland, WSDOT
 - Co-Chair: Paul Mayo, Flatiron West, Inc.
 - **Shared Responsibilities:**
 - Provide leadership to the Team;
 - Lead the meetings;
 - Facilitate resolution of issues;
 - Oversee changes in membership;
 - Oversee changes in the Charter;
 - Identify Annual Goals;
 - Meet responsibilities as a Team member.
- **Team Member Roles and Responsibilities:**
 - WSDOT will consider team's recommendations and either incorporate it into the Design-Build program or give feedback on why recommendations are not incorporated, in full or in part.
 - All Team members agree to:
 - Provide specific expertise in Design-Build project delivery;
 - Review documents and comment promptly;
 - Attend all meetings possible and prepare appropriately;
 - Complete all necessary assignments prior to each meeting;

- Relay information to their groups (if any) after each meeting and gather information/feedback from their groups as practicable before each meeting;
 - Maintain a focus on solutions that benefit the mission and goals of the team as a whole.
- **Staff Resources:** On specific issues subject matter experts will be made available to review and discuss ideas with the team.
- **Core Values**
 - Accountability;
 - Innovation;
 - Professionalism;
 - Transparency;
 - Respectfulness;
 - Integrity.

Operating Guidelines

- **Communications**
 - Team members will receive and accept meeting requests through Outlook;
 - Draft Agendas will be prepared and distributed by WSDOT and will be sent out one week prior to the meeting;
 - Draft meeting minutes will be prepared and distributed by WSDOT and will be sent out for comment two week after the meeting;
 - Meeting minutes will be finalized and posted by WSDOT at least one week before the next meeting at:
<http://www.wsdot.wa.gov/Business/Construction/MeetingMinutes.htm>
 - An Action Item List will be included with the meeting minutes;
 - A conference call-in will be available from WSDOT if requested in advance. Team members are encouraged to attend the meetings in person;
 - WSDOT will provide hardcopies of the agenda at the meetings.
- **Meeting Times:** Every 6 weeks. 1:00- 4:00 pm
- **Conduct of Meetings**
 - Informed Member Alternates are acceptable and encouraged if a Team member cannot attend;
 - All cell phones will be turned off during the meetings;
 - Meetings will end with a clear understanding of expectations and action items;
 - Meetings are expected to be approximately three hours;
 - WSDOT will keep the meeting minutes. Comments from individual members will generally not be attributed and a verbatim record of the meeting will not be prepared.
- **Meeting Ground Rules**
 - Be honest and open during meetings;
 - Encourage a diversity of opinions on all topics;
 - Give everyone the opportunity for equal participation;
 - Be open to new approaches and listen to new ideas;
 - Use team time effectively; move on after reasonable discussion of issues;
 - Use this group as a safe forum to bring up issues related to DB.

WSDOT/AGC/ACEC Design-Build Team Membership

January, 2015

| Type | Member | Organization | Phone | E-mail |
|-------|---------------------------------|--------------------|--------------|--|
| O | Adams, Bob ² | Atkinson Constr. | 425-255-7551 | bob.adams@atkn.com |
| WSDOT | Barry, Ed | WSDOT-HQ DN | 206-805-2924 | barryed@wsdot.wa.gov |
| ACEC | Bauman, Jim | CH2MHill | 503-816-5499 | jim.bauman@ch2m.com |
| AGC | Bednarczyk, Marek | Graham Constr. | 206-729-8844 | marekb@grahamus.com |
| WSDOT | Boutwell, Jami | WSDOT-NWR 405 | 425-456-8504 | boutwej@wsdot.wa.gov |
| WSDOT | Boyd, Robyn | WSDOT-NWR 520 | 425-576-7066 | BoydRL@wsdot.wa.gov |
| ACEC | Campbell, Dan | GeoEngineers | 425-861-6094 | dcampbell@geoengineers.com |
| O | Carpenter, Jeff ² | WSDOT-HQ CN | 360-705-7821 | carpenj@wsdot.wa.gov |
| AGC | Christian, Janiece | PCL | 425-456-8504 | jchristian@pcl.com |
| WSDOT | Clarke, Brenden | WSDOT - OR | 360-357-2606 | clarkeb@wsdot.wa.gov |
| ACEC | Crowe, Eric | AECOM | 425-208-9083 | Eric.crowe@aecom.com |
| WSDOT | Eckard, Teresa | WSDOT-HQ CN | 360-705-7908 | eckardt@wsdot.wa.gov |
| FHWA | Ellis, Sue | FHWA | 360-753-9554 | susan.wllis@dot.gov |
| AGC | Harding, Steve | Dragado-USA | 206-567-9544 | shardin@dragados-USA.com |
| WSDOT | Hodgson, Lisa | WSDOT-NWR 405 | 425-420-9984 | hodgsol@wsdot.wa.gov |
| WSDOT | Ireland, Scotty ¹ | WSDOT-HQ CN | 360-705-7468 | irelans@wsdot.wa.gov |
| WSDOT | Jepperson, Omar | WSDOT-NWR 405 | 425-456-8610 | jepperO@wsdot.wa.gov |
| AGC | Larson, Phil | Atkinson | 425-508-6718 | phil.larson@atkn.com |
| AGC | Mayo, Paul ¹ | Flatiron Corp | 425-508-7713 | pmayo@flatironcorp.com |
| WSDOT | McNabb, Gil | WSDOT-NWR 405 | 425-456-8643 | mcnabbg@wsdot.wa.gov |
| WSDOT | Mizuhata, Julia | WSDOT-NWR 520 | 425-576-7059 | MizuhaJ@wsdot.wa.gov |
| WSDOT | Nielsen, Brian | WSDOT-NWR AWW | 206-805-5426 | nielseb@wsdot.wa.gov |
| ACEC | Ostfeld, Eric | Parsons | 206-643-4269 | Eric.ostfeld@parsons.com |
| ACEC | Patterson, Richard ³ | Bucklund & Taylor | 206-321-6655 | rdpn@b-t.com |
| AGC | Pindras, Greg | Max J. Kuney | 509-535-0651 | gregp@maxkuney.com |
| AGC | Vanderwood, Jerry | AGC Chief Lobbyist | 206-284-0061 | jvanderwood@agcwa.com |
| AGC | Young, Frank | Kiewit | 206-295-8735 | frank.young@kiewit.com |

¹ WSDOT / AGC DB Subcommittee Co-chairs

² WSDOT/AGC Co-lead

³ ACEC Lead

WSDOT/AGC/ACEC DESIGN-BUILD TEAM MEETING Meeting Minutes

March 5, 2015

1:00 pm to 4:00 pm

WSDOT Corson Ave Office, Conf. Rm. 119/121

6431 Corson Avenue South, Seattle, WA

No Teleconference line requested

Co-Chairs Scotty Ireland and Paul Mayo

AGENDA ITEMS:

1. Sign-In Sheet/Open the meeting / Introductions

2. Attendees:

| Type | Member | Organization | Phone | Email |
|-------|-----------------------|----------------|--------------|--|
| WSDOT | Barry, Ed | WSDOT-HQ DN | 206-805-2924 | barryed@wsdot.wa.gov |
| AGC | Bednarczyk, Marek | Graham Constr. | 206-729-8844 | marekb@grahamus.com |
| ACEC | Christianson, Janiece | PCL | 425-456-8504 | jchristian@pcl.com |
| WSDOT | Clarke, Brenden | WSDOT - OR | 360-357-2606 | clarkeb@wsdot.wa.gov |
| WSDOT | Eckard, Teresa | WSDOT-HQ CN | 360-705-7908 | eckardt@wsdot.wa.gov |
| WSDOT | Hodgson, Lisa | WSDOT-NWR 405 | 425-420-9984 | hodgsol@wsdot.wa.gov |
| WSDOT | Ireland, Scotty | WSDOT-HQ CN | 360-705-7468 | irelans@wsdot.wa.gov |
| WSDOT | Jepperson, Omar | WSDOT-NWR 405 | 425-456-8610 | jepperO@wsdot.wa.gov |
| AGC | Larson, Phil | Atkinson | 425-508-6718 | Phil.larson@atkin.com |
| AGC | Mayo, Paul | Flatiron Corp | 425-508-7713 | pmayo@flatironcorp.com |
| WSDOT | McNabb, Gil | WSDOT-NWR 405 | 425-456-8643 | mcnabbg@wsdot.wa.gov |
| WSDOT | Mizuhata, Julia | WSDOT-NWR 520 | 425-576-7059 | MizuhaJ@wsdot.wa.gov |
| ACEC | Eric Ostfeld | Parsons | 206-643-4269 | Eric.ostfeld@parsons.com |
| AGC | Pindras, Greg | Max J. Kuney | 509-535-0651 | gregp@maxkuney.com |
| AGC | Young, Frank | Kiewit | 206-295-8735 | frank.young@kiewit.com |

Scotty / Paul/All

- A. Safety Briefing
- B. Review and Update Sign-In Sheet
- C. Membership

Scotty reviewed the evacuation plan for the conference room, bathroom locations, sign-in sheet and charter endorsement that was circulating for initials. Introduced Rich Zeldenrust, WSDOT subject matter expert on section 2.13. Scotty also discussed membership changes: The replacement of Jim Bauman (Manish Rohila recommended); and dropping Robyn Boyd/Steve Harding from membership due to non-participation.

3. Review Previous Meeting Minutes

All

The January 22nd DRAFT meeting minutes were distributed to the Team on 2/3/2015. After incorporating comments, they were finalized and posted to the website on 2/11/2015. Meeting minutes are located at:

<http://www.wsdot.wa.gov/Business/Construction/MeetingMinutes.htm>

4. Old Business

- A. Endorsement of New Charter for the WSDOT/AGC/ACEC Design-Build Committee

Teresa/All

An endorsement sheet was circulated. Emails endorsing the charter were indicated on the sheet by "approved". Those attending that had not emailed their endorsement were asked to initial by their name, indicating endorsement of the new charter. The charter will go into effect and be posted on the WSDOT website following this meeting.

B. 2015 Topic/Meeting Date Completion- subject matter experts

Scotty/Paul/All

AGC/ACEC/WSDOT subject matter experts need to be filled in for chapter 2 sections and topics. Topics proposed will typically be led by the proposer.

5. New Business

A. Chapter 2 Technical Review Comments

a. Section 2.13 Bridge and Structures

Teresa/All

A short training session on TheHub occurred first. Teresa showed the group how to do in-line comments, and reply to others' comments.

Comments in this section were reviewed by the group. Comments were incorporated into the online document and are attached. There was some difficulty with the software that hindered using the electronic document to direct the comment discussions. It was suggested using a hard copy next time. It was also suggested having a two part review, one block of time for initial comments and then a second block of time for replies to comments. WSDOT subject matter expert will have the opportunity to reply to comments in advance of the meeting also.

b. Draft DB Bridge Design Manual

Richard Zeldenrust

Rich briefly discussed the development of the draft DB Bridge Design Manual by his group. Current status: the document is almost complete.

B. Design-Build Discussion Topics

a. Review new DBB- DBE language

Denys Tak

Denys talked about the current version of the DBE language. There are a few comments to be resolved with FHWA and the DBE language is expected to be finalized shortly. Denys gave a short overview, reviewed the four changes in the document that occurred after the initial draft; a) Removed credit for Utilizing First-Time DBE; b) Removed DBE Overhead Administration Expense Reimbursement; c) Added back Brokerage Firm (Will be credited toward meeting the contract DBE goal.) and d) Added back Joint Checking (WILL be allowed). Denys and Scotty emphasized that the Contractor will be responsible for meeting the "dollar amount" of their commitment at the time of bid, i.e. DBE% times bid price = \$\$\$ commitment. Contractor initiated changes that reduce the DBE participation will be the responsibility of the Contractor to make back up. Owner initiated changes that impact DBE participation are the owner's responsibility and will be resolved through the change order, possibly through paying a premium for adding a DBE (quotes), or shifting other work to a DBE. This may have a cost impact to the project- reasonableness must be considered by the owner.

b. Discuss Meeting Requirements for Compliance of DBE COA goal

Scotty/Paul/All

What can WSDOT incentivize meeting the DBE goal percentage (this is the owner's goal, contractor must meet commitment at time of bid (DBE% x Bid Price) on DB projects)? Include past performance in RFQ or RFP? Monitor progress/reporting? Submit options to discuss at next committee meeting. Teresa will have first draft of DB DBE language for review before next meeting, depending on when FHWA approval of DBB DBE language occurs.

c. Discuss a pre-qualification list for D-B teams on small projects

Eric Ostfeld/All

This item was moved to next meeting due to lack of time.

6. Other Items for Future Agendas

All

This is an opportunity for the Committee members to identify future topics to be discussed or reviewed.

No new topics introduced. Group needs to provide more topics at next meeting. AGC/ACEC/WSDOT needs to fill in subject matter experts.

7. Review and Expand Action Items

All

| Subject | Item Description | Due Date | Responsible | Status | Completion Date |
|------------------------------|---|----------------|---|--|-----------------|
| DB Small Projects | Provide copies of DB Small Project Pilot Program report if available | March 5, 2015 | WSDOT –Teresa | Completed | April 2, 2015 |
| Membership | Replace Jim Bauman (Manish Rohila recommended) | March 5, 2015 | ACEC – Richard | Completed | April 2, 2015 |
| Membership | Robyn Boyd/Steve Harding | March 5, 2015 | WSDOT – Scotty AGC-Paul | Completed | March 5, 2015 |
| Membership | Confirm Dan Campbell's membership | March 5, 2015 | ACEC-Richard | Completed | March 5, 2015 |
| TheHub | Can we print the comments? Turn off emails? Can an in-line comment be moved once made? | April 16, 2015 | ACEC-Eric Ostfeld | Completed- emailed to group | March 23, 2015 |
| Draft DB DBE Language | 1 st Draft of revised language – depending on finalization of DBB language with FHWA | April 16, 2015 | WSDOT- Teresa | Review before next meeting | |
| Membership | Replacement for Janiece Christianson (possible replacement Jon Harris) | April 16, 2015 | ACEC – Richard Patterson | Expected at April 16 th Meeting | |
| Meeting Topics | Additional meeting topics needed for future meetings | April 16, 2015 | All | Expected at April 16 th Meeting | |
| Chapter 2 Sections | Subject Matter Experts for WSDOT, AGC and ACEC need to be filled in on the Meeting/Topic sheet | April 16, 2015 | AGC – Paul ACEC–Richard Patterson WSDOT- Teresa | Expected at April 16 th Meeting | |

Scotty indicated that the report on the small DB Pilot Projects was available to be released.

8. Future Meetings:

All

Location: We will be meeting at the Corson Ave Project Office, **Conference Room 119/121 or 204 (see below)**

The address is:

6431 Corson Avenue South
Seattle, WA 98108

Future meeting dates:

April 16, 2015- **Conf Rm 119/121**
May 28, 2015- **Conf Rm 204**
July 9, 2015- **Conf Rm 119/121**
September 10, 2015- **Conf Rm 119/121**
October 22, 2015- **Conf Rm 119/121**
December 3, 2015- **Conf Rm 119/121**

Any planned changes to the programed meeting dates will occur at least one week prior to the meeting.

Conference Call-In: Consistency in representation is important to the Team's success. If a member is not able to attend, a conference call line will be made available for the meeting if requested in advance.

WSDOT/AGC/ACEC Design-Build Committee 2015 Meeting Topic Schedule

| Meeting Dates for 2015 | RFP Chapter 2 Sections Topics | Subject Matter Experts / Discussion Lead | Design-Build Discussion Topics | Discussion Topic Lead | Notes/Comments |
|------------------------|---|--|---|--|--|
| March 5, 2015 | 2.13 Bridges and Structures DBB-DBE section Draft | 1. Rich Zeldenrust – WSDOT 2. | A pre-qualification list for D-B teams on Small Projects. DBE requirements and good faith effort in Design-Build Meeting DBE Goal Requirements | 1. Denys Tak – WSDOT 2. Eric Ostfeld | 1. Section 2.6 was moved to April 16 due to the unavailability of WSDOT subject matter expert. 2. DBE spec moved to this meeting |
| April 16, 2015 | PDMSG 2.6 Geotechnical | 1. Jim Cuthbertson- WSDOT 2. | Small DB Pilot Projects Report Chapter 1 –DB DBE Section | 1. Denys Tak - WSDOT 2. Teresa Eckard - WSDOT | |
| May 28, 2015 | 2.22 Maintenance of Traffic (MOT) 2.10 Utilities and Relocation Agreements GT107(17) | | The relationship between the upset price and best value on WSDOT project | 1. 2. | 1. Evaluate progress – determine if July mtg is needed |
| July 9, 2015 | 2.12 Project Documentation 2.28 Quality Management Plan (QMP) | | Update on where WSDOT is on P3's. | 1. 2. | 1. Chapter 2.28.4.4.4 Handoff of the RFC document 2. Can WSDOT specify required QC staff on the project including duration and number? 3. Does industry feel there would be a value in investigating the feasibility of alternative approaches for construction quality assurance for smaller projects |
| September 10, 2015 | 2.18 Intelligent Transportation Systems 2.29 Maintenance During Construction | | Lessons Learned from AGC, ACEC and WSDOT | 1. 2. | |
| October 22, 2015 | 2.8 Environmental 2.11 Roadway | | | 1. 2. | |
| December 3, 2015 | 2016 Annual Goals and Topics | | | | |

Team Charter

WSDOT/AGC/ACEC Design-Build Committee

Team Mission

- **Vision** – A nationally recognized Design-Build Program that consistently delivers quality projects through positive coordination with Design-Builders, executed through competitive contracts that appropriately allocate risk, promote innovation and collaboration that ultimately benefits the citizens of Washington.
- **Mission** – Founded on strong WSDOT and Design-Builder relationships, further develop and maintain WSDOT's Design-Build Program based on the values of collaboration, innovation and continuous improvement that result in industry best practices.
- **Purpose** – To serve as a resource for establishing Design-Build policy, procedures and process improvement.

Team Goals

- **Seek Continuous Improvement** to WSDOT's Design-Build Program.
- **Develop and Maintain Excellent Communications** on WSDOT's Design-Build Program between WSDOT, AGC, ACEC and other interested parties.
- **Improve Understanding** of the value of Design-Build project delivery.
- **Encourage New Participants** in Design-Build project delivery from the design and construction industry.

Team Organization and Responsibilities

- **Membership** – Representatives include WSDOT HQ Design and Construction and project teams, the construction industry and the consulting engineer industry. Reference the attached membership table which will be updated at the start of each year.
- **Co-Chair Roles and Responsibilities:**
 - Co-Chair: Scotty Ireland, WSDOT
 - Co-Chair: Paul Mayo, Flatiron West, Inc.
 - **Shared Responsibilities:**
 - Provide leadership to the Team;
 - Lead the meetings;
 - Facilitate resolution of issues;
 - Oversee changes in membership;
 - Oversee changes in the Charter;
 - Identify Annual Goals;
 - Meet responsibilities as a Team member.
- **Team Member Roles and Responsibilities:**
 - WSDOT will consider team's recommendations and either incorporate it into the Design-Build program or give feedback on why recommendations are not incorporated, in full or in part.
 - All Team members agree to:
 - Provide specific expertise in Design-Build project delivery;
 - Review documents and comment promptly;
 - Attend all meetings possible and prepare appropriately;
 - Complete all necessary assignments prior to each meeting;

- Relay information to their groups (if any) after each meeting and gather information/feedback from their groups as practicable before each meeting;
 - Maintain a focus on solutions that benefit the mission and goals of the team as a whole.
- **Staff Resources:** On specific issues subject matter experts will be made available to review and discuss ideas with the team.
- **Core Values**
 - Accountability;
 - Innovation;
 - Professionalism;
 - Transparency;
 - Respectfulness;
 - Integrity.

Operating Guidelines

- **Communications**
 - Team members will receive and accept meeting requests through Outlook;
 - Draft Agendas will be prepared and distributed by WSDOT and will be sent out one week prior to the meeting;
 - Draft meeting minutes will be prepared and distributed by WSDOT and will be sent out for comment two week after the meeting;
 - Meeting minutes will be finalized and posted by WSDOT at least one week before the next meeting at:
<http://www.wsdot.wa.gov/Business/Construction/MeetingMinutes.htm>
 - An Action Item List will be included with the meeting minutes;
 - A conference call-in will be available from WSDOT if requested in advance. Team members are encouraged to attend the meetings in person;
 - WSDOT will provide hardcopies of the agenda at the meetings.
- **Meeting Times:** Every 6 weeks. 1:00- 4:00 pm
- **Conduct of Meetings**
 - Informed Member Alternates are acceptable and encouraged if a Team member cannot attend;
 - All cell phones will be turned off during the meetings;
 - Meetings will end with a clear understanding of expectations and action items;
 - Meetings are expected to be approximately three hours;
 - WSDOT will keep the meeting minutes. Comments from individual members will generally not be attributed and a verbatim record of the meeting will not be prepared.
- **Meeting Ground Rules**
 - Be honest and open during meetings;
 - Encourage a diversity of opinions on all topics;
 - Give everyone the opportunity for equal participation;
 - Be open to new approaches and listen to new ideas;
 - Use team time effectively; move on after reasonable discussion of issues;
 - Use this group as a safe forum to bring up issues related to DB.

WSDOT/AGC/ACEC Design-Build Team Membership

January, 2015

| Type | Member | Organization | Phone | E-mail |
|-------|---------------------------------|--------------------|--------------|--|
| O | Adams, Bob ² | Atkinson Constr. | 425-255-7551 | bob.adams@atkn.com |
| WSDOT | Barry, Ed | WSDOT-HQ DN | 206-805-2924 | barryed@wsdot.wa.gov |
| AGC | Bednarczyk, Marek | Graham Constr. | 206-729-8844 | marekb@grahamus.com |
| WSDOT | Boutwell, Jami | WSDOT-NWR 405 | 425-456-8504 | boutwei@wsdot.wa.gov |
| ACEC | Campbell, Dan | GeoEngineers | 425-861-6094 | dcampbell@geoengineers.com |
| O | Carpenter, Jeff ² | WSDOT-HQ CN | 360-705-7821 | carpenj@wsdot.wa.gov |
| AGC | Christian, Janiece | PCL | 425-456-8504 | jchristian@pcl.com |
| WSDOT | Clarke, Brenden | WSDOT - OR | 360-357-2606 | clarkeb@wsdot.wa.gov |
| ACEC | Crowe, Eric | AECOM | 425-208-9083 | Eric.crowe@aecom.com |
| WSDOT | Eckard, Teresa | WSDOT-HQ CN | 360-705-7908 | eckardt@wsdot.wa.gov |
| FHWA | Ellis, Sue | FHWA | 360-753-9554 | susan.wllis@dot.gov |
| WSDOT | Hodgson, Lisa | WSDOT-NWR 405 | 425-420-9984 | hodgsol@wsdot.wa.gov |
| WSDOT | Ireland, Scotty ¹ | WSDOT-HQ CN | 360-705-7468 | irelans@wsdot.wa.gov |
| WSDOT | Jepperson, Omar | WSDOT-NWR 405 | 425-456-8610 | jepperO@wsdot.wa.gov |
| AGC | Larson, Phil | Atkinson | 425-508-6718 | phil.larson@atkn.com |
| AGC | Mayo, Paul ¹ | Flatiron Corp | 425-508-7713 | pmayo@flatironcorp.com |
| WSDOT | McNabb, Gil | WSDOT-NWR 405 | 425-456-8643 | mcnabbg@wsdot.wa.gov |
| WSDOT | Mizuhata, Julia | WSDOT-NWR 520 | 425-576-7059 | MizuhaJ@wsdot.wa.gov |
| WSDOT | Nielsen, Brian | WSDOT-NWR AWV | 206-805-5426 | nielseb@wsdot.wa.gov |
| ACEC | Ostfeld, Eric | Parsons | 206-643-4269 | Eric.ostfeld@parsons.com |
| ACEC | Patterson, Richard ³ | Bucklund & Taylor | 206-321-6655 | rdpn@b-t.com |
| AGC | Pindras, Greg | Max J. Kuney | 509-535-0651 | gregp@maxkuney.com |
| AGC | Vanderwood, Jerry | AGC Chief Lobbyist | 206-284-0061 | jvanderwood@agcwa.com |
| AGC | Young, Frank | Kiewit | 206-295-8735 | frank.young@kiewit.com |

- ¹ WSDOT / AGC DB Subcommittee Co-chairs
- ² WSDOT/AGC Co-lead
- ³ ACEC Lead

Consolidated Comments for DB Chapter 2, Section 2.13 as of 3/24/15

With some additional comments and 3/5/15 Meeting Responses.

Rich Zeldenrust

2.13.4.1, page 4, line 39: Change "2.5.6.2 of" to "2.5.6.2 and the criteria for minimum superstructure depths listed in Table 2.5.2.6.3-1 of"

2.13.2.1, page 4, line 39: Change "for deflection" to "for maximum deflection"

2.12.2.1, page 3, line 15: Change "to obtain" to "for obtaining".

(All Incorporated)

Phil Larson

2.13-9 line 38 - Unclear to the requirement.

Mar 5, 2015 3:12 PM – Meeting Responses

This is unclear on performance requirements.

Is there a better way to identify the size of the pocket?

2.13-11 line 23 - Covered on 2.13-9 line 39

2.13-14 line 40 - Type A NW requires 80 mph per BDM with pressure of 9 psf. Standard Plan has designs up to 21 psf.

2.13-15 lines 33-37 - Wording is confusing

2.13-15 lines 44 and 45 "structural bolted splices" Redundant per the BDM.

General Comments

1. Consider developing standard language for Bridge Widening.
2. Consider developing standard language for Bridge Monitoring.

Eric Crowe

General Comments

1. My understanding is that this section has been previously reviewed by this committee. Have the comments that were generated at that time incorporated into this document.

2. There are many sections that are specific to particular bridges - I would think that the majority of this information could be included in standard language for example Bridge Widening, Seismic Analysis, bridge barriers etc.

Frank Young

Para 2.13.3 page 3, line 28 and 34

Minimum requirement of SLE experience of 10 years. There is no correlation between ability and years' experience. Some of the better bridge designers in North America don't even have SE Stamps.

2.13.4.1 Page 4, lines 31 thru 34

Prohibiting the use of T's and precast slabs. Suggest the WSDOT look into the use of these elements; they are used at several other DOT's.

Mar 5, 2015 3:07 PM – Meeting Responses

2.13.4.1.6, page 8 – Frank - Why using?

Rich - WSDOT experience is it performs better in our environment.

2.13.4.1.9 Page 10, line 29, 30

Spec requires the removal of all form/false work. This isn't practical in shallow depth boxes. Suggest that WSDOT allow form/false work to be left in place in boxes with interior box dimensions of less than 6' high.

2.13.4.1.12 page 11, line 32 and 33

Remove prescriptive prohibition/ban on use of 'stay in place' deck panels.

2.13.7.2.1 Page 20

Confirm that the DB does not need EOR review/approval for items covered in 2.13.7.2.1

Tim Moore

Section 2.13.4 Line 41 Add

Railroad minimum vertical clearance shall be 23'-6".

Mar 5, 2015 2:27 PM – Meeting Responses

Should be part of railroad section - may want to leave in standard language and gray out

Section 2.13.4.1 Lines 29 to 32

Restriction of deck bulb-tee, tri-beam, double tee, pre-cast slabs is due to the welded tab and grouted keyway detail. This connection does not perform well for high ADT/ADTT state routes. Cities and counties utilize these bridge types with some success but the connection fail and reflective cracking extends through the CIP deck and reduces the bridge deck life.

If the D-B Project satisfies a low ADT/ADTT route, the inclusion of these bridge types should be RFP specific.

Mar 5, 2015 2:50 PM – Meeting Responses

Look at providing only what is permitted and let Design-Builder use ATC's for exceptions

Open up list (project specific)

Section 2.13.4.1.9 Page 10 Line 24 to 25 Bridge Inspection and Maintenance Access

This section requires that the interior of all cells of steel and concrete box girders be accessible for inspection and maintenance. Utility access, earthquake restrainer inspection, web shear, bottom of bridge deck condition requires all formwork to be removed. Shallow box girders may make this activity impractical and if shallow box girders are anticipated, specific inspection requirements may modify the requirement.

Mar 5, 2015 3:17 PM- Meeting Responses

Comment in template to list instances where they could remain

Section 2.13.4.1.12 Pg. 11 Line 24-25

Provision should match Std Spec 6-02.3(17) - On bridge decks, forms designed to stay in place made of steel or precast concrete panels shall not be used. WSDOT inspects the bridge deck from beneath and stay-in-place forms restrict the ability to inspect. Galvanized steel pan forms create a hazard and obstruct the ability to inspect. Precast concrete panels produce reflective cracking through the CIP deck section reducing the bridge deck life.

Section 2.13.4.1.14 Bridge Barriers Pg. 12 Line 5 to 10

Project shall determine if bicyclists are to be accommodated (WSDOT Policy on Bridges is a 54" high barrier/railing). AASHTO accepts 42" for pedestrians/bicyclists).

Section 2.13.7.2 Pg. 20 Line 7

Add Barlist

Design-Build projects Released-for-Construction drawings are absent a traditional barlist. Reinforcing bar supplier is producing cut sheets which should in-turn be approved by the EOR.

Eric Ostfeld

Page 13 Line 25, Section 2.13.4.3 - quantify "incorporate mitigation measures to avoid conflicts".

Page 11 Line 17, Section 2.13.4.1.12 - What is the goal of a 7.5" minimum thickness? Use performance criteria as requirement.

Page 10 line 33 Section 2.13.4.1.10 - goal is limit the perceptible differential settlement? Use performance criteria to allow innovation and warranty to protect WSDOT.

Mar 5, 2015 3:23 PM – Meeting Responses

May be other solutions?

Rich - If you can get buyoff - may not need to do this

Warranty?

Page 10 Line 16, Section 2.13.4.1.9 - Specify watts or lumens. No incentive for a Design-Builder to look at LED or other cost saving options as the spec is written here.

Mar 5, 2015 3:15 PM – Meeting Responses

Good point - move to lighting section

Page 8 Line 29 Section 2.13.4.1.5 - limiting innovation by precluding other girder types. Require that codes be followed, experienced engineers do the design, and implement LCCA criteria.

Mar 5, 2015 3:02 PM – Meeting Responses

Have had exception through ATC's.

Comment is similar to the previous comments to focus on performance requirements to enhance innovation

Page 6 Line4 Section 2.13.4.1.1.2.2 - identify what the goal is rather than specify that it must be constructed as a widening of the existing structure.

Page 4 Line 37/38, Section 2.13.4.1 - why?

Mar 5, 2015 2:56 PM – Meeting Responses

Rich- has worked for constructability, life cycle, deck replacement/maint

Page 4 Line 25, Section 2.13.4.1 -if standards are followed and the design life is met, why restrict the types of structures considered? Incorporate a LCCA if maintenance is a concern.

Page 4 Line 18, Section 2.13.4.1- already covered under mandatory standards.

Mar 5, 2015 2:39 PM – Meeting Responses

Is project specific- may not be precluded based on project specific info (choose based on ADT and other factors). Bridge office is the author and will have input.

Line 14 AASHTO Guide Spec....

Mar 5, 2015 2:33 PM – Meeting Responses

Redundant with 2.13.4.1.1

Page 3 Line 25, Section 2.13.3- years of experience is somewhat arbitrary compared to real experience. Suggest an evaluation of personnel based on relevant experience.

Mar 5, 2015 2:23 PM – Meeting Responses

Leave it and make an exception with an ATC. - Frank and Paul

Page 2 Line 6, Section 2.13.2-amount of mandatory standards is inversely proportional to innovation. Consider identifying items that are 'must haves' and leaving the rest open. Would likely be job specific.

Mar 5, 2015 1:55 PM – Meeting Responses

Creates a baseline - changes during ATC and after for innovation. Paul

Line 7 "Special Provisions

Mar 5, 2015 2:02 PM – Meeting Responses

What is included in Appendix B - general dump of special provisions- Only what is included in the appendix is referenced in this section.

Page 1 Line 23, Section 2.13.1- general language adds little value. Specific items that need special attention should be addressed.

Mar 5, 2015 1:47 PM – Meeting Responses

Intent is this is a list of items that may be associated with this section

Isn't needed unless project specific- Eric

If I was the owner, I would like to use it in to cover description of SOW- Paul

WSDOT look at the description - what is specific to this section?

Gives a heads on items and what mandatory standards apply to -Omar

2012 AGC Comments

2.13.1.2 Page 1 line 37 The design builder shall use the most current version at the time the RFP was issued, or the WSDOT authorized edition as noted below.

Mar 5, 2015 1:51 PM – Meeting Responses

Decline- Already covered in 2.2

2.13.1 Page 1, line 30 ... showing the existing bridges are located... change to ... the existing bridges and other Structures...

Mar 5, 2015 1:49 PM – Meeting Responses

Change accepted

2.13.2 Page 2 Line 8 Add WSDOT before Standard Specification

Mar 5, 2015 1:56 PM- Meeting Responses

Declined -does not add value

WSDOT/AGC/ACEC DESIGN-BUILD TEAM MEETING Meeting Minutes

April 16, 2015

1:00 pm to 4:00 pm

WSDOT Corson Ave Office, Conf. Rm. 119/121

6431 Corson Avenue South, Seattle, WA

No Teleconference line requested

Co-Chairs Scotty Ireland and Paul Mayo

AGENDA ITEMS:

Attendees

| Type | Member | Organization | Phone | Email |
|-------|-------------------|-------------------|--------------|--|
| WSDOT | Barry, Ed | WSDOT-HQ DN | 206-805-2924 | barryed@wsdot.wa.gov |
| AGC | Bednarczyk, Marek | Graham Constr. | 206-729-8844 | marekb@grahamus.com |
| WSDOT | Boutwell, Jami | WSDOT-NWR 405 | 425-456-8504 | boutweij@wsdot.wa.gov |
| ACEC | Campbell, Dan | GeoEngineers | 425-861-6094 | dcampbell@geoengineers.com |
| WSDOT | Clarke, Brenden | WSDOT - OR | 360-357-2606 | clarkeb@wsdot.wa.gov |
| ACEC | Crowe, Eric | AECOM | 425-208-9083 | Eric.crowe@aecom.com |
| WSDOT | Eckard, Teresa | WSDOT-HQ CN | 360-705-7908 | eckardt@wsdot.wa.gov |
| AGC | Harris, Jon | PCL | 425-394-4231 | jharris@pcl.com |
| WSDOT | Hodgson, Lisa | WSDOT-NWR 405 | 425-420-9984 | hodgsol@wsdot.wa.gov |
| WSDOT | Ireland, Scotty | WSDOT-HQ CN | 360-705-7468 | irelans@wsdot.wa.gov |
| WSDOT | Jepperson, Omar | WSDOT-NWR 405 | 425-456-8610 | jepperO@wsdot.wa.gov |
| AGC | Larson, Phil | Atkinson | 425-508-6718 | Phil.larson@atkin.com |
| AGC | Mayo, Paul | Flatiron Corp | 425-508-7713 | pmayo@flatironcorp.com |
| WSDOT | McNabb, Gil | WSDOT-NWR 405 | 425-456-8643 | mcnabbg@wsdot.wa.gov |
| WSDOT | Mizuhata, Julia | WSDOT-NWR 520 | 425-576-7059 | MizuhaJ@wsdot.wa.gov |
| AGC | Pindras, Greg | Max J. Kuney | 509-535-0651 | gregg@maxkuney.com |
| ACEC | Rohila, Manish | Rohila Consulting | 425-246-1749 | manish@rohilaconsulting.com |
| AGC | Young, Frank | Kiewit | 206-295-8735 | frank.young@kiewit.com |

Guests

| | | | | |
|-------|-----------------|------------|--------------|--|
| WSDOT | Jim Cuthbertson | WSDOT- Geo | 360-709-5452 | cuthebj@wsdot.wa.gov |
| WSDOT | Jim Struthers | WSDOT- Geo | 360-709-5409 | struthj@wsdot.wa.gov |
| WSDOT | Greg Bell | WSDOT-OEO | 360-705-7086 | bellg@wsdot.wa.gov |

1. Sign-In Sheet/Open the meeting / Introductions

Scotty / Paul/All

- Safety Briefing
- Review and Update Sign-In Sheet
- Membership

Scotty reviewed the safety briefing, and new members Jon Harris and Manish Rohila introduced themselves to the committee. WSDOT SME's were Jim Cuthbertson and Jim Struthers for DB Chapter 2 Section 2.6, Phil Larson for AGC and Dan Campbell for ACEC.

Teresa warned the group that she was updating the old meeting requests- all future meetings will be in 119/121 except the May meeting, so people will need to accept the updates. She will also try to delete old members that are in the earlier meeting requests.

2. Review Previous Meeting Minutes

All

The March 5th DRAFT meeting minutes were distributed to the Team on 3/31/2015. After incorporating comments, they were finalized and posted to the website on 4/9/2015. Meeting minutes are located at:

<http://www.wsdot.wa.gov/Business/Construction/MeetingMinutes.htm>

There were no changes to the meeting minutes.

3. Old Business

A. 2015 Topic/Meeting Date Completion- subject matter experts

Scotty/Paul/All

Teresa filled the proposed and confirmed SME's and Paul Mayo and Richard Patterson to follow up with AGC and ACEC SME's.

B. Chapter 2 Section 2.13 draft template

Teresa/All

There was discussion on the items the committee did not get to in the last meeting. Teresa is going to try to resolve these items with Rich Zeldenrust and only bring something back to the committee if it needs discussion.

C. Design-Build Discussion Topics

1. Review 1st Draft DB-DBE Language

Teresa/Denys/All

The draft had been sent out the previous day. Teresa gave highlights on how this was being incorporated into DB DBE language:

- a. COA DBE's must be contracted by a deadline (design substantially complete)
- b. Participation of DBE's in design and construction encouraged
- c. Past performance meeting DBE goals will be considered (scored) as part of the RFQ.
- d. Required DBE performance plan will include a baseline for reporting throughout the project

2. Discuss how to meet requirement for compliance of DBE COA commitment

Scotty/Paul/All

Paul Mayo suggested checking with sound transit subcontracting plan. There was a lot of discussion on these items. Concern about locking in DBE subcontractors at suggested milestone. Talk about GFE in performance plan – Goal will be a COA- Some unconcerned about meeting goal. Reporting requirement needs to be thought out and how to evaluate past performance. The 1st draft is being reviewed by WSDOT OEO, the DBE Advisory Committee and FHWA (high level only) concurrently with the WSDOT/AGC/ACEC DB Committee. Teresa will get the document posted to TheHub, comments due May 8th. Comments from all groups will be consolidated to generate draft #2.

4. New Business

A. Discuss Review Process

Teresa/All

Teresa discussed the process with the group (see attached revised process with flow chart). Based on input, using redlines for review and resolution in the meeting works. The SME's being able to comment in advance helps as well.

B. Chapter 2 Technical Review Comments

1. Section 2.6 Geotechnical

Teresa/All

The group worked through all of the comments in the meeting, with some follow up action items noted. Teresa to set up a Lync meeting with Jim Cuthbertson, Jim Struthers and Dan Campbell to resolve section 2.6.9.5 Soil Properties for Design (meeting scheduled for April 30th). See attached PDF with redlines and resolution from meeting.

C. Update on Transportation Funding Package

Paul/Scotty

Paul gave an update on the Transportation Funding Package. House and Senate have passed different funding packages and need to resolve differences. Paul expects it to pass, but not until special session.

D. Small Design-Build Pilot Project Report

Teresa/All

The Report had minor corrections, will be reposted when corrections made. Teresa did not consider the changes significant and did not affect content of the report.

5. Future Meeting Highlights

A. Discuss Project Delivery Method Selection Guidance (PDMSG)

Scotty

Scotty discussed the WSDOT group working on the PDMSG. Expect to be able to bring it to the committee to discuss at the next meeting, although it will still be a draft.

Contract Provisions formatting (in published RFP)

Teresa

WSDOT/AGC/ACEC

Design-Build Team Meeting Agenda

Teresa asked the group to think about the formatting of the DB documents. While we develop the templates, we would like to use font color to indicate language that is always in a section, language that is optional be pre-approved, and language that is project specific for internal WSDOT use. Would it be beneficial or a hindrance for proposers to have this information differentiated? Have they seen this with other DOT DB projects? How did they do it? This will be discussed in the next meeting.

6. Review and Expand Action Items

All

| Subject | Item Description | Due Date | Responsible | Status | Completion Date |
|--------------------------------------|--|----------------|--|-------------------------------------|-----------------|
| Draft DB DBE Language | 1 st Draft of revised language – depending on finalization of DBB language with FHWA | April 14, 2015 | WSDOT- Teresa | Completed | April 15, 2015 |
| Draft DB DBE Language | Committee Review Draft DBE language on TheHub | May 8, 2015 | All | In progress | |
| Chapter 2 Sections | Subject Matter Experts for WSDOT, AGC and ACEC need to be filled in on the Meeting/Topic sheet | April 16, 2015 | AGC – Paul ACEC–Richard Patterson WSDOT- Teresa | Still in progress | |
| Chapter 2 Sections | Committee Review Sections 2.22 and 2.10 on TheHub. DB Chapter 1 Section 1-07.17 will be emailed for reference. | May 21, 2015 | All | In progress | |
| Review Process | Revise committee review process for Chapter 2 sections and add flow chart | April 30, 2015 | WSDOT- Teresa | To go out with Meeting Minutes | |
| Small DB Pilot Project Report | Report Corrected and Reposted | May 8, 2015 | WSDOT- Teresa | Need to finish CMS training to post | |

7. Future Meetings:

All

Location: We will be meeting at the Corson Ave Project Office, **Conference Room 119/121 or 204.**

The address is:

6431 Corson Avenue South
Seattle, WA 98108

Future meeting dates:

May 28, 2015 - **Conference Room 204**
July 9, 2015 - **Conference Room 119/121**
September 10, 2015 - **Conference Room 119/121**
October 22, 2015 - **Conference Room 119/121**
December 3, 2015 - **Conference Room 119/121**

Any planned changes to the programed meeting dates will occur at least one week prior to the meeting.

Conference Call-In: Consistency in representation is important to the Team's success. If a member is not able to attend, a conference call line will be made available for the meeting if requested in advance.

WSDOT/AGC/ACEC Design-Build Committee 2015 Meeting Topic Schedule

| Meeting Dates for 2015 | RFP Chapter 2 Sections Topics | Subject Matter Experts / Discussion Lead | Design-Build Discussion Topics | Discussion Topic Lead | Notes/Comments |
|------------------------|--|--|--|--|--|
| March 5, 2015 | 1. 2.13 Bridges and Structures 2. DBB-DBE section Draft | 1. Rich Zeldenrust – WSDOT 2. D. Tak / S. Ireland | 3. DBE requirements and good faith effort in Design-Build 4. Meeting DBE Goal Requirements | 3. WSDOT - Denys Tak 4. WSDOT - Denys Tak | |
| April 16, 2015 | 1. 2.6 Geotechnical | 1. WSDOT - Jim Cuthbertson /Jim Struthers; ACEC – Dan Campbell AGC - Phil Larson | 2. Small DB Pilot Projects Report 3. Chapter 1 – DB DBE Section 1 st Draft | 2. WSDOT – Teresa Eckard 3. WSDOT – Denys Tak | |
| May 28, 2015 | 1. 2.22 Maintenance of Traffic (MOT) 2. 2.10 Utilities and Relocation Agreements and GT1-07(17) | 1. WSDOT - Bonnie Nau ACEC - AGC - Mannie Barnes 2. WSDOT john, Collins, Pete Townsend and Ahmer Nizam ACEC - AGC - Paul Mayo | 3. A pre-qualification list for D-B teams on Small Projects 4. Project Delivery Method Selection Guidance (PDMSG) | 3. ACEC - Eric Ostfeld 4. WSDOT – Teresa Eckard | 1. Evaluate progress – determine if July mtg is needed 4. Discuss WSDOT's new PDMSG implementation. 5. Note – Dan Galvin cannot comment directly |
| July 9, 2015 | 1. 2.12 Project Documentation 2. 2.28 Quality Management Plan (QMP) | 1. WSDOT – Ed Barry ACEC - AGG - Chris Williams 2. WSDOT - Randy Mawdsley; ACEC - AGC - Jeremy Mason | 3. The relationship between the upset price and best value on WSDOT project | 3. AGC – Frank Young | 2. Chapter 2.28.4.4.4 a. Handoff of the RFC document b. Can WSDOT specify required QC staff on the project including duration and number? c. Does industry feel there would be a value in investigating the feasibility of alternative approaches for construction quality assurance for smaller projects |
| September 10, 2015 | 1. 2.18 Intelligent Transportation Systems 2. 2.29 Maintenance During Construction | 1. WSDOT - Greg Leege; ACEC – AGC - Mike Woeck 2. WSDOT - Mark Renshaw; ACEC – AGC – Mannie Barnes | 3. Update on where WSDOT is on P3's Lessons Learned from AGC, ACEC and WSDOT | 3. WSDOT – ACEC - AGC - | |
| October 22, 2015 | 1. 2.8 Environmental 2. 2.11 Roadway | 1. WSDOT – Eric Wolin ACEC - AGC - Mike Shaw 2. WSDOT – 3. ACEC – 4. AGC – Phil Larson | | | |
| December 3, 2015 | 1. 2016 Annual Goals and Topics | 1. WSDOT – Scotty Ireland ACEC – Richard Patterson AGC – Paul Mayo | | | |

RFQ- Revised DBE Language in subsections (4/14/15)

5.6 DISADVANTAGED, MINORITY, AND WOMEN-OWNED BUSINESS ENTERPRISES PARTICIPATION

WSDOT encourages participation in all of its contracts by Disadvantaged, Minority, and Women-Owned Business Enterprises (D/M/WBE) as certified by the WSDOT Office of Minority and Women's Business Enterprises (OMWBE) and defined in WAC 326-02-030. Details of the D/M/WBE program will be provided in the RFP.

The Disadvantaged Business Enterprise (DBE) requirements of 49 CFR Part 26 apply to this Contract. The DBE goal will be provided in the RFP. The successful Proposer will need to meet or provide documentation of good faith effort to meet this goal.

Proposers may contact OMWBE to obtain information on certified D/M/WBE firms. Information about certification as a D/M/WBE may be obtained by contacting OMWBE at (360) 753-9693.

7.1.1 SOQ ORGANIZATION AND SCORING

The Submitter shall organize the SOQ using the following Section headings, order of documents, and maximum number of pages:

Table 7.2 SOQ ORGANIZATION AND SCORING

| Section | Section Title and Required Information | Maximum Pages | Points Available |
|----------------|--|----------------------|-------------------------|
| 1 | Introduction Letter | 1 | Pass/Fail |
| 2 | Key Personnel (550) | 4 | |
| | Project Manager | | 300 |
| | Design Manager | | 150 |
| | Construction Manager | | 100 |
| 3 | Major Participants (450) | 4 | |
| | Criteria 1 | | 200 |
| | Criteria 2 | | 100 |
| | Criteria 3 | | 100 |
| | Criteria 4 | | 50 |
| Appendix A | Legal | As required | Pass/Fail |
| Appendix B | Financial | As required | Pass/Fail |
| Appendix C | Form A: Acknowledgment of Receipt of Addenda | 1 | Pass/Fail |
| Appendix C | Form B1: Organizational Conflict of Interest Certification | 1 | Pass/Fail |
| Appendix C | Form B2: Organizational Conflict of Interest Disclosure Form | As required | Pass/Fail |
| Appendix D | Resumes | As required | |
| | Total | | 1000 |

7.6.2 EVALUATION CRITERIA

The Major Participants will be evaluated on demonstrated project experience and performance. For each Major Participant, the Submitter shall relate relevant project experience for each of the applicable criteria:

- 1) *** Description of Criteria 1*** (Ex.) Experience with the design and construction of roadway projects on an accelerated schedule while maintaining traffic flow 24 hours per day within the Work zone.
- 2) *** Description of Criteria 2*** (Ex.) Experience designing and constructing fish passable structures utilizing stream simulation criteria.
- 3) *** Description of Criteria 2*** (Ex.) Experience of the proposed Major Participants, listed in Categories A, B, C, or D in Section 5.1, successfully working together as an integrated team.
- 4) Experience with achieving DBE goals on federally funded projects with WSDOT and other public agencies.

Submitters will be scored on how their experience on previous projects, related to the bulleted criteria above, prepares their team for success on this Project. Demonstrated experience on projects of similar scope and complexity is preferred. Submitters shall describe how skills and experience gained on listed projects will be translated to the staff committed to delivering this Project.

Maximum points available for each criterion are listed in Table 7.2.

ITP- Revised DBE Language (4/14/15)

ADD Defined Terms

DBE Commitment – The dollar amount the Design-Builder indicates they will be subcontracting to be applied towards the DBE Condition of Award Goal as shown on the DBE Utilization Certification Form when a subcontract is executed for each DBE Subcontractor and in the DBE Performance Plan submitted with the Design-Builder’s Proposal. This DBE Commitment amount will be incorporated into the Contract and shall be considered a Contract requirement. Any changes to the DBE Commitment shall require WSDOT’s approval.

DBE Condition of Award (COA) Goal – An assigned numerical percentage of the proposal amount of the Contract. This is the minimum amount that the Bidder must commit to by submission of the DBE Performance Plan including Good Faith Effort (GFE). The DBE COA Goal will also be applied to change orders associated with this Contract.

1.3.8 DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION REQUIREMENTS

The Disadvantaged Business Enterprise (DBE) requirements of 49 CFR Part 26 apply to this Project. The following section describes the DBE Performance Plan which the Proposer shall submit in Appendix A as part of a responsive Proposal.

The DBE Performance Plan is a pass/fail factor. Failure to achieve a “pass” rating on this pass/fail factor shall result in the Proposal being declared non-responsive and the Proposer being disqualified.

1.3.8.1 DBE GOALS

WSDOT has established a DBE goal in the amount of ***%*** percent.

1.3.8.2 DBE PERFORMANCE PLAN

To be eligible for award of the Contract, each Proposer must submit a DBE Performance Plan as part of a responsive Proposal. The DBE Performance Plan shall reflect the Design-Builder’s good faith efforts to achieve the DBE COA goal, and is considered a condition for the selection of a successful Proposer.

To receive a “pass” rating on this factor, the DBE Participation Plan must satisfy the following requirements:

- 1) The DBE Performance Plan shall include a detailed description of the Design-Builder’s good faith efforts for achieving the DBE COA goal.
- 2) The DBE Performance Plan shall document how the Proposer will obtain sufficient DBE participation to meet the DBE COA goal.
- 3) The DBE Performance Plan shall provide the planned DBE participation utilization including expected DBE COA payments and contract commitments by month over the duration of the project.
- 4) WSDOT encourages participation of DBE firms in both the design and construction portions of this contract.

Good faith efforts include, but are not limited to, the following:

- A. Attendance at any pre-solicitation or pre-bid meetings scheduled by WSDOT to inform DBEs of contracting, subcontracting or material supply opportunities available on the Project;
- B. Contacting local tribes and Tribal Employment Rights Offices in sufficient time to allow the enterprises to participate effectively in subcontracting or supply opportunities;
- C. Selection of specific, economically-feasible Work units of the Project to be performed by DBEs in order to increase the likelihood of participation by DBEs, even if the Proposer prefers to perform the Work units as the Design-Builder;
- D. Advertising in general circulation, minority trade association, and trade-oriented, women-focused publications, that focus on subcontracting or supply opportunities;
- E. Providing written notice to a reasonable number of specific DBEs, identified from the OMWBE Directory of Certified Firms for the selected subcontracting or material supply Work, in sufficient time to allow the enterprises to participate effectively;
- F. Follow-up of initial solicitations by contacting the DBEs to determine with certainty whether or not they are interested. Documentation of this kind of action shall include the information outlined below:
 - 1) The names, addresses and telephone numbers of DBEs who were contacted; the dates of initial contact; and whether initial solicitations were followed-up to determine with certainty whether or not the DBEs were interested;
 - 2) A description of the information provided to the DBEs regarding the plans, specifications and estimated quantities for portions of the Work to be performed;
 - 3) Documentation of each DBE contacted but rejected, and the reasons for that rejection;
 - 4) Providing, to interested DBEs, adequate information about the plans, specifications, and requirements for the selected subcontracting or material supply Work;
 - 5) Negotiating in good faith with the DBEs and not, without justifiable reason, rejecting as unsatisfactory bids that are prepared by any DBE;
 - 6) Advertising and making efforts to obtain DBE participation that were reasonably expected to produce a level of participation sufficient to meet the DBE goal;
 - 7) Making any other efforts to obtain DBE participation that were reasonably expected to produce a level of participation sufficient to meet the DBE goal;
 - 8) Using the services of minority community organizations; minority contractor groups; local, state and federal minority business assistance offices; other organizations identified by WSDOT; and advocates for disadvantaged, minority and women-owned businesses who provide assistance in the recruitment and placement of disadvantaged, minority and women-owned business enterprises; and
 - 9) Using DBE Supportive Services by contacting WSDOT's Office of Equal Opportunity at (360) 705-7090.

Evaluation of good faith efforts and crediting DBE participation will be conducted pursuant to 49 CFR part 26.

Revised DBE Language 4/6/2015

1-01.2(1) ASSOCIATIONS AND MISCELLANEOUS

1-01.3(1) DEFINED TERMS

DBE Abbreviations and Definitions

Broker— A business firm that provides a bona fide service, such as professional, technical, consultant or managerial services and assistance in the procurement of essential personnel, facilities, equipment, materials, or supplies required for the performance of the Contract; or, persons/companies who arrange or expedite transactions.

Substantially Completed Design Milestone – The Milestone established in the RFP as “Completed Design” whereby the substantial portion of the design of the project is complete and when all COA DBE subcontracts must be executed.

Comment [ET1]: PE has a NLT milestone date in the RFP, Design-Builder can propose an earlier milestone in the proposal/contract which will be the final milestone date.

DBE – Disadvantaged Business Enterprise

DBE Performance Plan - The plan submitted by Design-Builder with its Proposal pursuant to the Instructions to Proposers.

DBE Progress Reports - The meaning set forth in Section 1-07.11(11).

Disadvantaged Business Enterprise (DBE) – A business firm certified by the Washington State Office of Minority and Women’s Business Enterprises, as meeting the criteria outlined in 49 CFR 26 regarding DBE certification.

Commercially Useful Function (CUF)

49 CFR 26.55(c)(1) defines commercially useful function as: *“A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. To determine whether a DBE is performing a commercially useful function, you must evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors.”*

DBE Commitment – The dollar amount the Design-Builder indicates they will be subcontracting to be applied towards the DBE Condition of Award Goal as shown in the DBE Performance Plan submitted with the Design-Builder’s Proposal. This DBE Commitment amount will be incorporated into the Contract and shall be considered a Contract requirement. Any changes to the DBE Commitment shall require WSDOT’s approval.

DBE Condition of Award (COA) Goal – An assigned numerical percentage of the proposal amount of the Contract. This is the minimum amount that the Bidder must commit to by submission of the DBE Performance Plan including Good Faith Effort (GFE). The DBE COA Goal will also be applied to change orders associated with this Contract.

DBE Directory of Certified Firms – A publication listing all Minority, Women, and Disadvantaged Business Enterprises currently certified by the Washington State Office of Minority and Women’s Business

Revised DBE Language 4/6/2015

Enterprises (OMWBE). The on-line Directory is available to Design-Builders for their use in identifying and soliciting interest from DBE firms whose participation on a contract may be counted toward achievement of the assigned DBE COA Goal.

Description of Work – Specific descriptions of work that the DBE is certified to perform, as identified in the OMWBE Directory of Certified Firms, under the DBE’s profile page.

Good Faith Efforts – Efforts to achieve the DBE COA Goal or other requirements of this part which, by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the program requirement.

Manufacturer (DBE) – A DBE firm that operates or maintains a factory or establishment that produces on the premises the materials, supplies, articles, or equipment required under the Contract. A DBE Manufacturer shall produce finished goods or products from raw or unfinished material or purchase and substantially alters goods and materials to make them suitable for construction use before reselling them.

Regular Dealer (DBE) – A DBE firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials or supplies required for the performance of a Contract are bought, kept in stock, and regularly sold to the public in the usual course of business. To be a Regular Dealer, the DBE firm shall engage in, as its principal business and in its own name, the purchase and sale of the products in question. A Regular Dealer in such items as steel, cement, gravel, stone, and petroleum products need not keep such products in stock if it owns or operates distribution equipment. Brokers and packagers shall not be regarded as Regular Dealers within the meaning of this definition.

1-07.11(11) DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION

The Disadvantaged Business Enterprise (DBE) requirements of 49 CFR Part 26 apply to this Contract.

DBE Participating Goal

The WSDOT has established a DBE COA goal in the amount of: *****DBE%*****.

Comment [ET2]: Fill in DBE %

DBE Eligibility/Selection of DBEs

A Directory of Certified DBE Firms denoting the Description of Work the DBE Contractors are certified to perform is available at: www.omwbe.wa.gov/certification/index.shtml.

The directory provides plain language on the Description of Work that the listed DBE’s have been certified by the Office of Minority and Women’s Business Enterprises (OMWBE) to perform.

Crediting DBE Participation

Joint Venture

When a DBE performs as a participant in a joint venture, only that portion of the total dollar value of the Contract equal to the distinct, clearly defined portion of the Work that the DBE performs with its own forces shall be credited.

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DBE Design-Builder

A DBE Design Builder may only take credit for that portion of the total dollar value of the Contract equal to the distinct, clearly defined portion of the Work that the DBE Prime performs with its own forces.

DBE Subcontractor

When a DBE firm participates as a Subcontractor only that portion of the total dollar value of the Contract equal to the distinct, clearly defined portion of the Work that the DBE performs with its own forces shall be credited. Include the cost of supplies and materials obtained by the DBE for the Work in the Contract including supplies purchased and equipment leased by the DBE.

The Design-Builder may not take credit for supplies, materials, and equipment the DBE Subcontractor purchases or leases from the Design Builder or its affiliate, including any Design-Builder resources available to the DBE subcontractors at no cost.

Count the entire value of fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical, consultant, managerial services, or for providing bonds or insurance.

When a DBE subcontracts to another firm, the value of the subcontracted Work may be counted as participation only if the DBE's lower tier Subcontractor is also a DBE. Work that a DBE subcontracts to a non-DBE firm shall not be credited.

When non-DBE Subcontractor further subcontracts to a lower-tier Subcontractor or supplier who is a certified DBE, then that portion of the Work further subcontracted may be credited as DBE participation, provided it is a distinct clearly defined portion of the Work that the DBE is certified to perform and the DBE Subcontractor performs the Work with its own forces.

Crediting DBE Participation

All DBE Subcontractors, whether COA DBE Subcontractors or non-COA DBE Subcontractors, shall be certified before the subcontract on which it is participating is executed.

DBE Subcontract and Lower Tier Subcontract Documents

There must be a subcontract agreement that complies with 49 CFR Part 26 and fully describes the distinct elements of Work committed to be performed by the DBE. The subcontract agreement shall incorporate requirements of the primary Contract. Subcontract agreements of all tiers, including lease agreements shall be readily available at the project site for WSDOT review.

DBE Broker/Packager

The value of fees or commissions charged by a DBE Broker or a DBE behaving in a manner of a Broker for providing a bona fide service, such as professional, technical, consultant, managerial services, or for providing bonds or insurance will only be credited towards meeting the DBE COA Goal if the firm is determined to be performing a CUF.

Trucking

The DBE trucking firm receives credit for the value of the transportation services it provides on the Contract using trucks it owns or leases, licenses, insures, and operates with drivers it employs.

The Work that a DBE trucking firm performs with trucks it leases from other certified DBE trucking firms qualify for 100% DBE credit.

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Only the fees/commissions the DBE receives for arranging the transportation services provided is credited when trucks are leased from non-DBE trucking firm. The trucking Work subcontracted to any non-DBE trucking firm will not receive credit for Work done on the project.

Truck registration and lease agreements shall be readily available at the project site for WSDOT review.

DBE Manufacturer and DBE Regular Dealer

If materials or supplies are obtained from a DBE Manufacturer, 100 percent of the cost of materials or supplies can count toward the DBE COA Goal. The DBE Manufacturer shall be certified as such by OMWBE.

Sixty percent (60%) of the cost of materials or supplies purchased from a DBE Regular Dealer may be credited toward meeting the DBE COA Goal. If the role of the DBE Regular Dealer is determined to be that of a Broker, then the DBE credit shall be limited to the fee or commission it receives for its services. Regular Dealer status is granted on a Contract-by-Contract basis.

A firm wishing to be approved as a Regular Dealer must submit a request in writing to WSDOT for approval, no later than ten working days prior to Bid opening. The Approved Regular Dealers List is published on WSDOT's Office of Equal Opportunity (OEO) web site.

Purchase of materials or supplies from a DBE which is neither a manufacturer nor a regular dealer, (i.e. Broker) only the fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site, can count toward DBE COA Goal, provided the fees are not excessive as compared with fees customarily allowed for similar services. The cost of the materials and supplies themselves cannot be counted toward DBE COA Goal.

Note: Requests to be listed as a Regular Dealer will only be processed if the requesting firm is certified by the Office of Minority and Women's Business Enterprises in a NAICS code that fall within the 42XXXX NAICS Wholesale code section.

Commercially Useful Function (CUF)

The Design-Builder may only take credit for the payments made for Work performed by a DBE that is determined to be performing a CUF. This applies to all DBEs performing Work on a project, whether or not the DBEs are COA, if the Design-Builder wants to receive credit for their participation. The Design-Builder will conduct CUF (DBE On-Site) reviews, utilizing WSDOT Form #272-052 and #272-051, to ascertain whether DBEs are performing a CUF. WSDOT will perform audits of the CUF (DBE On-Site) reviews and may conduct additional CUF reviews at their discretion. A DBE performs a CUF when it is carrying out its responsibilities of its contract by actually performing, managing, and supervising the Work involved. The DBE must be responsible for negotiating price; determining quality and quantity; ordering the material and installing (where applicable); and paying for the material itself. If a DBE does not perform "all" of these functions on a furnish-and-install contract, it has not performed a CUF and the cost of materials cannot be counted toward DBE COA Goal. Leasing of equipment from a leasing company is allowed. However, leasing/purchasing equipment from the Design-Builder is not allowed. Lease agreements shall be readily available for review by WSDOT.

In order for a DBE traffic control company to be considered to be performing a CUF, the DBE must be in control of its work inclusive of supervision. The DBE shall employ a Traffic Control Supervisor who is directly involved in the management and supervision of the traffic control employees and services.

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The DBE does not perform a CUF if its role is limited to that of an extra participant in a transaction, contract, or project through which the funds are passed in order to obtain the appearance of DBE participation.

WSDOT will use the following factors in determining whether a DBE trucking company is performing a CUF:

- The DBE shall be responsible for the management and supervision of the entire trucking operation. The owner demonstrates business related knowledge, shows up on site and is active in running the business.
- The DBE finances are independently controlled by the DBE.
- The DBE shall with its own workforce, operate at least one fully licensed, insured, and operational truck used on the Contract. Employees are shown exclusively on the DBE payroll.
- The DBE may lease trucks without drivers from a non-DBE truck leasing company. If the DBE leases trucks from a non-DBE truck leasing company and uses its own employees as drivers, it is entitled to credit for the total value of these hauling services.
- Lease agreements for trucks shall indicate that the DBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others provided it is with the consent of the DBE and the lease provides the DBE absolute priority for use of the leased truck.
- Leased trucks shall display the name and identification number of the DBE.
- Leased trucks shall be driven by DBE employees included in the DBE's payroll.

The DBE may lease trucks from another DBE including a DBE owner-operator. The DBE who leases trucks from another DBE shall claim participation for the total value of the transportation services the lessee DBE provides on the Contract.

Joint Checking

A joint check is issued by a Design-builder to a Subcontractor and to a material supplier for items or services to be incorporated into a project.

A joint check agreement must be approved by WSDOT and requested by the DBE involved using the DBE Joint Check Request Form (form #272-053) prior to its use. The form must accompany the DBE Joint Check Agreement between the parties involved, including the conditions of the arrangement and expected use of the joint checks.

The approval to use joint checks and the use will be closely monitored by WSDOT. To receive DBE credit for performing a CUF with respect to obtaining materials and supplies, a DBE must "be responsible for negotiating price, determining quality and quantity, ordering the material and installing (where applicable) and paying for the material itself." The Design-Builder shall submit DBE Joint Check Request Form for WSDOT approval prior to using a joint check.

Material costs paid by the Design-builder directly to the material supplier are not allowed. If proper procedures are not followed or WSDOT determines that the arrangement results in lack of independence for the DBE involved, no DBE credit will be given for the DBE's participation as it relates to the material cost.

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Prompt Payment

Prompt payment to all Subcontractors shall be in accordance with Section 1-08.1(1) of these General Provisions.

Procedures after Execution

After execution of the Contract, the Design-Builder shall provide the additional information described below.

As described in the ITP, each Proposer for this Contract was required to submit a DBE Performance Plan as part of a responsive Proposal. Following execution of the Contract and during both the design and construction portions of the Project, the Design-Builder shall submit documentation, in the form of progress reports described in the Section below entitled "REPORTING", to show that the Design-Builder is meeting the DBE COA goal for the Project, or if the goal is not being met, the Design-Builder must submit satisfactory evidence that it has made good faith efforts, in accordance with that Section, to meet the goal. Evidence of good faith efforts, as described in 49 CFR Part 26 Section 26.53, will be monitored by WSDOT throughout the duration of the Contract.

Before execution of a DBE COA subcontract, the Design-Builder, Subcontractor, or lower-tier Subcontractor shall submit the following items:

1. Information for all utilized COA DBEs (Using the DBE Utilization Certification form, DOT Form 272-056 EF):
 - Correct business name, federal employee identification number (if available), and mailing address.
 - List of all items and types of Work assigned to each utilized DBE firm, including prices and/or amounts paid.
 - Description of partial items and types of Work (if any) to be sublet to each successful DBE firm specifying the distinct elements of Work under each item to be performed by the DBE and including the dollar value of the DBE portion.
2. As it occurs, names of firms who submit a bid or quote in an attempt to participate in this Project whether they were successful or not. Include the correct business name, federal employer identification number (optional), and a mailing address.
3. Information will be added progressively to the form as subcontracts are executed so all COA DBE executed subcontract information to date is shown.

The firms identified by the Design-Builder may be contacted by WSDOT to solicit general Information as follows:

- Age of the firm.
- Average of its gross annual receipts over the past three years.

Crediting DBE Participation toward Meeting the Goal

All DBE COA subcontracts shall be executed and the final DBE utilization form submitted prior to the Substantially Completed Design Milestone in the RFP.

Reporting

All DBE work shall be reported. The Design-Builder shall submit a Monthly Report of Amounts Credited as DBE Participation to the WSDOT Engineer each month between Execution of the Contract and Physical Completion of the Contract using the application available at:

<https://remoteapps.wsdot.wa.gov/mapsdata/tools/dbeparticipation/>.

The monthly report is due 20 Calendar Days following the end of the month. A monthly report shall be submitted for every month between Execution of the Contract and Physical Completion regardless of whether payments were made or work occurred. After Execution of the Contract, the Design-Builder shall send an e-mail to

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DBEAdmin@wsdot.wa.gov containing the following information: the first and last name, email address, title, and phone number of the person that will be submitting the above documents for their company. The email shall include the WSDOT contract number they will be reporting on. After receipt of this information by WSDOT, the Design-Builder will receive an email containing their username and password for the application and a link to the application. Reporting instructions are available in the application. In the event that the payments to a DBE have been made by an entity other than the Design-Builder, as in the case of a lower-tier Subcontractor or supplier, then the Design-Builder shall obtain the certification from the paying entity and submit these payments to WSDOT with their monthly reports using the application available at: <https://remoteapps.wsdot.wa.gov/mapsdata/tools/dbeparticipation/>.

The Design-Builder shall provide monthly DBE Progress Reports to WSDOT and shall also provide an annual report on or before July 1 of each year. The monthly progress report shall include a comparison of the baseline of project COA DBE participation from the DBE Performance Plan with actual monthly reported COA DBE performance and a comparison of COA DBE participation commitments (executed subcontracts) with the planned COA DBE participation. Each report shall also include a narrative and payment summary stating whether the Design-Builder is on target with respect to the established schedule for COA DBE participation, whether the goal is being exceeded (stating the amount of excess), or whether the goal is behind the target (stating the amount of the deficit), and what adjustments are being made to accomplish the plan. If the projected COA DBE performance is not met for two consecutive months, the Design-Builder shall provide a revised performance plan showing how the COA DBE goal will be met. If accepted by WSDOT, the revised plan will be used for future comparisons of monthly participation.

Changes in COA Work Committed to DBE

The Design-Builder shall utilize the COA DBEs to perform the work and supply the materials for which each is committed unless approved by WSDOT. The Design-Builder shall not be entitled to any payment for work or material completed by the Design-Builder or other subcontractors that was committed to be completed by the COA DBEs.

Owner Initiated Changes

WSDOT will consider the impact on DBE participation in instances where WSDOT changes Work that was committed to a DBE at the time of Contract Award. In such instances, the Design-Builder shall not be required to substitute for the Work but is encouraged to do so. WSDOT may direct DBE participation or solicitation of DBEs as part of a change order.

Design-Builder-Initiated Changes

The Design-Builder cannot reduce the amount of work of a COA DBE without good cause, even if the Design-Builder continues to meet the DBE COA Commitment through other means. Reducing a COA DBE's Commitment is viewed as a partial DBE termination, subject to the procedures below.

Original Quantity Under runs

In the event that Work committed to a DBE firm as part of the COA underruns the original planned quantities the Design-Builder is encouraged to substitute the remaining applicable Work to another DBE but is not required to do so.

Design-Builder Proposed DBE Substitutions

Requests to substitute a COA DBE must be for good cause (see DBE termination process below), and requires the written approval of WSDOT. After receiving a termination with good cause approval, the Design-Builder may only replace a DBE with another certified DBE. When any changes encountered between Contract Award and Execution that result in a substitution of COA DBE, the substitute DBE shall be certified prior to the Design Completion Milestone.

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DBE Termination

Termination of a COA DBE (or an approved substitute DBE) is only allowed in whole or in part with prior written approval of WSDOT. The Design-Builder must have good cause to terminate a COA DBE.

Good cause typically includes situations where the DBE Subcontractor is unable or unwilling to perform the work of its subcontract. Good cause may exist if:

- The DBE fails or refuses to execute a written contract.
- The DBE fails or refuses to perform the Work of its subcontract in a way consistent with normal industry standards.
- The DBE fails or refuses to meet the Design-Builder's reasonable nondiscriminatory bond requirements.
- The DBE becomes bankrupt, insolvent, or exhibits credit unworthiness.
- The DBE is ineligible to work on public works projects because of suspension and debarment proceedings pursuant to federal law or applicable State law.
- The DBE voluntarily withdraws from the project, and provides written notice of its withdrawal.
- The DBE's owner dies or becomes disabled with the result that the DBE is unable to complete its Work on the contract.

Good cause does not exist if:

- The Design-Builder seeks to terminate a COA DBE so that the Design-Builder can self-perform the Work.
- The Design-Builder seeks to terminate a COA DBE so the Design-Builder can substitute another DBE contractor or non-DBE contractor after execution of the COA DBE subcontract.
- The failure or refusal of the COA DBE to perform its Work on the subcontract results from the bad faith or discriminatory action of the Design-Builder (e.g., the failure of the Design-Builder to make timely payments or the unnecessary placing of obstacles in the path of the DBE's Work).

Prior to requesting termination, the Design-Builder shall give notice in writing to the DBE with a copy to WSDOT of its intent to request to terminate DBE Work and the reasons for doing so. The DBE shall have five (5) working days to respond to the Design-Builder's notice. The DBE's response shall either support the termination or advise WSDOT and the Design-Builder of the reasons it objects to the termination of its subcontract.

When a COA DBE is terminated, or fails to complete its work on the contract for any reason, the Design-Builder shall substitute with another DBE, substitute other DBE participation or provide documentation of GFE. A plan to achieve the COA DBE Commitment shall be submitted to WSDOT within 2 working days of the approval of termination or the Contract shall be suspended until such time the substitution plan is submitted.

Decertification/Graduation

When a DBE is "decertified" or "graduates" from the DBE program during the course of the Contract, the participation of that DBE shall continue to count towards the DBE COA Goal as long as the subcontract with the

Revised DBE Language 4/6/2015

DBE was executed prior to the decertification notice. The Design-Builder is obligated to substitute when a DBE does not have an executed subcontract agreement at the time of decertification/graduation.

Consequences of Non-Compliance

Breach of Contract

Each contract with a Design-Builder (and each subcontract the Design-Builder signs with a Subcontractor) must include the following assurance clause:

The Design-Builder, subrecipient, or Subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Design-Builder shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the Design-Builder to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient, deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the Design-Builder from future proposals as non-responsible.

Notice

If the Design-Builder or any Subcontractor, Consultant, Regular Dealer, or service provider is deemed to be in non-compliance, the Design-Builder will be informed in writing, by certified mail by WSDOT that sanctions will be imposed for failure to meet the DBE COA Commitment and/or submit documentation of good faith efforts. The notice will state the specific sanctions to be imposed which may include impacting a Design-Builder or other entity's ability to participate in future contracts.

Sanctions

If it is determined that the Design-Builder's failure to meet all or part of the DBE COA Commitment is due to the Design-Builder's inadequate good faith efforts throughout the life of the Contract, including failure to submit timely, required Good Faith Efforts information and documentation, the Design-Builder may be required to pay a DBE penalty equal to the amount of the unmet Commitment, in addition to the sanctions outlined in the WSDOT Standard Specifications for Road, Bridge, and Municipal Construction, Section 1-07.11(5).

Payment

Compensation for all costs involved with complying with the conditions of this Specification and any other associated DBE requirements is included in payment for the associated Contract items of Work, except otherwise provided in the Contract Documents.

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1-08.1 SUBCONTRACTING

Work done by the Design-Builder's own organization shall account for at least 30 percent of the awarded Contract Price. Before computing this percentage, however, the Design-Builder may subtract (from the Contract Price at award) the costs of any subcontracted Work on items the Contract designates as specialty items. For this Project, no items are designated as specialty items. The Design-Builder shall not Subcontract Work unless WSDOT approves in writing. The Design-Builder shall submit all requests to Subcontract on the form WSDOT provides. If WSDOT requests, the Design-Builder shall provide proof that the Subcontractor has the experience, ability, and /or equipment the Work requires. Along with the request to sublet, the Design-Builder shall submit the names of any contracting firms that the Subcontractor proposes to Subcontract Work to.

Prior to subcontracting any Work, the Design-Builder shall verify that every first tier Subcontractor meets the responsibility criteria stated below at the time of Subcontract execution. The Design-Builder shall include these responsibility criteria in every Subcontract, and require every Subcontractor to:

1. Possess any electrical contractor license required by 19.28 RCW or elevator contractor license required by 70.87 RCW, if applicable;
2. Have a certificate of registration in compliance with chapter 18.27 RCW;
3. Have a current state unified business identifier number;
4. If applicable, have:
 - a) Industrial insurance coverage for the bidder's employees working in Washington (Title 51 RCW);
 - b) An employment security department number (Title 50 RCW);
 - c) A state excise tax registration number (Title 82 RCW);
5. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or RCW 39.12.065(3);
6. Verify these responsibility criteria for every lower tier Subcontractor at the time of Subcontract execution; and
7. Include these responsibility criteria in every lower tier Subcontract.

The Design-Builder shall require each Subcontractor to comply with Section 1-07.9 and to furnish all certificates and statements required by the Contract.

Subcontracting shall not:

1. Relieve the Design-Builder of any responsibility to carry out the Contract;
2. Relieve the Design-Builder of any obligations or liability under the Contract and the Contract Bond;
3. Create any Contract between WSDOT and the Subcontractor; or
4. Convey to the Subcontractor any rights against WSDOT.

WSDOT will not consider as subcontracting: (1) purchase of sand, gravel, crushed stone, crushed slag, batched concrete aggregates, ready mix concrete, off-site fabricated structural steel, other off-site fabricated items, and any other materials supplied by established and recognized commercial plants; or (2) delivery of these materials to the Work Site in vehicles owned or operated by such plants or by recognized independent or commercial hauling companies hired by those commercial plants. However, the Washington State Department of Labor and Industries may determine that RCW 39.12 applies to the employees of such firms identified in 1 and 2 above in accordance with WAC 296-127. If this should occur, the provisions of Section 1-07.9, as modified or supplemented shall apply.

The Design-Builder shall certify to the actual amounts paid to Disadvantaged, Minority, Women's, or Small Business Enterprise firms that were used as Subcontractors, lower tier subcontractors, manufacturers, regular dealers, or service providers on the Contract. This certification shall be submitted to WSDOT on a monthly basis each month between Execution of the Contract and Physical Completion of the Contract using the application available at: <https://remoteapps.wsdot.wa.gov/mapsdata/tools/dbeparticipation>.

The monthly report is due 20 Calendar Days following the end of the month. A monthly report shall be submitted for every month between Execution of the Contract and Physical Completion regardless of whether payments were made or Work occurred.

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If dissatisfied with any part of the subcontracted Work, WSDOT may request in writing that the Subcontractor be removed. The Design-Builder shall comply with this request at once and shall not employ the Subcontractor for any further Work under the Contract.

Prior to any Subcontractor or lower tier Subcontractor beginning work, the Design-Builder shall submit to the WSDOT Engineer a certification (WSDOT Form 420-004) that a written agreement between the Design-Builder and the Subcontractor or between the Subcontractor and any lower tier Subcontractor has been executed. This certification shall also guarantee that these Subcontract agreements include all the documents required by the General Provision "Federal Agency Inspection".

A Subcontractor or lower tier Subcontractor will not be permitted to perform any Work under the Contract until the following documents have been completed and submitted to WSDOT:

1. Request to Sublet Work (Form 421-012), and
2. Design-Builder and Subcontractor or Lower Tier Subcontractor Certification for Federal Aid Projects (Form 420-004).

The Design-Builder's records pertaining to the requirements of this General Provision shall be open to inspection or audit by representatives of WSDOT during the life of the Contract and for a period of not less than three years after the date of acceptance of the Contract. The Design-Builder shall retain these records for that period. The Design-Builder shall also guarantee that these records of all Subcontractors and lower tier Subcontractors shall be available and open to similar inspection or audit for the same time period.

The Design-Builder shall ensure that a Certification for Federal-Aid Contracts (Form DOT 272-040) is included in every contract with any Subcontractor whose contract exceeds \$100,000. By signing the contract any Subcontractor will be deemed to have signed and agreed to the conditions and requirements of the Certification for Federal-Aid Contracts. The Design-Builder shall keep evidence in their files that such Subcontractor has committed to this requirement.

The Design-Builder shall require any Subcontractor or lower tier Subcontractor whose contract exceeds \$100,000 to submit Standard Form LLL, "Disclosure of Lobbying Activities", in accordance with the instructions on the form, except that, Standard Form LLL shall be submitted to the Design-Builder for submittal to WSDOT.

The Committee is using TheHub, provided by Parsons through Eric Ostfeld.

If you need access to TheHub, contact Teresa Eckard at eckardt@wsdot.wa.gov and she will request it for you.

You will receive a notification from TheHub to your email; follow directions to activate your membership in the group.

Documents will be posted to TheHub and the deadlines will be outlined in the email announcing the posting of the document.

Typically, you will have 2 weeks to review a Chapter 2 section with an additional week to add more comments, respond to other's comments.

Subject Matter Experts (SME's) can respond and make comments throughout the review period.

TheHub will send notifications of activities and all documents that are posted with comments. Just click on the blue file name of the document you want to access.

To comment, use the in-line comment feature. You can double click (I sometimes have to do this a couple times) at the location where you want to comment. Include the Page#, Line#, Section reference before beginning your comment.

If you want to add to someone else's comment, you can click on the faded out yellow comment box that hovers at the location of the comment in the document. When the box opens, you have the option to reply.

Subject Matter Experts (SME) will have access to their particular sections and can comment or respond prior to the deadline for comments at their discretion. Resolution of comments can occur before the meetings to shorten the time needed in the meeting. WSDOT, AGC and ACEC will provide SME's as needed for the various sections being reviewed – some which may be members of the committee. They will be provided and added to TheHub prior to the review of their section.

You can view all in-line comments at the bottom of the page.

No comments will be accepted by email, hard copy, or other method. They must be posted to the document in TheHub to be considered.

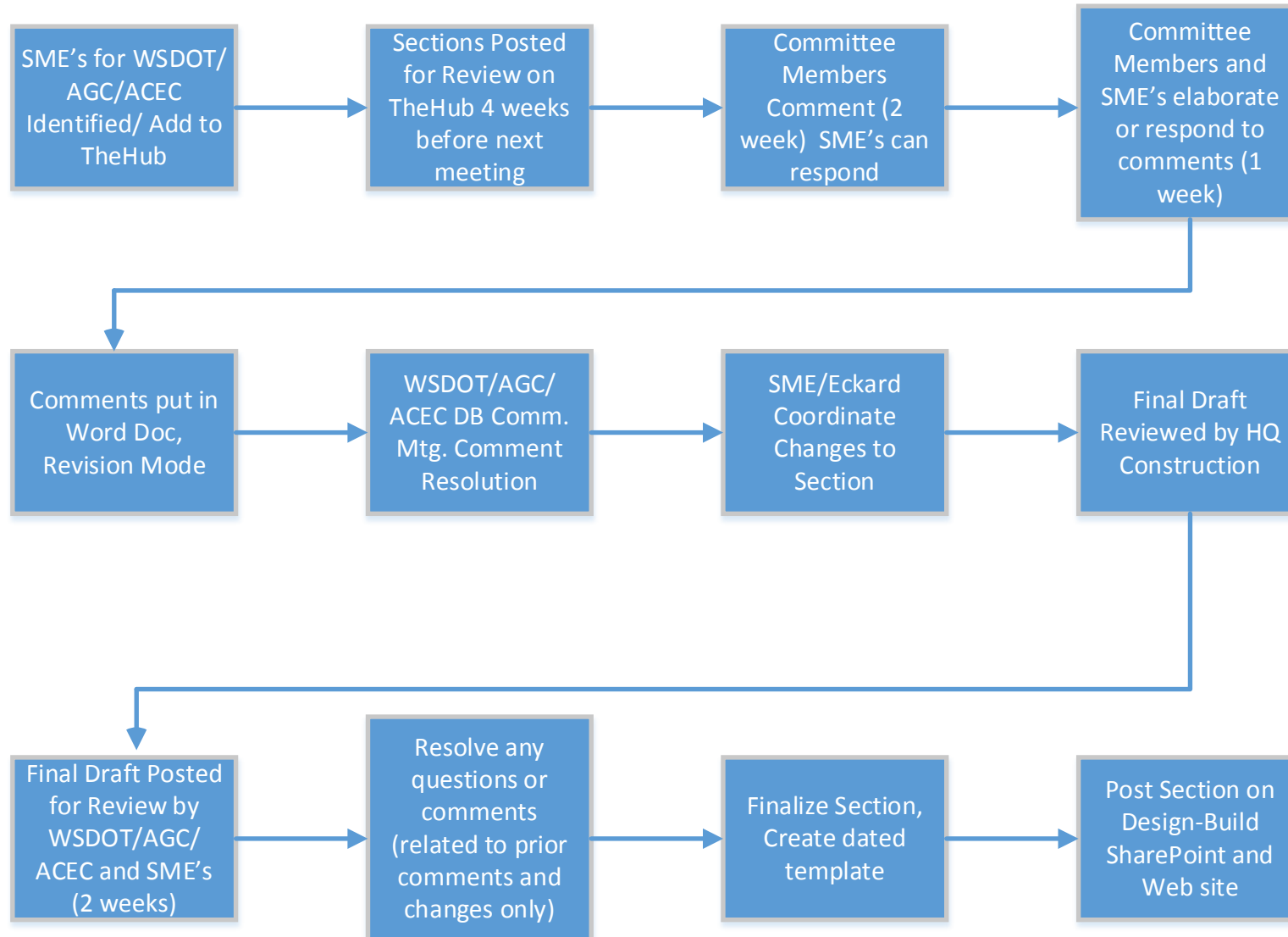
Comments and responses will be incorporated into the section word document in revision mode for use in the meeting and for final tracking of the comments. Comments will be discussed and resolved as necessary in the Committee Meetings.

After resolution of all comments and responses by the WSDOT SME, the draft will be reviewed by HQ Construction and then posted for two weeks for committee review.

Comments during this period must be related to previous comments or the changes in the document as a result of a previous comment.

Comments from this period will be resolved, w/a final review by HQ Construction, and then the document will be published as a dated template for this section and posted on the WSDOT Design-Build SharePoint and Web page.

Draft - WSDOT/AGC/ACEC Design-Build Committee Review Procedure



2.6 GEOTECHNICAL

2.6.1 GENERAL

The Design-Builder shall perform all of the Geotechnical Work necessary to design and construct the Project. Elements of the Work shall include, but are not limited to, the following:

- The Design-Builder shall evaluate the geotechnical requirements of the Work, and perform all geotechnical explorations, geotechnical analyses, and laboratory testing that is necessary to design and construct the Project. The Design-Builder shall provide geotechnical design recommendations, calculations, plans, specifications, and construction support for all Project elements in accordance with this Section. All geotechnical elements of the Project that are Released for Construction (RFC) shall be fully supported with geotechnical design recommendations, supporting geotechnical data, calculations, plans, and specifications for construction following the requirements set forth in this Section and the *WSDOT Geotechnical Design Manual*.
- Prior to Physical Completion, the Design-Builder shall provide a Final Geotechnical Documentation Package that documents all the geotechnical findings, recommendations, calculations, and design completed for the Project.

2.6.2 MANDATORY STANDARDS

The following is a list of Mandatory Standards that shall be followed for all design and construction related to this Section. They are listed in hierarchical order, where the Mandatory Standards listed higher in the list shall take precedence over those listed below them. If a Mandatory Standard contains a reference to another document that is not listed below and states that the referenced document shall be used, the referenced document shall also be considered to be a Mandatory Standard with the same hierarchical precedence as the source publication. This is not a comprehensive list; other applicable standards may be required to complete the design and construction. If the Design-Builder becomes aware of any ambiguities or conflicts relating in any way to the Mandatory Standards, the Design-Builder shall immediately notify the WSDOT Engineer.

- Special Provisions (Appendix B).
- *Amendments to the Standard Specifications* (Appendix B).
- Standard Specifications (Appendix B).
- *WSDOT Geotechnical Design Manual* (M46-03) (GDM) (Appendix D).
- *WSDOT Bridge and Structures Office Design Memoranda* (Appendix D)
- *WSDOT Bridge Design Manual (LRFD)* (M23-50) (BDM) (Appendix D).
- *WSDOT Design Manual* (M22-01) (Appendix D).
- *WSDOT Highway Runoff Manual* (M31-16) (HRM) (Appendix D).
- *WSDOT Qualified Products List* (QPL)
(<http://www.wsdot.wa.gov/Business/MaterialsLab/QPL.htm>).
- *WSDOT Materials Manual* (M46-01) (Appendix D).

- WSDOT Construction Manual (M41-01) (Appendix D).
- Standard Plans (Appendix D).
- AASHTO Guide Specifications for LRFD Seismic Bridge Design.
- AASHTO LRFD Bridge Design Specifications.
- AASHTO Manual on Subsurface Investigations.
- AASHTO Standard Specifications for Transportation Materials and Methods of Sampling and Testing.
- AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 5th Edition, 2009.
- FHWA Technical Manual for Design and Construction of Road Tunnels – Civil Elements (Publication No. FHWA-NHI-10-034).

2.6.2.1 DESIGN-BUILD MODIFICATIONS TO THE GDM

The GDM is a mandatory design document. For purposes of design-build projects, when the manual refers to an activity that “shall” be done or that “is” done, the Design-Builder shall assume those activities are mandatory. For purposes of this Project, when the manual refers to an activity that “should” be done, the Design-Builder shall assume those activities are mandatory unless approved by the WSDOT Engineer. All references to the Bridge and Structures Office (BO), Geotechnical Office (GO), Structural Designer (ST), Structural Engineer, Project Designer, Construction Project Engineer (CPE), Geotechnical Engineer, and Geotechnical Designer (GT) shall mean the Design-Builder. Where the GDM requires approval by the State Geotechnical Engineer, the Design-Builder shall be responsible to request approval from the WSDOT Engineer. Work completed without the necessary approvals will not be accepted.

No changes have been made to provisions in the GDM that do not apply to design-build contracts, (e.g., descriptions of WSDOT divisions and their duties, descriptions of legal authority, or descriptions of internal WSDOT procedures or policies); however, in some cases it may not be clear whether rights or responsibilities in the GDM are applicable to the Design-Builder. If it is unclear whether specific provisions in the GDM apply to the Design-Builder, the Design-Builder shall raise the issue with WSDOT and WSDOT will make that determination at its sole discretion. WSDOT has identified the following provisions of the GDM that do not apply to design-build contracts:

- Section 1.2.2, Geotechnical Functions Delegated to the Regions.
- Section 1.2.3, Coordination between HQ's and Region Regarding Emergency Response.
- Section 1.3, Geotechnical Support within the WSDOT Project Management Process.
- Section 1.6, Geotechnical Consultant Administration.
- Chapter 20, Unstable Slope Management.
- Chapter 21, Material Source Investigation and Report.
- Chapter 22, Geotechnical Project Development, Reports, and Support for Design-Build Projects.

Comment [j1b1]: Apr 2, 2015 2:11 PM
Phil Larson says:

"Shall" vs "Should" Leaves no room for engineers judgment.

Comment [j1b2]: Apr 3, 2015 2:11 PM
Dan Campbell says:

I agree. Many of the "shoulds" actually require professional judgment, and interpreting all "shoulds" as "shalls" takes professional judgment out of the equation and defaults to the most conservative stance. This blanket assumption is costly and not necessary.

[Jim Cuthbertson](#) says:

This text is intentionally prescriptive.

Meeting Response: change directed to approved

Comment [j1b3]: Apr 3, 2015 2:22 PM
Eric Ostfeld says:

Line 20-23: WSDOT Engineer approval can be difficult to price for D-B and has potential to assign liability to WSDOT. Consider delegation of approvals to D-B geotechnical engineer or, if not quantified in the GDM, perhaps utilize the ATC process?

[Jim Cuthbertson](#) says:

As the owner, there are a few things we are not willing to relinquish to the DB. Elements that we feel have long term risk implications for us or long term maintenance. There are not many of these. Where they exist, we absolutely want to have a say in the acceptance.

Meeting Response: No change to language

2.6.2.2 GEOTECHNICAL DATA

A *Geotechnical Baseline Report* (GBR) (Appendix G) and a *Geotechnical Data Report* (GDR) (Appendix G) have been prepared for the Project. The soil conditions and groundwater levels provided in the GDR are known only at each specific boring location at the time of the boring.

WSDOT has gathered and assembled reference geotechnical information near the Site that may be relevant to the Design-Builder's Work. This information is provided in Appendix G and includes test boring logs, memos, reports, substructure details (foundation type and bearing elevation), and subsurface profiles for other structures not associated with this Project. The Design-Builder may use this information at the Design-Builder's discretion. WSDOT makes no warranty, expressed or implied, as to the accuracy of this information.

The *Historic Aerial Photographs* (Appendix G) show the locations of structures and facilities, roadways, bridges, drainage, and other elements that were previously present on-Site, associated with historical Site uses. The Design-Builder may use this information as an indication of potentially buried structures or obstructions at the Design-Builder's discretion, but WSDOT makes no warranty, either express or implied, as to the accuracy of the information.

2.6.3 PERSONNEL REQUIREMENTS

2.6.3.1 GEOTECHNICAL GROUP MANAGER

The Design-Builder shall provide a Geotechnical Group Manager (GGM) to manage and review all aspects of the geotechnical design and construction Work completed for the Project. The GGM shall ensure that all design and construction of permanent and temporary Work is in conformance with the RFP and Quality Management Plan (QMP), and shall be responsible for the quality of the geotechnical Work performed and for coordinating all geotechnical design elements of the Project.

The GGM shall have a minimum of ten years of supervisory experience in geotechnical design and construction support of major structures, foundations, retaining walls, engineered slopes, seismic design and mitigation, dewatering, and design and construction of facilities over sensitive soils and soft ground conditions. The GGM shall be a Professional Engineer, licensed in the State of Washington under Title 18 RCW.

2.6.3.2 DESIGN PROFESSIONALS – CIVIL (GEOTECHNICAL) ENGINEERS, ENGINEERING GEOLOGISTS, HYDROGEOLOGISTS, AND GEOLOGISTS

All Project elements that are Released for Construction and all field design changes shall be designed by the appropriate design professional either: Civil (Geotechnical) Engineer, Engineering Geologist, Hydrogeologist, or Geologist. All geotechnical recommendations, calculations, plans, and specifications shall bear the seal of the design professional responsible for the Work in accordance with Section 1-02.3 of the General Provisions.

2.6.3.3 GEOTECHNICAL FIELD PERSONNEL

Geotechnical field personnel working on behalf of the GGM, not including Geotechnical Special Inspectors, who observe or validate conditions and related Work, shall have a minimum of two years' experience with the specific type of field Work they will be performing. The Design-Builder may use geotechnical field personnel that do not have

Comment [jlb4]: Mar 21, 2015 2:19 PM
Frank Young says:

2.6.2.2, line 11 & 12
Information should not be provided if WSDOT cannot warrant it.

Jim Cuthbertson says:
This is typical practice to provide all information. Info in the Data Report we stand behind and is subject to DSC. Reference info is not.

Meeting Response: No change

Comment [jlb5]: Apr 3, 2015 2:13 PM
Dan Campbell says:

The temporary works are often undertaken by the contractor through subconsultants that are not part of the formal design-build team.

Jim Cuthbertson says:
EXACTLY. That is a potential problem for us. We will have a lively discussion at the meeting.

Meeting Response: Jim and Jim will rewrite the "temp" portion of this.

two years' experience, provided that the Design-Builder trains the staff for the Work that they will perform prior to the performance of the Work.

2.6.3.4 INSTRUMENTATION PERSONNEL

The Design-Builder's personnel responsible for the installation and monitoring of instrumentation such as inclinometers, piezometers, wells, settlement indicating devices, standard penetration testing, and Becker hammer testing shall have a minimum of two years' experience with the specific type of instrumentation they will be operating unless approved by WSDOT Engineer.

2.6.3.5 GEOTECHNICAL SPECIAL INSPECTOR (GSI)

The Design-Builder shall provide at least one Geotechnical Special Inspector (GSI). A GSI shall have at least two years of geotechnical inspection experience from a firm or corporation with at least five years' experience hired specifically for the sole purpose of providing QC/QA inspection services for geotechnical Project elements being constructed. GSIs and their firm or corporation shall be approved by WSDOT. GSIs shall not be employed by, or be a member of a Subcontractor, crew, or individual's performing the Work being inspected. GSIs that have possible conflicts of interest with regard to the Work being performed shall not be used. GSIs shall directly report to the Project Quality Manager. The EOR for the design of the Project element being constructed is permitted to act as the GSI for the construction of the elements designed provided the EOR meets the qualification requirements of this Section. The GSI shall provide the inspection and documentation duties described in this Section during the construction of geotechnical features and elements in accordance with the Geotechnical Special Inspection Plan (GSIP).

2.6.3.5.1 General Responsibilities

The GSI shall review the RFC documents and design documents, including pertinent geotechnical reports and memoranda prior to the Work activity beginning. Where required, the GSI shall attend pre-construction meetings. The GSI shall monitor construction, provide special inspection for compliance with the Mandatory Standards, the GSIP, RFC documents, and for Project elements identified in this Section. When permitted, the GSI shall supervise QA Inspection Technicians inspecting Work operations.

2.6.3.5.2 Changing GSIs

Maintaining consistency and continuity of inspection is paramount to high quality inspection. Approved GSIs may be changed at any time prior to Work beginning on a Project element, provided another approved GSI is utilized. If for unforeseen reasons, a GSI must be changed during a Work activity which has already started, another approved GSI may assume the duties, provided the replacement GSI has already inspected similar Work on this Project. If there is no available approved GSI meeting the requirement above, the Work for that element shall stop until an approved GSI is available.

2.6.4 FIELD EXPLORATION

The Design-Builder shall review the available information in the GDR and perform field exploration as necessary to meet the requirements of the Mandatory Standards in addition to the field exploration requirements identified in this RFP. The Design-Builder's field exploration may include field review by design professionals, field mapping, geophysical investigations, remote sensing, aerial photography, air photo interpretation, geotechnical drilling, test pits, pump tests, or other methods deemed suitable by the Design-Builder to

Comment [j1b6]: Apr 3, 2015 2:15 PM
Dan Campbell says:

This exception seems to conflict with the previous statement requiring 2 years' experience. And it seems odd that an exception would be allowed for the geotechnical special inspector but not the instrumentation personnel (see next section).

Jim Cuthbertson says:

These people are not GSI. It was intended that these are general run of the mill inspectors. There was some back and forth about the GSI and QA and into which RFP section this fit. It is worthy of a second look. (2.28)

Meeting Response: No Change

Comment [j1b7]: Apr 3, 2015 2:34 PM
Eric Ostfeld says:

Agree with above.... as written can impact critical path on project (i.e. incur LD's) based on staff availability.

Comment [j1b8]: Apr 2, 2015 2:33 PM
Phil Larson says:

Section 2.6.3.4 - Add the following sentence, to be consistent with Section 2.6.6.3:

"The Design-Builder may use instrumentation personnel that do not have two years' experience, provided that the Design-Builder trains the staff for the instrumentation Work that they will perform prior to the performance of the Work."

Apr 3, 2015 2:31 PM

Eric Ostfeld says:

General comment - allowing the D-B to train their staff to perform the work is a great concept. Provides opportunity to get new blood into D-B.

Comment [j1b9]: Apr 2, 2015 2:07 PM
Marek Bednarczyk says:

PG 4, Lines 32-35: Why can't an approved GSI who inspected similar work on another project be approved?

Comment [j1b10]: Apr 3, 2015 2:34 PM
Eric Ostfeld says:

Agree with above.... as written can impact critical path on project (i.e. incur LD's) based on staff availability.

Meeting Response : Deleted "on this project"

Comment [j1b11]: Apr 2, 2015 2:34 PM
Phil Larson says:

Section 2.6.4- Add paragraph for exploration nomenclature:

"All field explorations shall be identified in accordance with WSDOT naming conventions and shall include the exploration year at the end of the identification number." This was asked by the 167 HOT Lanes team

1 obtain the geotechnical information necessary to support design and construction. The
2 Design-Builder shall assume the responsibilities of the Field Exploration Manager (FEM)
3 and the Field Exploration Supervisor (FES) wherever these roles are identified in the
4 GDM.

5 All field explorations shall be completed in conformance with the Mandatory Standards
6 and applicable laws and permits and the requirements identified in this RFP. The Design-
7 Builder shall secure all access permits from the appropriate agencies or from adjacent
8 private property owners, if required.

9 All boring, hand hole, test pit, and cone penetrometer locations shall be surveyed. All
10 geophysical lines shall be surveyed. The survey shall determine station and offset,
11 elevation, and State Plane coordinates, which shall be included on the boring logs, cone
12 penetration test (CPT) logs, hand hole logs, test pit logs, and geophysical data.

13 The Design-Builder shall retain all soil and rock samples recovered during field
14 explorations until Final Acceptance. If requested, the Design-Builder shall deliver samples
15 to the Materials Laboratory at 1655 S. 2nd Ave., Tumwater, before Final Acceptance.
16 After Final Acceptance, the Design-Builder shall dispose of samples not delivered to the
17 Materials Laboratory.

18 Field exploration may be performed in stages. For each instance of field exploration the
19 Design-Builder shall prepare and submit a Subsurface Investigation Plan (SIP) and revise
20 or supplement the Geotechnical Instrumentation Plan (GIP) in accordance with this
21 Section, prior to execution of such Work.

22 2.6.4.1 EXPLORATION TERMINATION AND ABANDONMENT

23 Unless directed otherwise by WSDOT, the Design-Builder shall abandon and backfill all
24 field exploration holes, inclinometers, piezometers, wells, hand holes, test pits, and CPT
25 holes within the Project limits that are not required for design purposes or construction
26 monitoring. Prior to completion of the Project, all field explorations including pre-existing
27 wells shown in the GDR, shall be abandoned and backfilled, unless directed otherwise by
28 WSDOT. The Design-Builder shall do so in a manner that ensures against subsequent
29 settlement of the backfill and the downward migration of surface water and groundwater.

30 Backfilling of borings, test pits, CPT holes, and abandonment of open standpipe
31 piezometers, vibrating wire piezometers, cased suspension logging holes, wells, and
32 inclinometers shall be performed in accordance with the provisions of applicable Local
33 Agency, State, and Federal laws and regulations. The Design-Builder shall provide
34 WSDOT with WSDOE validated Notice of Intent forms for the construction and
35 decommission of all new wells and for the decommission of all existing wells. Details
36 about the existing wells are included in the GDR.

37 Upon completion of the field investigation exploration Work, the Design-Builder shall
38 remove all surplus material, temporary structures, and debris resulting from the Work
39 performed on land and in water.

40 2.6.4.2 EXPLORATION FIELD NOTES, DAILY DRILL REPORTS, FINAL BORING LOGS, 41 AND FINAL TEST PIT LOGS

42 For all field exploration performed by the Design-Builder, exploration field notes shall be
43 prepared in accordance with the requirements of the GDM.

Comment [Jlb12]: Apr 3, 2015 2:17 PM
Dan Campbell says:

Is this requirement that the design-builder secure all access permission the default? It seems like this might best be a case by case scenario depending upon the project.

Jim Cuthbertson says:

WSDOT does not know ahead of time what, where, when, or how a DB may need to access adjacent property. We would rather have the DB secure entry.

Meeting Response: No change

Comment [Jlb13]: Apr 3, 2015 2:18 PM
Dan Campbell says:

Final Acceptance of what? The final geotechnical report? Construction completion?

Comment [Jlb14]: Apr 8, 2015 7:41 AM
Omar Jepperson says:

Final Acceptance is a defined term, since it is capitalized. This takes you to General Provisions 1-01.3 Definitions.

Comment [Jlb15]: Apr 3, 2015 2:20 PM
Dan Campbell says:

Does this include monitoring wells/piezometers installed by WSDOT for the GDR?

Jim Cuthbertson says:

Yes. But, we may need to add text stating ...unless directed otherwise by the WSDOT Engineer.

Meeting Response: See Next

Comment [Jlb16]: Apr 2, 2015 2:35 PM
Phil Larson says:

Section 2.6.4.1 – In some circumstances, it would be beneficial to keep some instrumentation for future monitoring. An example is the VWPs that were installed at the Knob cut for SR 530. We should have a way to hand them back to WSDOT if needed.

Jim Cuthbertson says:

It would but that is more an exception than rule and would be a project specific adaptation to the RFP template.

Meeting Response: text changed ... including pre-existing wells shown in the GDR, shall be abandoned and backfilled, unless directed otherwise by WSDOT.

For all field exploration performed by the Design-Builder that includes geotechnical drilling or test pits, inspector daily drill reports, final boring logs, and final test pit logs shall be prepared in accordance with the requirements of the GDM.

Draft boring logs and draft test pit logs shall not be used as the basis for design of RFC elements. Final boring logs and final test pit logs together with a plan showing their locations relative to the Work shall be included with all calculation packages and geotechnical recommendations prepared by the Design-Builder.

Copies of all exploration field notes, daily drill reports, final boring logs, and final test pit logs prepared by the Design-Builder shall be provided to WSDOT as part of the Final Records for the Project in accordance with Section 2.12.

2.6.5 GEOTECHNICAL ANALYSIS AND DOCUMENTATION

2.6.5.1 FIELD AND LABORATORY TESTING REQUIREMENTS

Field and laboratory tests shall be conducted in accordance with the GDM.

Laboratories conducting geotechnical testing shall be either AASHTO accredited for the testing being performed, or fulfill the requirements of AASHTO R18 for qualifying testers and calibrating/verifying of testing equipment for those tests being performed. All test results shall be included in the Design-Builder's calculations, where appropriate, and the Final Geotechnical Documentation Package.

2.6.5.2 GEOTECHNICAL ANALYSIS

The Design-Builder shall perform geotechnical engineering and geologic analyses in accordance with the Mandatory Standards and the requirements of this RFP. The geotechnical engineering and analyses shall be based on the findings from subsurface field investigation explorations and laboratory testing programs performed by the Design-Builder and information contained in the GDR.

2.6.5.3 GEOTECHNICAL REPORTS AND MEMORANDA

The Design-Builder shall prepare geotechnical reports or technical memoranda in conformance with the GDM that address the geotechnical aspects of the Project elements that are Released for Construction or for design changes during construction. Prior to the preparation of any geotechnical report(s) or technical memoranda, the Design-Builder shall provide an outline or numbering system for the technical memoranda and their supporting calculation packages so that the technical memoranda can be easily cross referenced to the supporting calculation packages.

The Design-Builder shall provide a Final Geotechnical Documentation Package in accordance with this Section.

2.6.6 DESIGN CRITERIA

2.6.6.1 SEISMIC DESIGN

This Project is located in a high seismic region with poor soils that could be susceptible to liquefaction, loss of strength, or deformation during seismic conditions. Some of the soils are sensitive and subject to loss of strength on remolding. The Design-Builder shall perform appropriate design and construction of the Project elements as specified in the GDM and the BDM and shall design for liquefaction, flow failure, lateral spreading,

Comment [jlb17]: Apr 3, 2015 2:35 PM
Dan Campbell says:

This is not realistic. Design often begins with just the GDR logs and perhaps the draft logs from the initial borings, but before the lab testing is completing. "Preliminary" and "Final" memos should be able to use draft logs. Certainly the logs should be final for and RFC submittal.

Jim Cuthbertson says:

We want the designs for RFC elements to be based on finalized borings and finalized lab tests. How about? line 4 ...used as the basis for design of RFC elements.

Meeting Response : Jim C to modify similar to inserted language "of RFC elements"

Comment [jlb18]: Apr 3, 2015 2:33 PM
Dan Campbell says:

It is the policy of many geotechnical companies to destroy the field logs after the final logs are prepared. This is based on legal advice that any conflict between the two can be used in court to discredit the data and the whole of the geotechnical engineering services.

Jim Cuthbertson says:

This says nothing about field logs.

Meeting Response: No change

Comment [jlb19]: Apr 3, 2015 2:38 PM
Dan Campbell says:

The test results should be included with the RFC calculations package, but it is not reasonable from a schedule standpoint to hold off on calculations package submittals for the preliminary and final submittals until all lab testing is complete.

Jim Cuthbertson says:

This does not say you have to have them for draft or preliminary, but you do need them for the RFC package. At least that was our intent.

Meeting Response: Final Geotechnical Documentation Package is a name of a submittal defined later - no change

and liquefaction induced settlements as required by the Mandatory Standards and the requirements in this RFP.

Soil materials described on the boring logs included in the GDR as peats, organic soils, or soils containing organics shall be assumed to be susceptible to liquefaction unless liquefaction analysis or laboratory test results show otherwise.

Geotechnical seismic design shall consider the reduction in strength of soils below a depth of 80 feet due to cyclic ground motions.

Retaining walls supporting other structures (including noise walls) shall be designed for liquefaction conditions regardless of the individual wall heights.

A Peer Review shall be performed if the Design-Builder implements any of the following design procedures in the geotechnical seismic design:

- Site specific hazard analysis.
- Total and effective stress site specific response analysis.
- Selection of seismic ground motions used for site specific response analysis or deformation analysis.
- Dynamic soil structure interaction modeling for geotechnical seismic design.
- Ground improvement.
- Any other proposed analysis methods that are not addressed in the Mandatory Standards or in the RFP.

A Peer Review is not required if the Design-Builder uses ground motions based on the General Procedure in the *AASHTO Guide Specifications for LRFD Seismic Bridge Design*, simplified procedures for liquefaction analysis, empirical lateral spreading methods, and site specific maps listed in the *AASHTO Guide Specifications for LRFD Seismic Bridge Design*, GDM, BDM, and other Mandatory Standards. If a site specific response analysis is required by the *AASHTO Guide Specifications for LRFD Seismic Bridge Design* or other Mandatory Standards based on the Site conditions, a Peer Review shall be performed.

The Peer Reviewer shall be selected by the Design-Builder. The Design-Builder shall provide a submittal to WSDOT demonstrating how the Peer Reviewer meets the required qualifications defined in the General Provisions.

The Peer Reviewer shall focus on the following aspects of the seismic design and analysis:

- Geotechnical data collected and reasonableness of the assumptions made by the Design-Builder to develop the geologic and geotechnical models used in the analyses.
- Soil and structure input parameters used by the Design-Builder in the ground response and soil-structure interaction response analyses.
- Computer software used by the Design-Builder for ground response and soil-structure interaction with respect to the ability of the software and constitutive models to incorporate non-linear soil effects, pre- and post-liquefaction stress-strain-strength relations, non-linear structure effects, and modeling methodology.
- Interpreted results and conclusions used by the Design-Builder for design.
- Appropriate combination of seismic inertial loading, kinematic inertial effects, and liquefied/reduced soil strength.

Comment [ET20]: Jim C will provide the modified language that stays in template and is not project specific.

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Comment [jlb21]: Apr 3, 2015 2:45 PM
Dan Campbell says:

Assuming that peats and organic silts liquefy is overly directive and in many cases completely wrong based on the definition of liquefaction.

Meeting Response: Some of this is project specific and not part of template- Jim C to revise for template.

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Comment [jlb22]: Apr 2, 2015 2:40 PM
Phil Larson says:

The GDM does not provide guidance on methodology to reduce soil strengths for this. Should we be asking the Design Builder to create this methodology? If WSDOT did not like the Design Builder's approach how would it be resolved?

Jim Cuthbertson says:

This is one where we are being flexible and non prescriptive on purpose. From a contract admin issue it does pose a problem for us as owners if we do not "like" what the DB does. We really can't make DB do something different if we don't like what he doing. So for the DB...maybe that is ok. It certainly has the potential to cause some angst. I am open to suggestions

Meeting Response: Jim C. to provide language that stays, remove project specific language not needed.- same as above

Comment [jlb23]: Apr 3, 2015 2:47 PM
Dan Campbell says:

Why not have WSDOT by the peer reviewer?

Jim Cuthbertson says:

No. No desire to go there. Too much potential for conflict of interest.

Meeting Response: No change

Comment [jlb24]: Apr 3, 2015 3:00 PM
Dan Campbell says:

Shouldn't similar requirements be made of the geotechnical designer? Selection of the peer reviewer is a sensitive area. For instance, the City of Seattle uses peer reviewers outside the area so that local competitors in a market are not reviewing each other's work. The exception is if the local peer reviewer does not compete in the same market.

Meeting Response: Not change in language but take Bridge out of peer review definition in Chapter 1

All technical reports, memorandums, calculations, and communications issued between the Design-Builder and the Peer Reviewer shall be simultaneously copied to the WSDOT Engineer for Review and Comment. The WSDOT Engineer shall be invited to attend all meetings between the Design-Builder and the Peer Reviewer. WSDOT shall have the opportunity to Review and Comment on the Peer Review prior to reconciliation of any of the Peer Reviewer's comments. The Design-Builder shall be responsible to address all comments made by the Peer Reviewer to the Peer Reviewer's satisfaction.

Upon completion of the Peer Review, the Peer Reviewer shall provide a memorandum or letter stamped and signed with the Peer Reviewer's Washington Professional Engineers stamp stating that the Design-Builder has satisfactorily addressed all comments on the items reviewed prior to the Design-Builder's final implementation of the design, and shall include a list of the documents, including the document date, reviewed by the Peer Reviewer. This memorandum shall be included as an appendix in the RFC geotechnical report(s) and in all technical memoranda that contain geotechnical recommendations that were subject to Peer Review.

2.6.6.2 FOUNDATION DESIGN

The Design-Builder shall meet the structure foundation design and performance requirements described in Section 2.13.

2.6.6.3 RETAINING WALL AND NOISE WALL DESIGN

Regardless of wall type (noise wall or retaining wall), the Design-Builder shall be responsible for all geometric design of walls. The Design-Builder shall also be responsible for evaluating bearing resistance, settlement, differential settlement, sliding, eccentricity, and overall stability. Generally the Design-Builder will not be responsible for internal design or structural design of walls if Standard Plan walls or Preapproved Proprietary retaining walls are used. However, special designed walls (noise or retaining) or Preapproved Proprietary walls that need to be designed for compound stability may require the Design-Builder to do all geotechnical design including internal stability and possibly structural design.

All WSDOT Standard Plan noise walls are designed for specific soil strengths and ground conditions. The GDM, the BDM, and the Standard Plans identify those conditions. If the Project soil conditions are such that the minimum strength and geometry conditions are not met for use of a Standard Plan noise wall, a specially designed noise wall is required or the soil conditions and geometry must be modified such that standard plan noise walls can be used.

Standard Plan walls and Standard Plan noise walls are not designed for liquefaction or liquefaction effects. Liquefiable soils may require the Design-Builder to specially design retaining walls and noise walls. The policy regarding liquefaction for retaining walls is contained in the GDM. Noise walls that have the potential to collapse onto the traveled way shall be designed for liquefied soil conditions.

All noise walls shall be designed in accordance with the GDM.

When evaluating pseudo static overall slope stability (often referred to as global stability) for seismic conditions involving a noise wall, with or without liquefaction, the Design-Builder shall evaluate the impacts of failure of the noise wall and slope system. If collapse is likely during the design seismic event (i.e., does not meet minimum slope stability level of safety requirements during seismic loading in accordance with Sections 6.4.2 and 6.4.3 of the GDM), and if that collapse is likely to cause loss of life or severe injury to the

Comment [Jlb25]: Mar 21, 2015 2:40 PM
Frank Young says:

2.6.6.3, line 28
Who determines if this added design is needed. May should be either required or not. Please clarify.

Comment [Jlb26]: Mar 23, 2015 11:12 AM
Jim Cuthbertson says:

The geotechnical engineer who is doing the design for the Wall. In this case it would be the DB

Meeting Response: No Change

Comment [Jlb27]: Apr 2, 2015 2:42 PM
Phil Larson says:

Section 2.6.6.3
The language in 3rd paragraph "Noise walls that have the potential to collapse onto the traveled way shall be designed for liquefied soil conditions" and 6th paragraph "relatively low risk of causing loss of life..." has added confusion to this project. Better language would be something like this:

"Noise walls located in areas with potentially liquefiable soils shall be founded on drilled shafts, with the shaft design length a sufficient depth to ensure that the presence of the noise wall does not decrease the overall slope stability factor of safety by more than 0.05 for seismic and post-liquefaction conditions."

This would ensure that the design meets life safety.

Jim Cuthbertson says:

We do not want to specify shafts. There are other means of making things stable, but we agree the text and intent can be clarified.

Meeting Response- Jim C is going to revise language

Comment [Jlb28]: Apr 3, 2015 3:05 PM
Dan Campbell says:

These are two different things. Not meeting the required factor of safety (1.1 for example) is not the same as collapse. Perhaps a more appropriate approach would be to say that the deformation/performance and potential for collapse needs to be evaluated if the safety factor is less than the prescribed limits.

Meeting Response: See response to Comment 27

public, the stability of the noise wall and slope shall be improved such that the life safety of the public during the design seismic event is preserved.

Noise walls on seismically unstable or marginally stable slopes may not require stabilization if the placement of the noise wall within the seismically unstable or marginally stable slope has a minor effect on the seismic stability of the slope, and if the wall has a relatively low risk of causing loss of life or severe injury to the public if wall collapse occurs. In this case, the presence of the noise wall shall not decrease the overall slope stability factor of safety by more than 0.05. If the reduction is greater than 0.05, the stability of the noise wall and slope shall be improved such that the life safety of the public is preserved.

All noise walls contained in the Standard Plans were designed following the 2007 edition of the *AASHTO Standard Specifications for Highway Bridges* using 475-year event earthquakes with maximum peak seismic ground acceleration coefficients (A_S) equal to 0.35 g. Current seismic design standards in the *AASHTO Mandatory Standards* for 975-year events will likely result in ground acceleration coefficients that exceed the 0.35 g value used for the Standard Plans. Standard Plan noise walls may be used by the Design-Builder even though ground acceleration at the Project may exceed the Standard Plan acceleration.

All specially designed noise walls shall meet the requirements in the *AASHTO LRFD Bridge Design Specifications* including the provisions of the current *AASHTO Guide Specifications for LRFD Seismic Bridge Design*.

The WSDOT Bridge and Structures Office has designed two noise walls meeting the AASHTO LRFD design requirements. Those walls were intended to be published as Standard Plans and the Design-Builder may utilize them as if they were Standard Plans. The wall designs for Type 11 and Type 14 Noise Barriers are contained in the *WSDOT Bridge and Structures Office Design Memoranda*. These walls have not been designed for liquefaction. The technical requirements above regarding liquefaction for noise walls shall also apply to these noise walls.

2.6.6.3.1 Structural Earth Retaining Walls

If the Design-Builder selects Structural Earth (SE) Walls, they shall be pre-approved proprietary walls. If pre-approved proprietary walls as detailed in Chapter 15 and the Chapter 15 Appendices of the GDM cannot be used, special designed SE walls may be used. Special designed proprietary SE walls of the same pre-approved systems do not require special approval from WSDOT. However, if the Design-Builder wants to use wall systems other than those that have been pre-approved, the Designer-Builder shall request approval from the WSDOT Engineer. The Design-Builder shall obtain approval before using a non-pre-approved system.

SE wall manufacturer submittals shall be reviewed by the EOR for consistency with the geotechnical recommendations for the wall.

2.6.6.3.2 Nonstandard, Nonproprietary Walls and Temporary Walls

The Design-Builder shall be responsible for all geotechnical and structural design of nonstandard, nonproprietary noise walls; nonstandard, nonproprietary retaining walls; and temporary walls including shoring and cofferdams.

Comment [jlb29]: Referenced in comment jlb27 (page 2.6-8, lines 36-37).

Meeting Response: See response to Comment 27

Comment [ET30]:

Meeting Response This is not project specific

Teresa to make a note to PE – check to make sure this is still current requirement

2.6.6.4 SLOPE DESIGN AND ROCK CUTS (TEMPORARY AND PERMANENT)

All temporary and permanent slopes, including reinforced slopes and rock cuts, shall be designed in accordance with the design criteria as specified in the GDM.

2.6.6.5 FOUNDATION DESIGN FOR SIGNALS, ILLUMINATION, CANTILEVER SIGNS, SIGN BRIDGES, TOLL GANTRIES, VMS, TRS, ITS, AND RAMP METERS

All standard foundations for new noise walls, cantilevered signals, strain poles, cantilevered signs, sign bridges, Toll Gantries, and luminaires shall be evaluated in accordance with the GDM. The standard foundation designs provided in the Standard Plans shall be used if the minimum applicable soil and slope conditions are present at the Site. The standard foundation designs provided in the Standard Plans shall meet or exceed the minimum size and depth for the soil and slope conditions. If soil/rock or ground conditions are not suitable for standard plan foundations, or if nonstandard loadings are present at the Site, site-specific analysis and special foundation design shall be completed. Design of these foundation elements shall be performed in accordance with the *AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals*.

Where new foundations will be constructed for noise walls, cantilever signals, strain poles, cantilever signs, sign bridges, ITS cameras, VMS, TRS, Toll Gantries, ramp meters, and luminaires, no exploration points are required if the foundation(s) will be constructed entirely within roadway fill placed and compacted as part of this Project, bridge approach embankments, or structure backfill placed and compacted in accordance with Method B or Method C in Section 2-03.3(14)C of the Standard Specifications as part of this Project. Foundations placed in existing fill not placed and compacted as part of the Project shall be explored.

Unless otherwise specified within this Section, exploration points for noise walls, cantilever signals, strain poles, cantilever signs, sign bridges, ITS cameras, VMS, TRS, Toll Gantries, ramp meters, and luminaires shall be located within 10 feet of the planned center of foundation. Exploration point depth shall be no less than 5 feet below the maximum expected depth (bottom elevation) of the foundation. The distance between the exploration point and the foundation may be extended to a distance of no more than 75 feet if the following conditions are met:

- Conditions can be confirmed to be uniform between the exploration point and the foundation location through field review by the Engineer of Record;
- The exploration point is no more than 75 feet from the referenced foundation; and
- The depth of the exploration point extends a minimum of 5 feet below the expected depth of the referenced foundation.

2.6.6.6 GROUND IMPROVEMENT

Design of ground improvement or ground replacement measures selected by the Design-Builder shall be accomplished in accordance with the design requirements of the GDM. The ground improvement or ground replacement design shall include a monitoring and testing program to be implemented during construction to confirm the performance of the ground improvement or to verify ground replacement design parameters are achieved during construction.

Comment [jlb31]: Apr 3, 2015 3:07 PM
Dan Campbell says:

Noise walls should be added from the title, or since noise walls are also described elsewhere, the reference to noise walls could be removed from 2.6.6.5 Line 23.

Jim Cuthbertson says:
This text is intentionally prescriptive.

Comment [jlb32]: Referenced in comment jlb30 (page 2.6-10, lines 1-2).

Meeting Response -Take references to noise walls out

Comment [jlb33]: Apr 3, 2015 3:10 PM
Dan Campbell says:

Requiring explorations because the fill is not placed as part of this project is overly prescriptive. Depending upon the documentation for the existing fill embankment, it may be reasonable to conclude the embankment was constructed to the appropriate specifications.

Jim Cuthbertson says:
WSDOT has a lot of fills that have been constructed over many years; often with very little documentation or quality control. We won't know if the fill is loose until it is explored. We want older fills explored as part of the design process. Prescriptive yes. Prudent yes. A point of negotiation via DBIC process possibly.

Comment [jlb34]: Apr 2, 2015 2:43 PM
Phil Larson says:

2.6.6.5
The 10 foot exploration spacing is way too prescriptive and takes professional judgment away from the project, particularly where there is existing embankment fill. Explorations should be completed for the larger structures, such as high mast poles, cantilever signs and sign bridges, but not for every ITS or luminaire. Even a 75 foot spacing is too

Comment [jlb35]: Apr 3, 2015 3:20 PM
Dan Campbell says:

I agree. An exploration at each location, particularly for the smaller features, as a blanket statement is overly conservative and costly. Consider if these structures are located in a cut area or in locations mapped as glacially over consolidated deposits--even 75 feet away is overkill. The geotechnical engineer of record should be allowed to use some professional judgment.

Comment [jlb36]: Apr 14, 2015 8:57 AM
Jim Cuthbertson says:

Read GDM 17.1.2 and 17.1.3. Exploration does not necessarily equal a boring. I feel we have given you quite a bit of latitude to use judgment.

Meeting Response: See response to Comment 33

2.6.6.7 SETTLEMENT

The Design-Builder shall evaluate and quantify primary and secondary settlement for all embankments, bridge approach embankments, structures, and Utilities as part of the design process. The Design-Builder shall ensure that structures and Utilities are designed to tolerate the anticipated settlements and satisfy all settlement requirements and limits contained in the Mandatory Standards and the RFP. Post-construction settlement of the embankments and bridge approach embankments, including both primary and secondary settlement, shall be designed to not exceed 8 inches over the 75-year design life of the Project. Post-construction differential settlement of the widening of existing fills, including both primary and secondary settlement, as measured from the centerline of the existing embankment to the shoulder of the new embankment, shall be designed to not exceed 2 inches over the 75-year design life of the Project. The 8-inch and 2-inch limits required herein are to meet geotechnical design requirements. More stringent settlement limits may be necessary to meet performance requirements for other Project elements as required elsewhere in the RFP or as required by the Design-Builder.

2.6.7 CONSTRUCTION CRITERIA

2.6.7.1 PERFORMANCE CRITERIA

Criteria for allowable settlement and horizontal deformation of the retaining wall structures and bridge foundations are provided in Sections 2.13, the GDM, and the BDM. If any ground settlement occurs that is in excess of allowable limits, the Design-Builder shall cease all activities in the immediate area until the situation is fully assessed by the Design-Builder. The Design-Builder shall immediately contact WSDOT informing them of the situation. Before the Design-Builder returns to work in the immediate area of ground settlement, the Design-Builder shall implement stabilization measures to ensure further settlement is minimized. The Design-Builder shall provide a submittal of the ground stabilization measures with supporting calculations to the WSDOT Engineer for Review and Comment.

2.6.7.2 SLOPE STABILITY AND PROTECTION

The Design-Builder shall be responsible for slope stability throughout the Project. If any landslides develop during construction, or if indicators of potential landslide activity appear, such as ground cracking, leaning trees, or slumping, as well as other descriptors included in the referenced documents and in Chapter 13 of the GDM, the Design-Builder shall cease all activities in the immediate area within and around the unstable ground until the situation is fully assessed by the Design-Builder. Before the Design-Builder returns to work in the immediate area of unstable ground, the Design-Builder shall implement temporary slope stabilization measures to ensure the safety of the public and the Design-Builder's personnel, and to limit damage to WSDOT facilities and adjacent properties. The Design-Builder shall immediately contact WSDOT informing them of the situation and shall reach an agreement with the WSDOT Engineer on the temporary stabilization measures the Design-Builder plans to implement. Permanent slope stabilization measures shall be designed and constructed by the Design-Builder and provided in a separate submittal to the WSDOT Engineer for Review and Comment. The Design-Builder shall resolve all comments prior to implementation of the permanent slope stabilization measures.

2.6.7.3 PRE-CONDITION SURVEY

For buildings not owned by WSDOT, adjacent structures, and other sensitive facilities including private residences, businesses, city streets, and utilities within the Project vicinity, the Design-Builder shall conduct a pre-condition survey prior to the start of Work that occurs within 500 feet of the affected adjacent structure, utility, or sensitive facility. This survey shall include video or photographic documentation of internal and external building walls and foundations.

2.6.7.4 FILLS, RETAINING WALLS, AND REINFORCED SLOPES

Embankment fills, bridge approach embankments, retaining walls, and reinforced soil slopes shall be monitored for settlement as required in the GIP. All estimates of primary consolidation settlement made during the design phase shall be field verified with instrumentation. The settlement monitoring data shall be provided to the GGM, the EOR for the Work, and to the WSDOT Engineer for Review and Comment. The EOR shall review the settlement monitoring data and provide final approval prior to the placement of final pavement overlays and new drainage structures located within the footprint and the zone of influence (as defined in Section 2.6.7.6) of the new fills, retaining walls, and reinforced soil slopes. The final approval shall be in the form of a memorandum sealed, stamped by a Professional Engineer, licensed in the State of Washington under Title 18 RCW.

2.6.7.5 GEOTECHNICAL INSTRUMENTATION THRESHOLD AND CRITICAL LEVELS

The construction procedures and requirements identified in the GIP shall be implemented if the recorded data from geotechnical instrumentation meets or exceeds the thresholds or critical levels identified. The Design-Builder shall notify the WSDOT Engineer in writing within 24 hours that a threshold or critical level has been measured by instrumentation. The Design-Builder shall notify the WSDOT Engineer in writing within 24 hours of implementing the corrective action plan identified in the GIP.

2.6.7.6 GEOTECHNICAL MONITORING OF SENSITIVE FACILITIES

The Design-Builder shall identify locations of sensitive facilities and shall prepare a GIP to monitor sensitive facilities. As part of the preparation of the GIP, the Design-Builder shall establish threshold and critical instrumentation reading levels for the proposed construction instrumentation. The analysis performed by the Design-Builder to determine the threshold and critical instrumentation reading levels shall take into account the allowable limits for all of the existing structures and Utilities in the vicinity of the proposed construction.

Where existing and proposed facilities are located on settlement-sensitive or soft ground, the Design-Builder shall install instrumentation to monitor settlements of structures, utilities, and other features within the zone of influence of embankment fill or groundwater dewatering, depressurization, or both. For embankments, the zone of influence shall be defined as a zone extending a minimum horizontal distance from the toe of the embankment, where the minimum horizontal distance is the height of the embankment. For retaining walls, the zone of influence shall be defined as a zone extending from the toe of the footing, to a minimum horizontal distance of twice the height of the wall.

Where impact or vibratory methods are permitted for the installation of shaft casings or driving piles, vibration monitoring shall be conducted within 100 feet of the shaft casing/pile driving operations or further if required by the GIP. The Design-Builder shall

Comment [jlb37]: Mar 30, 2015 2:14 PM
Frank Young says:

2.6.7.3, line 15
What happens if a ROE can't be provided by WSDOT or obtained from property owner

Meeting Response – if ROE refused, documentation provided by Design-Builder

1 cease vibration-inducing operations when vibration-recording equipment indicates that
2 vibration levels exceed potentially damaging levels established in the GIP.

3 **2.6.8 SPECIAL INSPECTION**

4 **2.6.8.1 GENERAL**

5 The Design-Builder shall perform special inspections and provide documentation during
6 construction of the geotechnical types of Work listed in this Section. Documentation,
7 requirements, and the frequency of special inspections shall be in accordance with the
8 requirements of this Section and the Mandatory Standards. Inspections shall be performed
9 by a GSI unless otherwise noted herein. Special inspections performed by a QA Inspection
10 Technician shall be under the direct supervision of the GSI. Inspection documentation
11 prepared by a QA Inspection Technician shall be reviewed for completeness and accuracy
12 by the GSI within the next work shift. All documentation prepared by the GSI or prepared
13 for the GSI, shall be finalized and copies provided to the GGM and EOR within seven
14 Calendar Days through the Project Quality Manager, the CQAM, and the Design QA
15 Manager. All non-conforming Work shall immediately be reported in accordance with the
16 QMP to the Construction QA Manager, the Design QA Manager, the GGM, and the EOR.

17 **2.6.8.2 ELEMENTS REQUIRING SPECIAL INSPECTION**

18 Both temporary and permanent Project elements listed in this Section shall be inspected
19 and documented at the frequencies noted below. Additional geotechnical special
20 inspection may be required by the EOR and shall be referenced in the GSIP.

21 **Soil Bearing Verification – Special Inspection - Periodic**

22 For structures, materials at the bearing elevation shall be inspected to ensure that the
23 materials meet the design and construction requirements. The GSI shall document
24 observations regarding soil type, moisture conditions, and groundwater conditions as
25 encountered at the bearing elevation in the associated excavation.

26 **Deep Foundations, Casings, and Sheet Piles – Special Inspection - Continuous**

27 For deep foundations, the GSI, or a QA Inspection Technician under the supervision of a
28 GSI, shall inspect the Work to ensure that acceptance criteria are achieved.

29 For driven elements, including casings installed by vibration, impact, twisting, rotation, or
30 oscillation, the GSI, or a QA Inspection Technician under the supervision of a GSI, shall
31 observe and document the installation including: the methods used; equipment and
32 appurtenances used, conditions of the bottom of drilled shaft, and equipment operational
33 parameters. The rate of advancement shall be noted at a minimum every half hour and the
34 timing and duration of all stoppages shall be documented, including the reason for the
35 stoppage.

36 For drilled elements or elements constructed with grabs, chisels, and down-hole hammers,
37 the GSI, or a QA Inspection Technician under the supervision of a GSI, shall observe and
38 document the installation including: the methods used; materials and ground water
39 conditions encountered; equipment and appurtenances used; equipment operational
40 parameters; methods used to control loss of ground, groundwater intrusion, heave, and
41 caving; and penetration and tip elevation. The rate of advancement shall be noted at a
42 minimum every half hour and the timing and duration of all stoppages shall be
43 documented, including the reason for the stoppage.

44 **Field Testing – Special Inspection - Continuous**

The following field tests shall be performed under the direction of a GSI, or a QA Inspection Technician under the supervision of a GSI:

- All verification, performance, and proof tests of soil nails (all types), ground anchors (all types), pin piles, and micropiles.
- Testing for pile acceptance or drivability, including pile driving analyzer (PDA), pile integrity testing (PIT), pile load tests, and statnamic tests.
- Testing for shaft acceptance including crosshole sonic log (CSL), Tomography, Thermal Integrity, PIT, Osterberg cell tests, load tests, and statnamic tests.
- Plate load tests.

Soldier Piles, Ground Anchors, Soil Nails, Micropiles – Special Inspection - Continuous

The following shall be observed, verified, and documented by a GSI, or a QA Inspection Technician under the supervision of a GSI:

- Types and locations of soil/rock units encountered during construction;
- Groundwater conditions during drilling; the types of equipment used to drill;
- The drilling methods used, methods to remove cuttings from the hole, spoil volumes, rates of advancement and daily production rates;
- Hole stability during construction and the use of casings;
- Cleanliness of the bottom of drill hole;
- Types, lengths, and dimensions of steel section, bars, tendons, and permanent casings placed in drilled holes;
- Volumes and locations of control density fill (CDF), concrete, and grout placed; and
- Caving or heave noted during construction.

Grouting Operations – Special Inspection - Continuous

The GSI, or a QA Inspection Technician under the supervision of a GSI, shall verify and document design compliance of grout types used, mix designs, and batching/mixing equipment; and monitor and record grout pressures and takes. The report may be prepared by the GSI or a representative of either QC or QA. The GSI shall review the information on a daily basis and the document shall be certified as complete and accurate.

Ground Improvement – Special Inspection - Continuous

Ground improvement methods and performance requirements are Work-specific. Accordingly, identifying geotechnical special inspection requirements shall be the responsibility of the Design-Builder and referenced in the GSIP.

Dewatering System Construction – Special Inspection - Continuous

Dewatering systems, methods, and performance requirements are Work-specific. Accordingly, the GSI, or a QA Inspection Technician under the supervision of a GSI, shall observe, verify, and document the following:

- Types and locations of soil/rock units encountered during construction of dewatering systems;

Comment [Jlb38]: Apr 3, 2015 2:49 PM
Eric Ostfeld says:

Add language to clarify the intent of this section.

[Jim Cuthbertson](#) says:

It is our intent that the designer of record for the system will be augmenting the inspection requirements lines 25 and 26 and providing any additional clarification above and beyond the base RFP requirements.

Meeting Response: No Change

- Groundwater conditions observed during system construction, and at the completion of construction for system components;
- Drilling methods used, methods to remove cuttings from drill holes, spoil volumes, rates of advancement and daily production rates;
- Hole stability during construction and the use of casings and screens;
- Types, lengths, and dimensions of system components installed;
- Volumes and locations of the various materials placed in wells, well points, and other system components;
- Details of well development;
- Water quantity and quality information;
- Quantities and types of CDF, concrete, grout, sand, and bentonite placed;
- Note all instrumentation installed and the appropriate calibration factors for the equipment, if applicable; and
- Caving or heave noted during construction.

Additional geotechnical specific inspection requirements shall be the responsibility of the Design-Builder and referenced in the GSIP.

Dewatering System Operation and Maintenance – Special Inspection - Periodic

The GSI, or a QA Inspection Technician under the supervision of a GSI, shall verify and document that regular maintenance is occurring and shall record observations of pumping rates and discharge quantities. If groundwater monitoring is being performed, the GSI shall ensure the instrumentation is being monitored and reported as required; and monitor instrumentation, if required.

Trenchless Technology (including directional drilling, micro-tunneling, ramming, jacking) – Special Inspection - Continuous

Trenchless technology methods and performance requirements are Work-specific. Accordingly, the GSI shall observe, verify, and document the following:

- Types and locations of soil/rock units encountered during construction;
- Groundwater conditions during construction; the types, methods, and operational parameters of the equipment used for construction;
- Drilling methods used, methods to remove cuttings from the hole, spoil volumes, rates of advancement and daily production rates;
- Hole stability during construction and the use of casings, grouts, lubricants, and fillers;
- Types, lengths, and dimensions of system components installed;
- Quantities and types of CDF, concrete, grout, sand, and bentonite placed;
- All instrumentation installed;
- Appropriate calibration factors for the equipment, if applicable;
- Caving, heave, or ground loss during construction; and

- All deviations from planned alignment, grade, and orientation.
- Additional geotechnical specific inspection requirements shall be the responsibility of the Design-Builder and referenced in the GSIP.

2.6.9 SUBMITTALS

2.6.9.1 GENERAL

All scheduled submittals, including those pertaining to field design changes, shall be submitted to WSDOT for Review and Comment in accordance with the requirements of Section 2.12 and 2.28.

Project geotechnical submittals include, but are not limited to, the following:

- Subsurface Investigation Plan (SIP);
- Technical Memoranda and supporting calculations;
- Geotechnical Instrumentation Plan (GIP);
- Settlement and Vibration Monitoring Plan, if applicable;
- Geotechnical Report(s);
- Shoring Plan;
- Dewatering Plan;
- Corrective Action Plan;
- Repair Plan;
- Geotechnical Special Inspection Plan (GSIP);
- Final Geotechnical Documentation Package;
- Calculations Verification Submittal (CVS);
- Peer Reviewer Qualifications;
- All technical reports, memorandums, calculations, and communications issued between the Design-Builder and the Peer Reviewer;
- Pre-Condition Survey; and
- Soil Properties for Design.

2.6.9.2 CALCULATIONS VERIFICATION SUBMITTAL (CVS)

All geotechnical calculations using commercial spreadsheets or math software shall be checked with hand calculations to verify logic, look-ups, formulae, and calculations. Off-the-shelf, commercially available, certified geotechnical software will not require a hand calculation validation. However, the CVS shall identify the name and version of all geotechnical software to be used in the design. All spreadsheets and math software used for performing bearing calculations, pile or shaft capacity calculations, settlement, permeability, standard penetration test corrections, liquefaction calculations, or other calculations developed by the Design-Builder shall be submitted in a CVS format. Example problems shall be developed by the Design-Builder and the solutions from the

spreadsheets, math software, or both used to solve the problems shall be validated with hand calculations. All formulae used shall be documented with references (data sources).

The CVS shall be developed during design, and shall be submitted to the WSDOT Engineer prior to use on the Project. Multiple CVS submittals will be permitted if the Design-Builder chooses to implement a new spreadsheet, math software, or both for performing calculations. Each one shall be submitted to the WSDOT Engineer prior to use on the Project. The Design-Builder shall provide documentation in the CVS submittal(s) that demonstrates the formulae in the approved spreadsheets and math software cannot be modified or changed. Any modification to the logic, look-ups, formulae, and calculations of an approved program shall be re-submitted to the WSDOT Engineer for Review and Comment.

2.6.9.3 SUBSURFACE INVESTIGATION PLAN (SIP)

The Design-Builder shall create a Subsurface Investigation Plan (SIP) to supplement information provided in the GDR. Additional explorations (as determined necessary by the Design-Builder and to meet the requirements of the Mandatory Standards and this RFP) shall occur at bridge foundation locations, along the alignment of planned retaining walls, at cuts and fills greater than or equal to 5 feet in height, building structures, noise walls, culverts, signs, signals, luminaires, Toll Gantries, ramp meters, cantilever signs, sign bridges, fish passage culverts, ground improvement, and stormwater treatment detention and infiltration facilities.

The investigation shall be conducted in accordance with the GDM and the exploration requirements identified in this RFP. The Design-Builder shall determine the specific locations, frequency, and scope of the SIP. In addition, the Design-Builder shall perform geotechnical investigations at locations of stormwater infiltration, treatment detention ponds, wetlands, infiltration ditches, and structures as specified in the HRM.

The SIP shall be submitted to the WSDOT Engineer for Review and Comment prior to commencement of subsurface exploration, including drilling, excavating, and any other earthwork. This submittal shall include the number and depths of the proposed borings/CPT, test pits, and other field investigations, and the proposed sampling and testing necessary to meet the minimum requirements of the Project and as required by the GDM and HRM. The submittal shall include a narrative of the reasons for the exploration and goals to be achieved. Instrumentation such as piezometers and slope inclinometers to be used for design and construction monitoring purposes shall also be included in the GIP as described in this Section.

The investigation can be performed in stages and the specific information for the field explorations, in addition to the SIP information listed above, can be provided in field exploration work plans. If the Design-Builder does not use field exploration work plans, all of the following information shall be included in the SIP submittal prior to performing explorations. Field exploration work plans shall include the following:

- Proposed exploration type and location;
- Instrumentation to be installed in explorations and installation procedures;
- Maintenance of Traffic Plan, showing conflicts or encroachments upon the proposed exploration locations or installation procedures;
- Site access plans and right of entry permits;

Comment [jlb39]: Apr 3, 2015 2:52 PM
Eric Ostfeld says:

Section 2.6.9.2 - too prescriptive. Let D-B identify software validation process in QMS.

Jim Cuthbertson says:

It is our intent that the designer of record for the system will be augmenting the inspection requirements lines 25 and 26 and providing any additional clarification above and beyond the base RFP requirements.

Meeting Response – Jims will add language to all use of spreadsheet/software from other DB projects if not changed

- Environmental considerations (spoil containment and removal) and best management practices plan;
 - Schedule;
 - Utility locate information; and
 - Emergency procedures and contacts.
- Soil properties shall be determined in accordance with the GDM. Field tests shall be conducted in accordance with appropriate AASHTO and WSDOT testing procedures, methods, and standards.

2.6.9.4 GEOTECHNICAL INSTRUMENTATION PLAN (GIP)

The Design-Builder shall develop, implement, and maintain a documented GIP to satisfy design and quality control requirements. The GIP shall be prepared and submitted to the WSDOT Engineer for Review and Comment before deploying any geotechnical instrumentation. The GIP will need to be coordinated with and support the SIP. The Design-Builder shall install geotechnical instrumentation where necessary to monitor parameters, such as the following:

- Settlement and settlement rates of embankments and structures;
- Pore water pressures;
- Groundwater levels;
- Stability of walls and slopes; and
- Ground vibration.

The GIP shall identify zones of influence (as defined in Section 2.6.7.6), instrumentation types, critical readings, and frequency of readings. The tolerable levels of vibration, settlement, and deformation of sensitive facilities shall be established as performance criteria in the GIP and the instrumentation program shall provide a means of monitoring the field conditions and comparing those conditions to the performance criteria established in the GIP. The GIP shall include reporting requirements for all instrumentation monitoring and reporting. These requirements shall include, but not be limited to, the following:

- Frequency of monitoring (for all instruments).
- Identify the personnel (with their qualifications) who will perform the monitoring.
- Frequency and schedule (elapsed time after measurement) of initial instrumentation data reporting.
- Format of the data in the initial instrumentation data report.
- Required review of the initial instrumentation data report by the GGM.
- Schedule and format of the GGM's review of the initial instrumentation data report.
- Schedule and format of the final (and any interim) summary instrumentation data report(s).
- Schedule and format of the GGM's review of the final data (and any interim) summary instrumentation data report(s).

Comment [jlb40]: Apr 2, 2015 2:46 PM
Phil Larson says:

2.6.9.4 - General Comment

The intent of the GIP submittal is good, but the challenge is that some of the information required in the GIP is dependent on the results of the design (threshold values, performance criteria, etc.), which is not available or even started because the GIP is required as part of the SIP. This results in preparing and submitting a GIP that is incomplete and requires multiple addendums. Examples are:

- Installation of instrumentation (piezometers/VWPs and/or inclinometers) in explorations but then requiring that the GIP provide performance criteria and threshold values for these instruments before the design has even begun.
- Developing corrective action plans for construction issues that may arise, before the analysis and design has begun.

Comment [jlb41]: Apr 3, 2015 3:25 PM
Dan Campbell says:

I agree. The vast majority of the elements in the GIP are for evaluating the performance of the elements being constructed; there isn't sufficient detail at the time of the SIP to accurately include this information. I suggest that instrumentation associated with the exploration program (primarily monitoring wells and piezometers) be decoupled from the GIP.

Comment [jlb42]: Apr 14, 2015 8:52 AM
Jim Cuthbertson says:

In reality there isn't one single GIP, but the current wording would lead one to that conclusion. Essentially what we want is a plan for each element that requires monitoring. Many of those plans won't be developed until the element is in the design phase or just before RFC. We just want a shot at reviewing the instrumentation plan and requirements.

Meeting Response – decouple exploration piece – instrumentation should be documented within the subsurface exploration plan. Revised language provided from the Jim's

The GIP shall contain the requirement that all instruments shall be installed and operated in conformance to the manufacturer's requirements. The manufacturer's minimum calibration requirements for the instrumentation systems shall be maintained at all times during the monitoring program. Instruments that fail for any reason of nonperformance shall be replaced with acceptable instruments immediately. If the instrumentation cannot be replaced immediately, construction activities which were monitored by this instrumentation shall cease until the instrumentation is replaced and fully operable. New instruments shall be correlated with the previously acceptable data from the replaced instruments to develop continuous plots of instrumentation data, but with an arrow and note indicating the date of replacement on each instrument plot and data table.

The GIP shall identify critical instrument readings and threshold levels as well as maximum allowable levels for all instrumentation. Corrective action plans to be taken if threshold levels are reached shall be prepared. If threshold levels are reached the procedures to be followed shall be identified. These procedures shall include, but not be limited to the following steps:

- Providing the data and the report that a threshold level has been reached to the EOR.
- Documenting that this has been provided.
- Increasing the frequency of data collection, installing additional instrumentation, or providing additional monitoring in the event of noted abnormal monitoring data, in the event of construction-induced damage, or in the event that additional data is needed to monitor the integrity of adjacent structures and utilities.
- Implementing the appropriate corrective action plan.
- Verifying the success of the corrective action plan and notifying the EOR.
- Requiring the EOR to prepare a report presenting the data, the evaluation of the data, the corrective action plan, and the results of the corrective action plan.

The GIP shall identify steps to be taken if corrective action plans do not work and the instrument readings reach a critical level. These steps shall include, but not be limited to the following:

- Cease all related operations contributing to the critical instrument readings.
- Notify the EOR.
- Revise corrective action plan.
- Provide written or electronic copy of revised corrective action plan to the WSDOT Engineer for review.
- Require the Work that resulted in the critical instrument readings shall not resume until receiving the EOR's approval of the revised work plan.
- Implement the revised corrective action plan.
- Identify that under some circumstances, corrective actions may require modification of design or construction procedures.
- Require that if the approved revised Work plan does not reduce the value to below the critical instrument readings, all related operations contributing to the critical

Comment [Jlb43]: Apr 2, 2015 2:10 PM
Marek Bednarczyk says:

PG 20, line 8; delete "to" before word below

instrument reading shall cease and the process of developing a revised work plan shall be repeated.

2.6.9.5 SOIL PROPERTIES FOR DESIGN

Prior to beginning design, the Design-Builder shall review the GDR, and based on the GDR, the Design-Builder shall define the Engineering Stratigraphic Units (ESU's) to be used for design. The Design-Builder shall determine the soil properties for each ESU in accordance with the GDM, and shall submit the soil properties to be used for design to the WSDOT Engineer for Review and Comment. The submittal shall clearly demonstrate how the Design-Builder arrived at conclusions about the soil properties for each engineering soil unit. The Design-Builder shall not begin design until all comments regarding the soil properties for design have been resolved. The submitted soil properties shall be used for all geotechnical design including all design changes during construction.

During the course of the Project, the Design-Builder will likely obtain additional information through field exploration, laboratory testing, or back analysis which could require changes to the previously submitted soil properties. Should this occur; the Design-Builder shall revise the soil properties for design and resubmit the soil properties to the WSDOT Engineer. Any changes to the soil properties for an ESU shall be carried forward in all calculation packages that postdate the change.

2.6.9.6 GEOTECHNICAL SPECIAL INSPECTION PLAN (GSIP)

The Design-Builder shall develop, implement, and maintain a documented GSIP intended to validate geotechnical design assumptions and requirements of the Work through inspection and documentation. The GSIP shall be submitted to the WSDOT Engineer for Review and Comment prior to commencement of the plan. The GSIP shall be included in the Design-Builder's QMP and shall include items requiring special inspection as detailed in this Section. The following shall be included in the GSIP:

- Qualifications and expertise of firms/corporations providing special inspection services, including the following items:
 - A listing of firms and how they meet the minimum requirements in this Section;
 - List the type(s) of expertise of each firm;
 - Provide an organization chart of the proposed team and include the respective roles that each firm will provide for the team.
- Qualifications and expertise of individuals providing special inspection services, including the following items:
 - Individuals providing special inspection services and show how they meet the minimum requirements in this Section.
 - If licensed, provide the license information for the individual.
 - An itemized list of special inspection items or elements to be inspected while performing the Work to satisfy the requirements of this Section and Section 2.28.
- Identify Hold Points in accordance with Section 2.28.

Comment [jlb44]: Apr 2, 2015 2:48 PM
Phil Larson says:

2.6.9.5 Soil Properties for Design

This memo is by far the most challenging and really defeats the intent of design-build. Design-build projects are successful if you can break a project into pieces, and then design and construct those pieces. This memo requires that you develop all soil properties for the project before design occurs. But you really can't define soil properties until all of the explorations have been completed. This pushes the design schedule out at least 2-3 months from contract award because the SIP/GIP need to RFC'd, then the explorations need to be completed and laboratory testing completed, then the Soil Properties for Design can be completed.

The information that is requested should be included in the individual/specific structure design memorandums rather than in a comprehensive Soil Properties for Design memorandum.

Comment [jlb45]: Apr 3, 2015 3:29 PM
Dan Campbell says:

I agree. It is important that the design soil parameters be explicitly stated in each design memo and calculations package, but as currently written this requirement (design soil properties for the entire project) is a schedule killer.

Comment [jlb46]: Apr 14, 2015 8:47 AM
Jim Cuthbertson says:

There is probably room for improvement here. We need to discuss this at the meeting. It really was our intent to get common understanding and acceptance of design properties early in the project so we could avoid lengthy arguments about design properties when you are trying get an RFC package out the door. We wanted to do our "negotiating" early in the job to avoid conflicts later. Let's discuss how best to do that.

Meeting Response – revised language from the Jim's and Dan C. Teresa to set up Lync

2.6.9.7 FINAL GEOTECHNICAL DOCUMENTATION PACKAGE

The Design-Builder shall prepare a Final Geotechnical Documentation Package that summarizes the results of the field testing, all instrumentation data, laboratory results, engineering studies, and geotechnical design recommendations, including those provided in technical memoranda. The Final Geotechnical Documentation Package shall include the stamp of a Professional Engineer, licensed in the State of Washington under Title 18 RCW.

The Final Geotechnical Documentation Package shall include all instrumentation data and field notes/photographs collected for design and construction-related purposes.

The Final Geotechnical Documentation Package shall be provided with all supporting calculation packages cross referenced to individual sections so that it can be easily determined which calculation packages apply to which section(s) or design elements.

The Final Geotechnical Documentation Package shall be submitted with the Final Design Documents in accordance with Section 2.12. This package shall also be provided in electronic format (pdf).

End of Section

WSDOT/AGC/ACEC DESIGN-BUILD TEAM MEETING Meeting Minutes

May 28, 2015

1:00 pm to 4:00 pm

WSDOT Corson Ave Office, Conf. Rm. 204

6431 Corson Avenue South, Seattle, WA

No Teleconference line requested

Co-Chairs Scotty Ireland and Paul Mayo (Teresa Eckard subbing for Scotty)

AGENDA ITEMS:

1. Sign-In Sheet/Open the meeting / Introductions

Teresa / Paul/All

Attendees:

| Type | Member | Organization | Phone | E-mail |
|-------|---------------------------------|-------------------|--------------|--|
| O | Adams, Bob ² | Atkinson Constr. | 425-255-7551 | bob.adams@atkn.com |
| WSDOT | Barry, Ed | WSDOT-HQ DN | 206-805-2924 | barryed@wsdot.wa.gov |
| AGC | Bednarczyk, Marek | Graham Constr. | 206-729-8844 | marekb@grahamus.com |
| WSDOT | Boutwell, Jami | WSDOT-NWR 405 | 425-456-8504 | boutwej@wsdot.wa.gov |
| ACEC | Campbell, Dan | GeoEngineers | 425-861-6094 | dcampbell@geoengineers.com |
| WSDOT | Clarke, Brenden | WSDOT - OR | 360-357-2606 | clarkeb@wsdot.wa.gov |
| WSDOT | Eckard, Teresa | WSDOT-HQ CN | 360-705-7908 | eckardt@wsdot.wa.gov |
| WSDOT | Jepperson, Omar | WSDOT-NWR 405 | 425-456-8610 | jepperO@wsdot.wa.gov |
| AGC | Larson, Phil | Atkinson | 425-508-6718 | phil.larson@atkn.com |
| AGC | Mayo, Paul ¹ | Flatiron Corp | 425-508-7713 | pmayo@flatironcorp.com |
| WSDOT | McNabb, Gil | WSDOT-NWR 405 | 425-456-8643 | mcnabbg@wsdot.wa.gov |
| WSDOT | Mizuhata, Julia | WSDOT-NWR 520 | 425-576-7059 | MizuhaJ@wsdot.wa.gov |
| ACEC | Ostfeld, Eric | Parsons | 206-643-4269 | Eric.ostfeld@parsons.com |
| ACEC | Patterson, Richard ³ | Bucklund & Taylor | 206-321-6655 | rdpn@b-t.com |
| AGC | Pindras, Greg | Max J. Kuney | 509-535-0651 | gregg@maxkuney.com |
| ACEC | Rohila, Manish | Rohila Consulting | 425-246-1749 | manish@rohilaconsulting.com |
| AGC | Young, Frank | Kiewit | 206-295-8735 | frank.young@kiewit.com |

Guests

| Attendee | Organization | Phone | E-mail |
|---------------|--------------|--------------|--|
| John Collins | WSDOT | 206-595-7456 | collijt@wsdot.wa.gov |
| Denys Tak | WSDOT | 360-705-7833 | takd@wsdot.wa.gov |
| Mannie Barnes | Atkinson | 425-508-7849 | Mannie.barnes@atkn.com |
| Bonnie Nau | WSDOT | 206-440-4471 | naub@wsdot.wa.gov |

A. Safety Briefing

Teresa briefly gave a reminder of the evacuation plan and restroom locations.

B. Review and Update Sign-In Sheet

This item was skipped

2. Review Previous Meeting Minutes

All

The April 16th DRAFT meeting minutes were distributed to the Team on 5/6/2015. After incorporating comments, they were finalized and posted to the website on 5/21/2015. Meeting minutes are located at:

<http://www.wsdot.wa.gov/Business/Construction/MeetingMinutes.htm>

3. Old Business

- A. 2015 Topic/Meeting Date Completion – Confirm subject matter experts (SME's)

Teresa/Paul/All

This item was deferred to the end of the meeting – then deleted

- B. Chapter 2 Section 2.13 and 2.6 draft template update

Teresa/All

This item was deferred to the end of the meeting – then deleted

- C. Design-Build Discussion Topics

1. Overview of changes from comments on DBE language

Teresa/Denys/All

This item was deferred to almost the end of the meeting. Teresa described the items that were changed due to the comments received on the DB-DBE language 1st Draft. Anthony Sarhan with FHWA conferenced in and briefly described that FHWA was looking for improved language to address the DBE issues with DB projects. Denys Tak briefly stated that WSDOT will monitor DBE performance and adjust the program to reflect it.

4. New Business

- A. Chapter 2 Technical Review Comments

1. Section 2.10 Utilities and Relocation

Teresa/All

This item was moved to after 2.22. WSDOT's SME had to leave before the end of the meeting and this section was not completed with his input. Meeting responses are on the attached Section 2.10 with tracked changes

2. Section 2.22 Maintenance of Traffic

Teresa/All

WSDOT's SME had to leave before the end of the meeting but this section comments were discussed before she had to leave. Meeting responses are on the attached Section 2.10 with tracked changes

- B. Project Delivery Method Selection Guidance Overview

Teresa

We were unable to run the PowerPoint in the meeting due to lack of time. There was some discussion on the importance of the PDMSG. Bob Adams had concerns that this would need to be done quickly due to the DB Committee that was part of the Transportation package.

Paul asked what the status of the PDMSG was. Teresa had concerns because the team was having difficulties meeting recently and it had slowed progress, but the intent is to review the draft document at or before the next WSDOT/AGC/ACEC DB Committee meeting (July 9th).

5. Future Meeting Highlights (These items were not discussed)

- A. A pre-qualification list for DB teams on Small Projects
- B. Upset Price and Best Value
- C. P3's on WSDOT projects

6. Review and Expand Action Items

All

| Subject | Item Description | Due Date | Responsible | Status | Completion Date |
|--------------------------------------|--|----------------|---|-------------|-----------------|
| Draft DB DBE Language | 1 st Draft of revised language – depending on finalization of DBB language with FHWA | April 14, 2015 | WSDOT- Teresa | Completed | April 15, 2015 |
| Draft DB DBE Language | Committee Review Draft DBE language on TheHub | May 8, 2015 | All | Completed | May 8, 2015 |
| Chapter 2 Sections | Committee Review Sections 2.22 and 2.10 on TheHub. DB Chapter 1 Section 1-07.17 will be emailed for reference. | May 21, 2015 | All | Completed | May 21, 2015 |
| Review Process | Revise committee review process for Chapter 2 sections and add flow chart | April 30, 2015 | WSDOT- Teresa | Completed | May 5, 2015 |
| Small DB Pilot Project Report | Report Corrected and Reposted | May 8, 2015 | WSDOT- Teresa | Completed | May 18, 2015 |
| Chapter 2 Sections | Subject Matter Experts for WSDOT, AGC and ACEC added to the Meeting/Topic sheet | April 16, 2015 | ACEC–Richard Patterson WSDOT-Scotty/Teresa AGC - Paul | In progress | |

7. Future Meetings:

All

Location: We will be meeting at the Corson Ave Project Office, **Conference Room 119/121**

The address is:

6431 Corson Avenue South
Seattle, WA 98108

Future meeting dates:

July 9, 2015 - **Conference Room 119/121**
September 10, 2015 - **Conference Room 119/121**
October 22, 2015 - **Conference Room 119/121**
December 3, 2015 - **Conference Room 119/121**

Any planned changes to the programed meeting dates will occur at least one week prior to the meeting.

Conference Call-In: Consistency in representation is important to the Team's success. If a member is not able to attend, a conference call line will be made available for the meeting if requested in advance.

2.22 MAINTENANCE OF TRAFFIC (MOT)

2.22.1 GENERAL

The Design-Builder shall conduct all Work necessary to meet the requirements associated with maintenance of traffic (MOT), including providing for the safe and efficient movement of people, goods, and services through and around the Project, while minimizing negative impacts to residents, commuters, and businesses.

The Design-Builder shall prepare a Traffic Management Plan (TMP), a Traffic Incident Management Plan (TIMP), MOT Plans, and shall conduct all on-Site activities relating to traffic maintenance in accordance with this Section.

The Design-Builder shall be responsible for coordinating with other projects within the vicinity of the Project, including but not limited to, scheduling of lane closures, detours, ramp closures, temporary alignments, and phasing of construction activity. Construction activities shall be scheduled to minimize the number of required closures and to maximize the opportunities available to perform Work during closures required by other projects.

~~The Design-Builder shall not schedule or perform activities that will impede or hinder the progress and schedule of other projects.~~
coordinate and schedule activities to minimize impact on other projects.

Refer to Section 2.1 for projects anticipated to be under construction at the same time as the Project. The Design-Builder shall coordinate with Local Agencies and utility companies to identify other projects scheduled for construction during the duration of the Project.

2.22.2 MANDATORY STANDARDS

The following is a list of Mandatory Standards that shall be followed for all design and construction related to this Section. They are listed in hierarchical order, where the Mandatory Standards listed higher in the list shall take precedence over those listed below them. If a Mandatory Standard contains a reference to another document that is not listed below and states that the referenced document shall be used, the referenced document shall also be considered to be a Mandatory Standard with the same hierarchical precedence as the source publication. This is not a comprehensive list; other applicable standards may be required to complete the design and construction. If the Design-Builder becomes aware of any ambiguities or conflicts relating in any way to the Mandatory Standards, the Design-Builder shall immediately notify the WSDOT Engineer.

- Special Provisions (Appendix B).
- *Amendments to the Standard Specifications* (Appendix B).
- Standard Specifications (Appendix B).
- *WSDOT Design Manual* (M22-01) (Appendix D).
- Standard Plans* (Appendix D).
- *WSDOT Traffic Manual* (M51-02) (Appendix D).
- *Washington State Modifications to the Manual on Uniform Traffic Control Devices* WAC 468-95 (Appendix D).

Comment [j1b1]: May 4, 2015 12:23 PM Frank Young says:
section 2.22.1 Line 15 and 16 Delete lines 15 and 16 and replace with; Design Builder shall coordinate and schedule activities to minimize impact on other projects.

Comment [j1b2]: May 26, 2015 10:44 AM Bonnie Nau says:
concur

- U.S. Access Board Revised Draft Guidelines for Accessible Public Rights-of-Way, November 2005 (Appendix D).
- WSDOT Materials Manual (M46-01) (Appendix D).
- WSDOT Construction Manual (M41-01) (Appendix D).
- WSDOT Sign Fabrication Manual (M55-05) (Appendix D).
- WSDOT Plans Preparation Manual (M22-31) (Appendix D).
- WSDOT Maintenance Manual (M51-01) (Appendix D).
- WSDOT Work Zone Traffic Control Guidelines (M54-44) (Appendix D).
- Speed Limit Reduction in Work Zone, WSDOT Secretary's Executive Order E 1060.00 (Appendix T).
- Work Zone Safety and Mobility, WSDOT Secretary's Executive Order E 1001.01 (Appendix T).
- FHWA Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD), 2009 Edition with Revisions 1 and 2 dated May 2012 (Appendix D).
- FHWA NCHRP Report 350: Devices in Work Zones, February 2004, Revised April 2004.
- AASHTO A Policy on Design Standards - Interstate System.
- AASHTO A Policy on Geometric Design of Highways and Streets.
- AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, 5th Edition, 2009.
- AASHTO Roadside Design Guide.
- Transportation Research Board Highway Capacity Manual.
- ITE Traffic Control Devices Handbook.
- FHWA Traffic Control Systems Handbook.
- FHWA Traffic Monitoring Guide.
- FHWA Developing and Implementing Transportation Management Plans for Work Zones.
- ITE Traffic Engineering Handbook, 6th Edition.
- ITE Manual of Transportation Engineering Studies.
- ATSSA Quality Guidelines for Work Zone Traffic Control Devices.
- US Access Board ADA Accessibility Guideline (ADAAG).
- FHWA Final Rule on Work Zone Safety and Mobility (23 CFR Part 630 Subpart J).

* Section K is not for use on the Project. Site-specific MOT Plans are required.

2.22.2.1 CONFORMANCE TO ESTABLISHED STANDARDS

Flagging, signs, and all other traffic control devices and procedures provided by the Design-Builder shall conform to the standards established in the MUTCD, the Washington

Comment [j1b3]: As of Oct. 2014, WSDOT has not adopted more recent editions of this manual. Verify current WSDOT-ADOPTED version with region traffic office.

Comment [j1b4]: As of Oct. 2014, WSDOT has not adopted more recent editions of this manual. Verify current WSDOT-ADOPTED version with region traffic office.

Comment [j1b5]: As of Oct. 2014, WSDOT has not adopted more recent editions of this manual. Verify current WSDOT-ADOPTED version with the HQ Bridge office.

State Modifications to the Manual on Uniform Traffic Control Devices, and the FHWA Final Rule on Work Zone Safety and Mobility. The quality of devices provided shall be based on the ATSSA Quality Guidelines for Work Zone Traffic Control Devices.

In addition to the standards described above, WSDOT has scheduled the implementation of crashworthiness requirements for most Work zone devices. The FHWA NCHRP Report 350: Devices in Work Zones has established requirements for crash testing. Work zone devices are divided into four categories. Each of those categories and the schedule for implementation, where applicable, is described below:

- Category 1 includes those items that are small and lightweight, channelizing, and delineating that have been in common use for many years and are known to be crashworthy through testing of similar devices, or years of demonstrable safe performance. These devices include cones, tubular markers, flexible delineator posts, and plastic drums. All Category 1 devices used on the Project shall meet the requirements of the FHWA NCHRP Report 350: Devices in Work Zones as certified by the manufacturers of the devices.
- Category 2 includes devices that are not expected to produce significant vehicular velocity change, but may otherwise be hazardous. Examples of this class are barricades, portable sign supports and signs, intrusion alarms, and vertical panels. All Category 2 devices shall meet the requirements of the FHWA NCHRP Report 350: Devices in Work Zones. For the purpose of definition, a sign support and sign shall be considered a single unit.
- Category 3 is for hardware expected to cause significant velocity changes or other potentially harmful reactions to impacting vehicles. Examples of this class are barriers, fixed sign supports, crash cushions, transportable attenuators (TA), and other Work zone devices not meeting the definitions of Categories 1 or 2. Many Category 3 devices are defined in the design of the Project. Where this is the case, the requirements of FHWA NCHRP Report 350: Devices in Work Zones shall be incorporated into the design. Where the device is a product chosen by the Design-Builder, the device chosen shall comply with the requirements of the FHWA NCHRP Report 350: Devices in Work Zones.
- Category 4 includes portable or trailer-mounted devices such as arrow displays, temporary traffic signals, area lighting supports, and portable changeable message signs (PCMS). Presently, there is no implementation schedule for mandatory crashworthiness compliance of these devices.

The condition of signs and traffic control devices shall be new or "acceptable" as defined in the ATSSA Quality Guidelines for Work Zone Traffic Control Devices, and will be accepted based on a visual inspection by the Traffic Control Supervisor (TCS). WSDOT may also identify devices that are unacceptable based on the ATSSA Quality Guidelines for Work Zone Traffic Control Devices. WSDOT's decision on the condition of a sign or traffic control device will be final. The Design-Builder shall remove and replace a sign or traffic control device determined to be unacceptable within 12 hours of notification.

2.22.3 PERFORMANCE REQUIREMENTS

2.22.3.1 GENERAL

The Design-Builder shall prepare a TMP and a TIMP to be approved by WSDOT, and establish a MOT Task Force prior to any construction activity that may impact traffic.

Comment [j1b6]: May 19, 2015 7:51 AM Eric Ostfeld says:
Line 37-39: provide justification for a traffic control device being "unacceptable". Deemed unsafe is a good reason. Assuming all previous conditions are met this is highly subjective so some tangible measure would be helpful.

Comment [j1b7]: May 26, 2015 10:52 AM Bonnie Nau says:
This would basically require a re-write of the ATSSA Quality Guidelines for Work Zone Traffic Control Devices, which WSDOT does not have control of. The Guide is a visual guide based on comparing field condition to the photos. The photos in the guidelines note which conditions are acceptable, marginal, and unacceptable. This section of the RFP is stating that acceptable devices are ones that meet the definition of "Acceptable" in the Quality Guidelines for Work Zones.

Response – link WSDOT to guideline – Bonnie, see my proposed change to language

WSDOT may permit shoulder closures for activities such as surveying or environmental and other design-related Work prior to approval of the TMP and the TIMP, provided the Design-Builder prepares MOT Plans in accordance with the requirements of this Section. The Design-Builder shall make changes to the TMP and TIMP any time the personnel or conditions of the original TMP or TIMP change. MOT Plans that are within the jurisdiction of the ***Insert Cities/Counties*** will require approval from the affected Local Agency.

Comment [j1b8]: Fill in

2.22.3.2 TRAFFIC MANAGEMENT PLAN (TMP)

The Design-Builder shall develop a TMP that includes the items from the *Transportation Management Plan Checklist* (Appendix T), and the following items:

- Descriptions of traffic phasing, including conceptual MOT Plans, to accommodate construction staging.
- Descriptions of the requirements for temporary roadways.
- Procedures to identify and incorporate the needs of transit operators, Utility Owners, schools, and business owners in the Project corridor.
- Procedures for obtaining concurrence of stakeholders and implementing road and lane closures.
- Processes for developing and obtaining agreement among stakeholders for switching procedures.
- Procedures to identify and incorporate the needs of Local Agencies affected by the Work.
- Processes for signing transitions during construction from one stage to the next, and from interim to permanent signing.
- Procedures to identify and incorporate the needs of emergency service providers, law enforcement entities, and other related corridor users. The Design-Builder shall also include procedures to ensure all information required by these agencies to protect the public is made available.
- Provisions for incident and emergency response.
- Processes to identify, produce, and receive acceptance for designs of temporary traffic signals.
- Methods and frequency of inspection and maintenance of all traffic control throughout the Project limits, including response times to correct, modify, or implement changes to pavement marking, signing, temporary lane configurations, and changes in temporary concrete barrier (TCB) configurations.
- Descriptions of contact methods, personnel available, and response times for any conditions requiring attention during off-hours. Include a communications plan to ***insert region-specific department [WSDOT's Seattle radio]*** and field offices.
- Identification of measurable limits for the repair and replacement of traffic control devices, including pavement markings.

Comment [j1b9]: Region-specific.

- Processes to determine the need for revised traffic signal timings, and if revisions are required, detail the procedures for the development, approval, implementation, testing, and maintenance of all affected signals.
- Provisions to maintain existing access to all properties within the Project limits for the duration of the Project, except as provided by other Sections.
- Procedures to modify existing access within Project limits.
- Provisions to provide continuous access to established truck routes, hazardous material routes, transit routes, and school bus routes.
- Procedures to modify the plans as needed to adapt to current Project circumstances.
- Procedures to determine detour routes, and for obtaining acceptance from all stakeholders for all proposed detour routes. The Design-Builder shall identify special needs for emergency service providers, transit service, and truck routes.
- Procedures to communicate MOT information to the Design-Builder's communications personnel, and to notify the public of MOT issues in accordance with Section 2.9.
- Procedures to accommodate adjacent project's MOT Plans, if applicable.
- Procedures to accommodate the MOT Plans when the staging schedule of the Project or any adjacent project changes.
- Identify haul routes.

2.22.3.3 TRAFFIC INCIDENT MANAGEMENT PLAN (TIMP)

During construction, MOT will become increasingly sensitive to incidents such as equipment malfunctions, traffic crashes, inclement weather, and special events. The Design-Builder shall prepare and implement a formal TIMP to address how these incidents shall be managed.

2.22.3.3.1 General

The TIMP shall identify methods for immediate incident detection and verification, response, site management, clearance, and motorist information. The TIMP shall include procedures for interaction with the ***Insert region-specific department [Northwest Region Traffic Management Center (TMC) in Shoreline, WA]***. In addition, if any Local Agencies along the Project corridor have adopted incident management guidelines, the Design-Builder shall be responsible for coordinating with local policies and procedures.

The TIMP shall reflect proposed construction phasing. The Design-Builder shall modify and implement the TIMP in conjunction with planned special events. The TIMP shall include specific time limits for the detection, verification, and classification of incidents, as well as for the dissemination of information about the incidents. The TIMP shall provide a mechanism to review and capture lessons learned from incidents.

The TIMP shall identify and provide for the incorporation of design elements to aid incident management, including turn-around for emergency vehicles, emergency access points, incident investigation Sites, and signing to help motorists report the location of incidents in the Project.

Comment [Jlb10]: Region-specific.

2.22.3.3.2 Incident Response Team

Immediately upon detection, the Design-Builder shall notify the TMC of any vehicles blocking traffic lanes, disabled vehicles on shoulders, or debris or animal carcasses on the roadway that may present a traffic hazard to the public or cause traffic to deviate from normal traffic pattern. The Design-Builder will not be required to provide additional Incident Response Team equipment or personnel; however, the Design-Builder shall make materials and equipment available that are on-Site as requested by WSDOT or the Washington State Patrol.

2.22.3.3.3 Drop Sites

The Design-Builder shall identify a minimum of two drop sites within the vicinity of the Project where disabled vehicles can be safely towed off the freeway and motorists can be assisted. A phone and shelter shall be available at the drop sites for motorists to use. The drop sites may be retail establishments, such as a gas station or a repair shop, and shall be located within 1 mile of the Project limits.

2.22.3.3.4 Temporary Emergency Pullouts

Temporary emergency pullouts shall be provided on segments where shoulder widths are less than 8 feet for sections longer than 4,000 feet in length. The minimum emergency pullout width shall be 14 feet from the edge line for a minimum of 150 feet in length, not including transitions. The approach transitions shall be made at 15:1 or greater. The departure transitions shall be made at 25:1 or greater. The emergency pullouts shall have a paved surface, and shall not be subject to ponding or other weather-related conditions that could render them ineffective. Emergency pullouts shall be located on the right side of the travel lanes. Advance signing shall be provided 0.25 mile in advance of the approach transition, and an R8-7 "Emergency Stopping Only" sign shall be installed adjacent to the emergency pullout.

2.22.3.3.5 Emergency Vehicle Access

The Design-Builder shall provide coordination with local and regional emergency service providers, law enforcement entities, and other related corridor users including timely communication of lane closure plans, detour plans, and other Project elements that may affect the appropriate delivery of time-sensitive services. Emergency vehicle access shall be maintained through all nighttime, weekend, and evening closures.

Refer to Section 2.9 for additional requirements.

2.22.3.3.6 Maintain Camera Surveillance

Refer to Section 2.18 for maintenance requirements of the closed circuit television system during construction.

2.22.3.3.7 Variable Message Signs (VMS)

Refer to Section 2.18 for maintenance requirements of the existing VMS.

Existing VMS approaching the Project may be used, with WSDOT's concurrence, to provide motorists with incident and construction-related information prior to entering the Work zone. VMS shall not be used in lieu of PCMS as the primary messaging tool. The Design-Builder shall coordinate with the ***insert region-specific department [Northwest Region TMC]*** to provide timely, accurate information regarding planned closures and

Comment [jlb11]: May 5, 2015 7:19 AM Phil Larson says:

2.22.3.3.4 - This should not be part of the template. Existing roads may not have 8' pullouts.

Comment [jlb12]: May 26, 2015 10:55 AM Bonnie Nau says:

There needs to be a trigger for designers of inclusion of pull-outs. It has typically been used on freeway applications. Possibly provide when to use guidance note for this one similar to what WSDOT does for design-bid-build special provisions.

Comment [ET13]: Use if applicable

Coordinate with CCTO Office if pullouts applicable

Comment [jlb14]: Region-specific

updated traffic and construction information. Refer to Section 2.9 for additional requirements.

The Design-Builder shall also provide PCMS to provide information to motorists, in accordance with this Section.

2.22.3.3.8 Highway Advisory Radio (HAR)

A portable HAR may be provided and operated by WSDOT. The Design-Builder shall provide and maintain signing for a portable HAR when requested by WSDOT.

The Design-Builder shall coordinate with the ***insert region-specific department [TMC]*** to provide timely, accurate information regarding planned closures and updated traffic and construction information.

Comment [Jlb15]: Region-specific

Refer to Section 2.9 for additional requirements.

2.22.3.3.9 Design-Builder Response Time

The Design-Builder shall have a TCS on-call or on-Site equipped with a mobile phone that can respond to and take appropriate action to manage an emergency situation. The TCS shall be on-Site within ***45 minutes*** of notification of an emergency situation, in accordance with this Section. Upon arrival, the TCS shall have the experience, resources, and equipment required to set up temporary traffic control, if necessary. This may include closing lanes, ramps, setting up detours, and replacing or repairing TCB.

Comment [Jlb16]: Verify - Time should be appropriate for project location.

2.22.3.4 MOT TASK FORCE MEETINGS

The Design-Builder shall establish and chair an MOT Task Force, which shall include Design-Builder personnel and personnel from WSDOT; the ***[insert cities, counties and known applicable agencies [example: Cities of Auburn, Algona, Edgewood, Pacific, Sumner, and Kent; King County; Pierce County; Cascade Bicycle Club; local school districts; the Toll Vendor]***; and other agencies that are affected by the MOT Plans.

Comment [Jlb17]: Fill in

The MOT Task Force will serve as an advisory committee to the Design-Builder. The Design-Builder shall consider all recommendations and input provided by the task force; however, final design and implementation remain the responsibility of the Design-Builder.

The Design-Builder shall schedule and chair MOT task force meetings twice each month from Contract execution to Substantial Completion. The meeting schedule and frequency of meetings may be adjusted upon agreement by the MOT task force members.

The purpose of the meetings shall be to achieve the following:

- Further refine and develop the MOT plans and strategies;
- Review the Design-Builder's MOT details;
- Disseminate Project MOT information to task force meeting attendees;
- Obtain MOT input from task force meeting attendees;
- Develop, refine, and review the TIMP and its implementation;
- Review the TCS log;
- Identify the need for improvements based on traffic control implemented previously;

- Discuss comments/complaints about traffic control from WSDOT and the public, and determine how they will be addressed;
 - Discuss Work zone related crashes and identify appropriate revisions to traffic control to prevent future crashes; and
 - Define the requirements for testing and operations of the HOT Lanes.
- The Design-Builder shall prepare the agenda, meeting minutes, exhibits, and design plans required for the meetings, and shall invite representatives from adjacent projects to the meetings.

2.22.4 DESIGN AND CONSTRUCTION REQUIREMENTS

2.22.4.1 WORK ZONE TRAFFIC ENGINEERING MANAGER

The Work Zone Traffic Engineering Manager (WTEM) shall be responsible for ensuring that the design of all elements related to construction phasing, Work zone safety, and Work zone traffic control are completed and all applicable design requirements are met. The WTEM shall be on-Site for the duration of the construction phasing and MOT Plan development. The WTEM shall also be available for approval of modifications to the phasing or MOT Plans through Substantial Completion. The WTEM shall be a Professional Engineer, registered in the State of Washington.

The WTEM shall have at least *****[three]***** years of recent Work zone and/or traffic engineering experience on complex, urban interstate projects in design and/or construction. The WTEM shall understand the concepts of traffic modeling and have experience designing construction phasing, Work zone safety, and Work zone traffic control.

The WTEM shall be responsible for the following design elements including, but not limited to:

- Detours;
- Phasing and MOT Plans; and
- Temporary plans for signals, Intelligent Transportation Systems (ITS), lighting, signing, and striping.

2.22.4.2 MOT PLANS

The Design-Builder shall use the procedures in the TMP to develop detailed Site-specific MOT Plans that provide for all construction stages and phasing, and identify opportunities to expedite construction throughout the course of the Project. The MOT Plans shall be prepared under the direction of the Design-Builder's WTEM.

All construction signs, flaggers, spotters, and other traffic control devices shall be shown on the MOT Plans, except for emergency situations. Where mainline MOT Plans are developed with the intent of operating without the use of flaggers or spotters, the MOT Plans shall include a note that states, "NO FLAGGERS OR SPOTTERS". The use of flaggers or spotters will not be allowed, except when no other means of traffic control can be used, or in the event of an emergency. The MOT Plans shall show locations of all required advance warning signs, and a safe, protected location for the flagging station. If flagging is to be performed during hours of darkness, the MOT Plans shall require a minimum of 150W illumination for the flagging station.

Comment [jlb18]: May 19, 2015 8:14 AM Eric Ostfeld says:
2.22.4.1 Lines 15-17: WTEM required on-Site for the duration seems excessive. Suggest be "available" and mandate review/hold points that need the WTEM sign-off prior to implementation.

Comment [jlb19]: May 26, 2015 10:59 AM Bonnie Nau says:
The WTEM is the check & balance for the project as it relates to MOT development, what is currently going on on the project, etc. Remotely sitting somewhere else - possibly another state - means they do not have intimate knowledge of what's going on for the project, field conditions, etc. For freeway projects, specifically, it is necessary they are placed based with the project.

Bonnie will review the language and modify

Comment [jlb20]: Adjust as necessary to meet the needs of the project.

The MOT Plans shall show the necessary construction signs, flaggers, spotters and other control devices required to support the Work. The Design-Builder shall be solely responsible for submitting proposed MOT Plans to WSDOT for Review and Comment; releasing the drawings for construction; and providing copies of the MOT Plans to the TCS.

MOT Plans shall include, but are not limited to, the following items:

- Complete plan sheets and details for all stages of construction.
- The appropriate details when temporary construction of traffic signals, detour roadways, bridges, retaining structures, drainage, and other miscellaneous construction is required to maintain traffic.
- Roadway plan sheets showing all existing traffic control devices that will be retained, relocated, or removed; and all temporary traffic control devices that will be installed, retained, relocated, or removed.
- The spacing, size, color (legend and background, if applicable), and quantity of all traffic control devices.
- Work areas including ingress and egress for construction vehicles.
- Roadway plan sheets with the location of each sign so it can be easily read in relation to the roadway and other traffic control devices. A small scale layout of each sign shall be shown on the corresponding roadway plan sheet where the sign is to be placed.
- Provisions for using temporary barriers and attenuators to satisfy clear zone requirements, and to protect the traveling public and the Design-Builder's personnel, including lateral displacement distance behind barrier.
- Temporary lighting, signalization, and ITS details, as required. The Design-Builder shall refer to [additional requirements described in this RFP including requirements listed in Chapter 2 Sections 2.15, 2.16 and 2.18](#).
- Layouts showing the locations of ground-mounted and overhead signs, special sign details, clear zones, and structural and foundation requirements.
- Drawings on how to fabricate any sign not detailed in the *WSDOT Sign Fabrication Manual* showing dimensions, background color, and legend.
- Methods for covering, partially covering, or modifying signs when not applicable to the current phase of construction.
- Striping, crosswalks, intersection details, and traffic delineators.
- Type and location of all pavement markings to be installed, removed, or renewed for each stage of construction; and locations of the final pavement markings.
- Typical cross-sections covering each change in configuration including, but not limited to, reduction in lane or shoulder widths; reduction or increase in number of lanes; and changes of lateral barrier placement or type. Cross-sections shall show lane configuration (including direction of travel) and widths, shoulder widths, lateral buffer distance behind barrier, Work areas, and pavement marking type. Cross-sections shall include the station limits the section applies to. Cross-sections shall be provided covering the entire length of the segment included in the MOT Plans.

Comment [Jlb21]: May 19, 2015 8:17 AM Eric Ostfeld says:

line 25 - provide a hint to where the other requirements may be in the RFP.

Comment [Jlb22]: May 26, 2015 11:00 AM

Bonnie Nau says:

I would agree with at least listing the Chapter

Add references but not exclusive- Bonnie, see my modified language – any additional sections you would like to reference?

Comment [Jlb23]: May 5, 2015 7:23 AM Phil Larson says:

2.22.4.2 2.22-9 35-42 This is not a typical practice of WSDOT in Bid-Build projects. Should we be spending out time showing every change in shoulder or lane width in a typical. Typical should be typical not every change.

Comment [Jlb24]: May 19, 2015 8:19 AM Eric Ostfeld says:

In lieu of x-sections, can a Civil 3D/InRoads model be provided?

Comment [Jlb25]: May 21, 2015 7:04 AM Jon Harris says:

These "Typical Section" should be as determined by the EOR. In past projects these often become a drafting exercise that add little to no value to the product.

Comment [Jlb26]: May 26, 2015 11:05 AM Bonnie Nau says:

Cross - sections on the MOT plans help the review process in identifying areas that shoulders have been reduced either by re-striping and shifting lanes or when temporary barrier is installed. When barrier is installed - the shy distance from fog to face of barrier and from back of barrier to work zone is clear in a cross-section as opposed to a tiny dimension note that typically does not show up.

Bonnie – Will consider discussion and a possible change to language

- Typical sections shall identify direction of travel, lane widths, lane type (general purpose, shoulder, HOV, HOT, or turn lane), and number of lanes.
- Access and control of bicyclists and pedestrians including persons with disabilities in accordance with the Americans with Disabilities Act of 1990 (ADA) through the traffic control zones.
- Detail modifications to the MOT Plans to address wintertime conditions or periods of suspended Work.
- A switching procedure for each traffic control stage change identified in the MOT Plans. The switching procedure shall consist of the methods, actions, and signing necessary to complete the switch and the number and duties of traffic personnel assigned to perform the switch.

The MOT Plans shall be complete. Typical traffic control configurations such as those found in the MUTCD and the *WSDOT Work Zone Traffic Control Guidelines* may be used to assist in developing the MOT Plans. Only Site-specific MOT Plans that have been Released for Construction shall be used by the Design-Builder. Typical plans are not acceptable unless incorporated as details into the MOT Plans.

The Design-Builder shall prepare documentation to justify all proposed road closures, detour routes, and reductions in lane storage at traffic signals or ramp meters. The documentation shall be submitted to WSDOT for Review and Comment with the proposed MOT Plans.

The Design-Builder shall maintain an updated log for the approved MOT Plans in the document control system. The log shall be available for WSDOT to review at any time.

***OPTIONAL: [Toll Vendor MOT Requirements

The Design-Builder is advised that WSDOT will enter into a contract with a Toll Vendor to provide and install Toll Equipment. Refer to Section 2.26 for additional requirements.

The Design-Builder is advised that the Toll Vendor will provide traffic control as needed for the Toll Vendor's activities after Toll Infrastructure Completion. The traffic control may include closing lanes or shoulders. After Toll Infrastructure Completion, the Toll Vendor will have priority for scheduling lane and shoulder closures.***

Design Vehicle

The design vehicle for the Project shall be a ***[Insert design vehicle [WB-67]]***. The Design-Builder shall evaluate traffic patterns and vehicle classifications to determine an appropriate design vehicle for each traffic control plan. Provisions for oversized vehicles shall be coordinated with WSDOT when detours or limited vertical clearance are required by the MOT Plans.

2.22.4.3 ALLOWABLE CLOSURES

This Section lists the allowable lane closure hours for the Project. Any restrictions for roadway segments not listed in this Section require WSDOT approval. No lane closures shall occur outside of the hours specified within this Section, unless approved in advance and in writing by WSDOT. The Design-Builder shall notify the public in advance of closures, in accordance with Section 2.9.

No temporary lane closures or restrictions, including set-up and removal of traffic control devices, will be allowed except during the hours permitted by this Section. In addition, no

Comment [jlb27]: May 5, 2015 7:25 AM Phil Larson says:
2-22-10 8-11 Typically this information is not provided on bid build projects. Why would it be needed for design build?

Comment [jlb28]: May 26, 2015 11:08 AM Bonnie Nau says:
The Builder is the primary party that coordinates with the local agencies, stakeholders, etc regarding MOT plans. They are the ones that get initial buy-in and it is important that they go back to the stakeholders when changes are made. Commonly the Builders initial TMPs do not reflect strong stakeholder communication and will not do so without these types of expectations placed.

Bonnie will clarify language on intent

Comment [jlb29]: Optional language, use if applicable.

Comment [jlb30]: Insert design vehicle

Work that restricts or interferes with traffic will be allowed from 12:00 p.m. on the day preceding through 12:00 p.m. on the day following a holiday or holiday weekend. Holidays that occur on Friday, Saturday, Sunday, or Monday are considered a holiday weekend. January 1, the third Monday of January, the third Monday of February, Memorial Day, July 4, Labor Day, November 11, Thanksgiving Day, the day after Thanksgiving, and Christmas Day shall be considered holidays. When any of these holidays fall on a Sunday, the following Monday shall be considered a holiday. When any of these holidays fall on a Saturday, the preceding Friday shall be considered a holiday.

The Design-Builder shall coordinate their Work activities with other local events in the area, so that the events will not be impacted. In addition, road, ramp, and lane closures will not be allowed during the following events:

- ***Insert local events [Examples:
- Annual Seafair Hydroplane Race Weekend from 12:00 p.m. Friday to 8:00 p.m. Sunday.
- Kent Cornucopia Days.
- Washington State Fair held at the Washington State Fairgrounds in Puyallup, WA.
- GoLive Date.]***
- The Design-Builder shall also identify any major event, such as a sporting event or any combination of events, with an anticipated combined attendance over *** insert attendance number and locations [Example: 5,000 at White River Amphitheatre or Pacific International Raceway]***, and adjust closure times to minimize the impact to traffic in accordance with Section 2.9. No traffic restrictions shall be implemented between two hours prior to and two hours after the end of events having a significant impact on traffic volumes.
- Additional limitations may be placed on traffic restrictions such as lane closures, ramp closures, and detours during the holiday period from November 15 of each year through January 2 of the following year. No shifts to traffic patterns of lane configurations, city street closures, or extended ramp closures shall be made during the holiday period unless approved by WSDOT Engineer.

Exceptions to the allowable lane closures may be necessary to accommodate wide loads or other permit loads through the temporary traffic control area. In addition, the Design-Builder shall coordinate with adjacent concurrent projects to provide continuity in the lane configurations.

WSDOT reserves the right to not approve traffic restrictions and freeway closures.

Liquidated damages will be assessed for failure to complete Work and open all lanes and ramps to traffic by the specified times, in accordance with Section 1-08 of the General Provisions.

2.22.4.3.1 Lane Closures

The Design-Builder shall maintain the existing configuration at all times outside of the allowable closures described in this Section, unless otherwise permitted in this Section.

Comment [Jlb31]: Work with Region Traffic to determine.

Comment [Jlb32]: Work with Region Traffic to determine.

Comment [Jlb33]: May 5, 2015 7:30 AM Phil Larson says:
2.22-11 25-29 Why restrict traffic switches during the holidays. This should be look at case by case and not included in the template.

Comment [Jlb34]: May 26, 2015 11:16 AM Bonnie Nau says:
Closures and Traffic switches are basically phase changes where lanes may be shifted from right to left or vice versa, and when major closure components may begin. These typically require major lane closures which is something that one does want to occur in sensitive areas such as cities. Cities are typically sensitive to anything that could perceptively affect holiday shopping. At minimum, there needs to be some guidance on when this is included. So, could be listed, but note that the Region Traffic Office should be contacted on when to use it. Or, in combination with the Area Engineering Manager or someone that is linked in with the different communities and aware of the concerns of the communities sensitivities in the vicinity.

Check in with region traffic office if applicable- Bonnie – see my comment below.

Comment [ET35]: Verify with Region Traffic Office that this section is applicable to the project

2.22.4.3.1.1 *[Southbound SR 167**

The Design-Builder shall open the HOV/HOT lane to all traffic when one or more general purpose lanes are closed. After the final lane configuration is in place and open, should the need arise for lane closures of one outside lane and two adjacent lanes, the row for one GP lane and one adjacent lane shall apply.

| S 277th St. to SR 18 (Existing Configuration: 3-lane section) | | | | |
|---|--|-----------|----------------------------------|-----------|
| Allowable Closure Times | Sunday Night to Monday Morning Monday Night to Tuesday Morning Tuesday Night to Wednesday Morning Wednesday Night to Thursday Morning Thursday Night to Friday Morning | | Saturday Night to Sunday Morning | |
| | From | To | From | To |
| HOV/HOT lane closed | 8:00 p.m. | 5:00 a.m. | 8:00 p.m. | 9:00 a.m. |
| HOV/HOT lane and adjacent lane closed | 11:00 p.m. | 5:00 a.m. | 11:59 p.m. | 8:00 a.m. |
| 1 GP lane closed | 8:00 p.m. | 5:00 a.m. | 8:00 p.m. | 9:00 a.m. |
| 1 GP lane and 1 adjacent lane closed | 11:00 p.m. | 5:00 a.m. | 11:59 p.m. | 8:00 a.m. |
| SR 18 to 8th St. E (Existing Configuration: 2-lane section) | | | | |
| Allowable Closure Times | Sunday Night to Monday Morning Monday Night to Tuesday Morning Tuesday Night to Wednesday Morning Wednesday Night to Thursday Morning Thursday Night to Friday Morning | | Saturday Night to Sunday Morning | |
| | From | To | From | To |
| 1 GP lane closed | 10:00 p.m. | 5:00 a.m. | 11:00 p.m. | 9:00 a.m. |
| SR 18 to 8th St. E (New Configuration: 3-lane section) | | | | |
| Allowable Closure Times | Sunday Night to Monday Morning Monday Night to Tuesday Morning Tuesday Night to Wednesday Morning Wednesday Night to Thursday Morning Thursday Night to Friday Morning | | Saturday Night to Sunday Morning | |
| | From | To | From | To |
| HOV/HOT lane closed | 8:00 p.m. | 5:00 a.m. | 8:00 p.m. | 9:00 a.m. |
| HOV/HOT lane and adjacent lane closed | 11:00 p.m. | 5:00 a.m. | 11:59 p.m. | 8:00 a.m. |
| 1 GP lane closed | 8:00 p.m. | 5:00 a.m. | 8:00 p.m. | 9:00 a.m. |
| 1 GP lane and 1 adjacent lane closed | 11:00 p.m. | 5:00 a.m. | 11:59 p.m. | 8:00 a.m. |

2.22.4.3.1.2 *[Northbound SR 167**

The Design-Builder shall open the HOV/HOT lane to all traffic when one or more general purpose lanes are closed.

| 8th St. E to 15th St. SW (Existing Configuration: 2-lane section) | | | | |
|--|--|-----------|----------------------------------|-----------|
| Allowable Closure Times | Sunday Night to Monday Morning Monday Night to Tuesday Morning Tuesday Night to Wednesday Morning Wednesday Night to Thursday Morning Thursday Night to Friday Morning | | Saturday Night to Sunday Morning | |
| | From | To | From | To |
| 1 lane closed | 10:00 p.m. | 4:00 a.m. | 11:00 p.m. | 8:00 a.m. |

2.22.4.3.1.3 ***[SR 18

The Design-Builder will be allowed to close one lane in each direction of SR 18 at the SR 167 interchange during the following times:

- 9:00 p.m. Sunday to 5:00 a.m. Monday.
- 9:00 p.m. Monday to 5:00 a.m. Tuesday.
- 9:00 p.m. Tuesday to 5:00 a.m. Wednesday.
- 9:00 p.m. Wednesday to 5:00 a.m. Thursday.
- 9:00 p.m. Thursday to 5:00 a.m. Friday.]***

2.22.4.3.2 Full Freeway Closures

The Design-Builder will be allowed to close all lanes of mainline freeways in accordance with this Section upon written notification to WSDOT and upon prior approval by WSDOT and all Local Agencies impacted by the detour routes.

The Design-Builder shall provide written notification to WSDOT of the planned closure, including the date and time of the closure and the applicable traffic control, at least 60 Calendar Days in advance of the full freeway closure.

A submittal that does not conform to the Contract time limits, is incomplete, unintelligible, or includes inaccurate information, will be returned to the Design-Builder for correction. The Design-Builder will be notified promptly of a disapproved closure or a closure that will require coordination with other parties as a condition of approval.

The Design-Builder shall confirm the scheduled closure with WSDOT at least 14 Calendar Days prior to the date on which the closure is scheduled; the closure will be approved by 4:00 p.m. the following business day. All freeway closures not confirmed as scheduled shall be canceled.

Detour routes shall be provided by the Design-Builder for all roadway closures. Detours must be approved by impacted Local Agencies a minimum of 30 Calendar Days prior to implementing the closure. The Design-Builder shall coordinate the closure with nearby projects to ensure no conflicting Work activities are planned, including ramp or roadway closures that have conflicting or overlapping detours.

All detours shall be in place, including all advance-signing, prior to closure of the freeway.

Full closure of the freeway shall require WSP enforcement as part of the traffic control plans.

The Design-Builder shall complete all Work within the specified closure times prior to opening the freeway to traffic.

Advance notification, public notification, and signing requirements shall be in accordance with this Section and Section 2.9.

The Design-Builder shall provide WSDOT with a contingency plan for re-opening closed roadways to public traffic in the event of equipment breakdown, shortage of materials, lack of production of materials, or other production failure; or when it becomes necessary to reopen the closure for use by public traffic. The Design-Builder shall furnish an hour-by-hour schedule of all Work activities to be performed during the full roadway closure. The Design-Builder shall also furnish a contingency plan for this closure which includes re-

Comment [jlb36]: May 21, 2015 7:05 AM Jon Harris says:
Full Freeway/Highway Closures?

Comment [jlb37]: May 26, 2015 11:23 AM Bonnie Nau says:
.....or Roadway Closures. Depending upon the project there could be all three type of closures involved (freeway, adjoining state highway, and a local jurisdiction roadway). Likely need a section developed for each one (freeway, highway, roadway) and guidance on when each is used - similar to the specs for design-bid-build projects.

Bonnie- do you have proposed sections for Highway Closures and Roadway Closures from other projects? Do we add these sections at this time?

opening lanes for general public traffic. The contingency plan and its acceptance by WSDOT shall not relieve the Design-BUILDER from the impact charges as specified in this Section and Section 1-08.9 of the General Provisions.

2.22.4.3.2.1 *[Northbound SR 167 Full Weekend Closure**

The Design-BUILDER will be allowed a maximum of one full weekend closure of northbound SR 167 between 8th Street E and Ellingson Road. The northbound on-ramp from 8th Street E and the northbound off-ramp to Ellingson Road may remain closed during this weekend closure. The northbound on-ramp from Ellingson Road shall remain open during this weekend closure. The Design-BUILDER shall not close any southbound lanes on SR 167 during this closure.

Allowable hours for this closure are listed in the table below. During the weekend closure, the Design-BUILDER shall not close any lanes or ramps other than those listed in this table.

| Northbound SR 167 Full Freeway Closure at 8th St. E | | |
|---|--------------------------------|-----------|
| Allowable Closure Times | Friday Night to Monday Morning | |
| | From | To |
| 1 lane closed | 10:00 p.m. | 4:00 a.m. |
| Full roadway closure | 11:00 p.m. | 4:00 a.m. |
| NB on-ramp from 8th St. E | 11:00 p.m. | 4:00 a.m. |
| NB off-ramp to Ellingson Rd | 11:00 p.m. | 4:00 a.m. |

]***

2.22.4.3.2.2 *[Southbound SR 167 Full Weekend Closure**

The Design-BUILDER will be allowed a maximum of one full weekend closure of southbound SR 167 between Ellingson Road and 8th Street E. The southbound on-ramp at 8th Street E shall remain open during this weekend closure. The Design-BUILDER shall not close any northbound lanes on SR 167 during this closure.

Allowable hours for this closure are listed in the table below. During the weekend closure, the Design-BUILDER shall not close any lanes or ramps other than those listed in this table.

| Southbound SR 167 Full Freeway Closure at 8th St. E | | |
|---|--------------------------------|-----------|
| Allowable Closure Times | Friday Night to Monday Morning | |
| | From | To |
| 1 lane closed | 11:00 p.m. | 5:00 a.m. |
| Full roadway closure | 11:59 p.m. | 5:00 a.m. |
| SB on-ramp from Ellingson Rd | 11:00 p.m. | 5:00 a.m. |
| SB off-ramp to 8th St. E | 11:00 p.m. | 5:00 a.m. |

]***

2.22.4.3.2.3 *[SR 18 Allowable Full Nighttime Closure**

The Design-BUILDER will be allowed three full nighttime closures of eastbound SR 18 between W. Valley Highway off-ramp and the northbound SR 167 to eastbound SR 18 on-ramp.

The Design-BUILDER will be allowed three full nighttime closures of westbound SR 18 between the westbound SR 18 to northbound SR 167 off-ramp and the southbound SR 167 to westbound SR 18 on-ramp.

Simultaneous closures of eastbound SR 18 and westbound SR 18 will not be allowed.

Allowable closure hours are listed in the table below. During the full nighttime closures, the Design-BUILDER shall not close any lanes or ramps other than those listed in this table.

| SR 18 at SR 167 Freeway and Ramp Closures | | |
|---|-------------------------------------|-----------|
| Allowable Closure Times | Sunday Night to Monday Morning | |
| | Monday Night to Tuesday Morning | |
| | Tuesday Night to Wednesday Morning | |
| | Wednesday Night to Thursday Morning | |
| | Thursday Night to Friday Morning | |
| | From | To |
| EB SR18 full closure | 11:00 p.m. | 5:00 a.m. |
| WB SR18 full closure | 11:00 p.m. | 5:00 a.m. |
| SB SR167 to EB SR18 ramp | 10:00 p.m. | 5:00 a.m. |
| W Valley Hwy to EB SR18 on-ramp | 10:00 p.m. | 5:00 a.m. |
| WB SR18 to SB SR167 ramp | 10:00 p.m. | 5:00 a.m. |
| WB SR 18 off-ramp to W Valley Hwy | 10:00 p.m. | 5:00 a.m. |

]***

2.22.4.3.3 Entrance and Exit Ramp Closures

The Design-Builder will be allowed to close ramps during the hours listed in the table below. The Design-Builder shall maintain the existing ramp configurations at all times outside of the allowable closures described in this Section, unless otherwise permitted in this Section. Refer to Section 1-08 of the General Provisions for liquidated damages associated with failure to fully reopen ramps by the opening time given in the table below. If two or more ramps within the Project limits are planned to be closed concurrently, and the closed ramps have overlapping detours, the Design-Builder shall conduct an analysis of the detour routes in accordance with Section 2.21 and submit it to the WSDOT Engineer. If overlapping detours are determined to be unacceptable by the WSDOT Engineer, then only one ramp closure will be allowed. Closure durations shall be reduced based on the results of this analysis. ***[

Comment [j1b38]: May 5, 2015 7:34 AM Phil Larson says:

2.22.4.3.3 General Need to discuss ramp closures. Many time the DBer is asked to close a ramp with a mainline lane closure for safety. The ramp could remain open but it is closed due to comment resolution. Should these count against the maximum number of closures. D-Bers do not like taking ramp it cost us money. In the future we suggest keying in on one or two ramp within the project which are the hot buttons for the public. Reduce the number of closures on these ramps only.

Comment [j1b39]: May 14, 2015 1:31 PM Gil McNabb says:

I will add that it is not a good owner approach to estimate and limit the maximum number of ramp closures for a DB project not nearly fully developed at the RFP stage. Exceptions would be for particularly high impact ramps and those that lack good detour options. Tracking maximum ramp closure numbers is not valuable or effective for owner or DBer for our typical nighttime ramp closures.

Comment [j1b40]: May 26, 2015 11:33 AM Bonnie Nau says:

Not providing a limitation on the number of ramps potentially leads to a run-away of closures, depending upon the Builder. There needs to be some limitation of ramps closures such as freeway to freeway, exits, transit ramps, etc. One approach taken was that the Builder was allowed XX number of ramp closures in the project and it was theirs to choose how to apply the quantity and location. In the proposals the potential Design-Builders were asked to identify the number of closures, type, and locations and was provided specific points/value based on impacts. Providing limitations on the numbers also assists/allows for planning, communication outreach during development through the RFP process, etc.

Provide some guidance to Engineer on when to use this and to make sure there is not a lot of additional closures without this limitation.

| Ramp | Maximum number of closures allowed | Sunday Night to Monday Morning Monday Night to Tuesday Morning Tuesday Night to Wednesday Morning Wednesday Night to Thursday Morning Thursday Night to Friday Morning | | Saturday Night to Sunday Morning | |
|---|------------------------------------|--|-----------|----------------------------------|-----------|
| | | From | To | From | To |
| 8 th St. E on-ramp to SB SR 167 | 4 | 9:00 p.m. | 5:00 a.m. | 9:00 p.m. | 6:00 a.m. |
| SB SR 167 off-ramp to 8 th St. E | 2 | 9:00 p.m. | 5:00 a.m. | 9:00 p.m. | 6:00 a.m. |
| 8 th St. E on-ramp to NB SR 167 | 7 | 9:00 p.m. | 5:00 a.m. | 9:00 p.m. | 6:00 a.m. |
| Ellingson Rd. on-ramp to SB SR 167 | 7 | 9:00 p.m. | 5:00 a.m. | 9:00 p.m. | 6:00 a.m. |
| SB SR 167 off-ramp to Ellingson Rd. | 4 | 9:00 p.m. | 5:00 a.m. | 9:00 p.m. | 6:00 a.m. |
| Ellingson Rd. on-ramp to NB SR 167 | 2 | 9:00 p.m. | 5:00 a.m. | 9:00 p.m. | 6:00 a.m. |
| NB SR 167 off-ramp to Ellingson Rd. | 2 | 9:00 p.m. | 5:00 a.m. | 9:00 p.m. | 6:00 a.m. |
| EB 15 th St. SW on-ramp to SB SR 167 | 7 | 9:00 p.m. | 5:00 a.m. | 9:00 p.m. | 6:00 a.m. |
| WB 15 th St. SW loop ramp to SB SR 167 | 8 | 9:00 p.m. | 5:00 a.m. | 9:00 p.m. | 6:00 a.m. |
| SB SR 167 off-ramp to 15 th St. SW | 2 | 9:00 p.m. | 5:00 a.m. | 9:00 p.m. | 6:00 a.m. |
| WB SR 18 on-ramp to SB SR 167 | 2 | 10:00 p.m. | 5:00 a.m. | 10:00 p.m. | 6:00 a.m. |
| SB SR 167 off-ramp to EB SR 18 | 2 | 10:00 p.m. | 5:00 a.m. | 10:00 p.m. | 6:00 a.m. |
| SB SR 167 off-ramp to WB SR 18 | 2 | 10:00 p.m. | 5:00 a.m. | 10:00 p.m. | 6:00 a.m. |
| 15 th St. NW on-ramp to SB SR 167 | 2 | 9:00 p.m. | 5:00 a.m. | 9:00 p.m. | 6:00 a.m. |
| SB SR 167 off-ramp to 15 th St. NW | 2 | 9:00 p.m. | 5:00 a.m. | 9:00 p.m. | 6:00 a.m. |
| S 277 th St. on-ramp to SB SR 167 | 2 | 9:00 p.m. | 5:00 a.m. | 9:00 p.m. | 6:00 a.m. |

]***

The Design-BUILDER will be allowed to close ramps upon written notification to WSDOT and upon prior approval by WSDOT and all affected Local Agencies, provided that the requirements for ramp access are satisfied, and provided that the closure is shown on an RFC MOT Plan. Consecutive off-ramps or consecutive on-ramps shall not be closed concurrently unless approved by the WSDOT Engineer.

The Design-BUILDER shall provide a written ramp closure schedule to WSDOT at least 14 Calendar Days in advance of a ramp closure. The schedule shall show the locations and times of all ramp closures and the allowable closure time limits specified in the Contract. A schedule that does not conform to the Contract time limits, is incomplete, unintelligible, or includes inaccurate information, will be returned to the Design-BUILDER for correction. The Design-BUILDER will be notified promptly of any disapproved closures or any closure that will require coordination with other parties as a condition of approval. Requests for ramp closures made less than 14 Calendar Days in advance will not be approved.

The Design-BUILDER shall confirm all scheduled closures with WSDOT at least seven Calendar Days prior to the date on which the ramp closure is scheduled. All ramp closures not confirmed as scheduled shall be canceled. Confirmed ramp closures that are canceled for unsuitable weather may be rescheduled for the next allowable day.

The Design-BUILDER shall provide detour routes for ramp closures and all roadway closures. Detours shall be approved by impacted Local Agencies a minimum of 14 Calendar Days prior to implementing the closure. All detours shall be in place, including all signing, prior to closure of the ramp. If more than one ramp or roadway will be closed at the same time, all detour routes shall be shown on the same plan.

The Design-BUILDER shall coordinate ramp closures with nearby projects in accordance with Section 2.1 to ensure consecutive on-ramps or off-ramps are not closed simultaneously or result in conflicting or overlapping detours.

The Design-BUILDER shall complete all ramp Work within the specified allowable closure times prior to opening the ramps to traffic.

2.22.4.3.3.1 ***[Ellingson Road Northbound On-Ramp Closure]

The Design-BUILDER will be permitted one full closure of the Ellingson Road on-ramp to northbound SR 167 for a maximum of 96 hours. The full closure shall begin no earlier than 9:00 p.m. on Thursday and end no later than 9:00 p.m. on Monday and shall not be concurrent with any of the SR167 full roadway closures or SR 18 full roadway closures.

The Design-BUILDER shall provide written notification to WSDOT of the planned closure dates, including the date and time of the closure and the applicable traffic control, at least 45 Calendar Days in advance of the closure. The notification shall include the date and time of the closure, traffic control plans, detour plans, and Portable Traffic Control Signal plans. WSDOT will return for correction any schedule that does not conform to the Contract time limits, is incomplete, unintelligible, or includes inaccurate information. WSDOT will notify the Design-BUILDER of any disapproved closure. WSDOT will not approve requests for the ramp closure made less than 30 Calendar Days in advance.

The Design-BUILDER shall confirm the scheduled closure with WSDOT at least seven Calendar Days prior to the date on which the closure is scheduled; the closure will be returned or approved by 4:00 p.m. the following business day. All highway closures not confirmed as scheduled shall be canceled.

Detour routes shall be provided by the Design-BUILDER for all ramp closures. Detours shall be approved by WSDOT and the impacted Local Agencies a minimum of 30 Calendar

Comment [Jlb41]: May 5, 2015 7:38 AM Phil Larson says:
2.22-16 4-5 Please reword and give the project office the chance to allow consecutive closes. Many place the existing conditions require it. "Consecutive off-ramp or consecutive on-ramps shall not be closed concurrently without the PE's approval."

Comment [ET42]: Allowing consecutive off-ramps or consecutive on-ramps to be closed concurrently should be an exception. There have been rare cases where consecutive on and off ramps have required consecutive closures. Consecutive ramp closures should be as identified in the MOT plans and when detours do not conflict. Such closures should also be limited in nature due to the impacts created. The hours for consecutive ramp closures should be more limiting than the hours provided for a single ramp closure, particularly when the detour is the same for both.

Comment [ET43]: Review this addition – add guidance if used – this is an exception not typical

Comment [Jlb44]: May 26, 2015 11:37 AM Bonnie Nau says:
There have been rare cases where consecutive on and off ramps have required consecutive closures. Consecutive ramp closures should be as identified in the MOT plans and when detours do not conflict. Such closures should also be limited in nature due to the impacts created. The hours for consecutive ramp closures should be more limiting than the hours provided for a single ramp closure, particularly when the detour is the same for both.

Bonnie – please review language change – and guidance to user.

Days prior to implementing the closure. The Design-BUILDER shall coordinate the closure with nearby projects to ensure no conflicting Work activities are planned including roadway closures that have conflicting or overlapping detours.

Advance notification, public notification, and signing requirements shall be in accordance with this Section and Section 2.9.]***

2.22.4.3.4 Allowable Shoulder Closures

Shoulder closures will be permitted during the allowable lane closure hours. In addition, temporary shoulder closures will be permitted in accordance with the RFC MOT Plan as follows: ***[

| SR 167 Allowable Shoulder Closures | | | | |
|------------------------------------|--|-----------|--|-----------|
| | Monday Tuesday Wednesday Thursday Friday | | Sunday Night to Monday Morning Monday Night to Tuesday Morning Tuesday Night to Wednesday Morning Wednesday Night to Thursday Morning Thursday Night to Friday Morning | |
| | From | To | From | To |
| Northbound shoulder | 9:00 a.m. | 3:00 p.m. | 8:00 p.m. | 5:00 a.m. |
| Southbound shoulder | 9:00 a.m. | 3:00 p.m. | 8:00 p.m. | 5:00 a.m. |

]***

Shoulders that are adjacent to a closed lane shall be closed.

2.22.4.4 TRAFFIC OPERATIONS DURING CONSTRUCTION

The Design-BUILDER shall notify ***insert region-specific department and phone number [WSDOT's Seattle Radio at (206) 440-4490]*** when setting up and removing all lane, shoulder, and roadway closures.

Comment [J1b45]: region-specific.

The Design-BUILDER shall use protective vehicles with warning beacons and TAs for protection of Work zones on roadways with a posted speed limit equal to or greater than 45 mph.

2.22.4.4.1 Mainline During Construction

Existing shoulders can be used as traveled lane or Work zone truck access in accordance with Section 2.7. See Section 2.7 for pavement depth requirements associated with using a shoulder as a temporary traveled lane.

There may be existing facilities in the existing roadway shoulder which may not be adequate for traveled lane or Work zone truck access operations. These may include, but are not limited to, drainage structures, junction boxes, cable and drainage vaults, manholes, pull boxes, and the lids for these facilities. Prior to using an existing shoulder as all or part of the traveled way, the Design-BUILDER shall inspect all existing facilities within the roadway shoulder which may be used as traveled lane or Work zone truck access and remediate any existing facilities within the roadway shoulder which are not adequate to support sustained traffic. All damaged facilities shall be replaced at the Design-BUILDER's expense.

Mainline and auxiliary lanes shall be a minimum of *** [11 feet wide and 12 feet wide respectively, and shall not exceed 14 feet wide unless otherwise specified]***. Lanes shall be ***[12 feet]*** wide with *** [4-foot]*** shoulders where adequate room is available.

When shoulders are less than 5 feet wide, construction signs shall be barrier-mounted or placed behind the barrier at an elevated height to ensure visibility from a height of 3 feet from the roadway surface.

Tripod-mounted signs are allowed when shoulders are greater than 5 feet wide.

The Design-BUILDER shall not clip construction signs. When placement of a sign edge is within 2 feet of the traveled way, the Design-BUILDER may implement one of the following strategies:

- Use a sign smaller than the typical 48-inch x 48-inch size (roughly 67 inches wide).
- Omit the sign and provide additional advance warning at other locations.
- Design special rectangular signs to convey the same message but with a reduced width.

When shoulders are greater than 10 feet wide, the Design-BUILDER shall place drums at 80-foot spacing, 10 feet from the edge line, supplemented by a minimum of two transverse devices at 500-foot spacing.

The Design-BUILDER shall provide an 8-foot right shoulder/distress lane, when feasible. Each shoulder shall be a minimum of 2 feet wide and shall be paved. Wider shoulders may be required to accommodate the necessary sight distance.

The Design-BUILDER shall design any temporary construction or widening to withstand the anticipated traffic volumes and loadings during the applicable stage of the Project.

Mainline general purpose lanes in the same direction of travel shall not be split or separated. ***OPTIONAL [Temporary and permanent HOV/HOT lanes may be separated from the general purpose lanes with WSDOT's prior approval. When split from the mainline, the minimum roadway width for the HOV/HOT lane and shoulders shall be 24 feet and the design speed shall be at least 60 mph. The HOV/HOT lanes shall also have adequate advance signage and lighting. MOT Plans shall include advance overhead signing and enhanced pavement markings. The Design-BUILDER shall ensure adequate sight distance and traffic flow operation.]***

2.22.4.4.1.1 Design Criteria

The design speed for temporary conditions shall not be less than the posted speed. All mainline shifting tapers and lane closure tapers shall use a minimum taper rate of ***[70:1]***.

2.22.4.4.1.2 Temporary Lane Closures

The Design-BUILDER shall provide written notification to WSDOT and all affected Local Agencies a minimum of seven Calendar Days prior to each closure. Each lane closure shall have one sequential arrow board per closed lane, as part of the traffic control layout. No closures shall be scheduled until the MOT Plans are Released for Construction.

The Design-BUILDER shall use traffic safety drums on all lane closures.

For lane closures longer than 500 feet, the Design-BUILDER shall use a minimum of two transverse devices in the closed lane at 500-foot spacing.

Comment [jlb46]: May 5, 2015 7:40 AM Phil Larson says:
2.22-18 13-15 Why not 12' wide to match the final condition.

Comment [jlb47]: May 26, 2015 11:38 AM Bonnie Nau says:
A 12' width looks more like a driving lane and one will see drivers using it as such. 10' is a little more uncomfortable for a driver to use as a lane hence the reason for 10ft rather than 11ft or 12ft

Provide guidance if permanent shoulder is greater than 10'

Comment [ET48]: Clarify what this is- Paul Mayo

Comment [jlb49]: Use when applicable.

Comment [jlb50]: May 21, 2015 7:09 AM Jon Harris says:
Clarify what sight distance criteria should be used. The existing curve table in DM or other? This will avoid unneeded debate.

Response – Clarify the requirement/standard for temporary site distances

2.22.4.4.1.3 Law Enforcement

Law enforcement shall be provided for rolling slowdowns, full freeway closures, and to control intersections when traffic signals are temporarily turned off. Law enforcement for the Work zone shall be included in the proposal price.

2.22.4.4.1.4 Sequential Arrow Displays

Each vehicle used to place, maintain, or remove components of a traffic control system on multi-lane highways shall be equipped with a sequential arrow display that shall be in operation when the vehicle is in use. Vehicles equipped with sequential arrow displays not involved in placing, maintaining, or removing components when operated within a stationary-type lane closure shall display only the four-corner flash caution mode. The operator of the vehicle shall control the arrow display while the vehicle is in motion. Sequential arrow displays used in moving lane closures shall be truck-mounted. This requirement applies to all vehicles placing, maintaining, and removing traffic control devices, including concrete barrier trailers and "cherry pickers".

2.22.4.4.1.5 Advance Signing

The Design-Builder shall furnish and install ***[two]*** G24-501 (modified) signs with the Project hotline phone number within the Project limits – *** [one in the northbound and one in the southbound directions of SR 167]***. The signs shall be installed within 30 Calendar Days of the date the Contract is executed, and prior to all other construction activity on the Project. The signs shall remain in place until Physical Completion. Coordination with nearby projects may be required for placement of the signs.

WSDOT will supply the Project identification sign. The Design-Builder shall be responsible for coordination, transportation, and installation of the sign, including supplying the posts for the sign and placards with the Project amount and Design-Builder's name. Refer to the *Project Identification Sign Detail* (Appendix W). These signs shall be located a minimum of 800 feet away from any guide sign and motorist information signs.

The Design-Builder shall pick up the sign at the address below, and shall coordinate the receipt of the Project identification signs by contacting:

*** [Greg Alseth
WSDOT Traffic Maintenance
6431 Corson Avenue South
Seattle, WA 98108-3445
Phone: (206) 768-5883]***

If it is necessary to relocate advance signing for any reason, the Design-Builder shall be responsible for relocation.

2.22.4.4.2 Ramps During Construction

2.22.4.4.2.1 Design Criteria

The Design-Builder shall provide acceleration and deceleration lanes to ensure vehicles are within 10 mph of the mainline speed at the point they must merge or diverge from mainline lanes. Exit speeds shall be posted for all ramps. For ramps where the design speed during construction is reduced from existing conditions, black on orange construction signs shall be used for the exit speed signs.

The number of lanes and lane configurations shall equal or exceed the existing configuration. Adequate storage for queuing and throughput volumes at traffic signals and ramp meters shall be maintained. Ramp meters shall not operate with two vehicles per green indication. Lanes shall be a minimum of ***[11]*** feet wide on entrance and exit ramps. Paved shoulders shall be provided on both sides of each ramp and shall be a minimum of ***[2]*** feet wide. Wider ramp widths than these minimums shall be required where necessary to satisfy AASHTO design widths for turning roadways and horizontal stopping sight distances, and to accommodate ***[WB-67]*** design vehicle tracking. Refer to the *WSDOT Design Manual*. All exit ramp tapers shall use a desirable taper rate of ***[20:1]***, and a minimum taper rate of ***[15:1]***.

Turning movements at the ramp terminals shall be designed to accommodate a ***[WB-50]*** design vehicle.

2.22.4.4.3 Local Roads During Construction

The Design-Builder shall maintain the existing local street configuration at all times outside the allowable closures from the Local Agencies, unless otherwise permitted in this Section.

All MOT Plans affecting local roads shall follow the requirements of each Local Agency impacted. The Design-Builder shall be responsible for submitting plans and obtaining approvals from the Local Agencies for each planned closure. Allowable closure hours for lane and roadway closures on local roads shall be approved by the corresponding Local Agency. The Design-Builder shall coordinate with ***Insert cities/counties*** regarding concurrent construction work along city cross-streets that may be affected by traffic control for the Project; see *Right-of-Way Use Permits* (Appendix R).

The Design-Builder shall provide written notice to WSDOT and the affected Local Agencies a minimum of 30 Calendar Days prior to restricting local traffic. The Design-Builder shall be responsible for obtaining approval for each planned lane closure from WSDOT and the Local Agencies affected by the Work. The Design-Builder shall be responsible for obtaining all necessary permits from Local Agencies associated with lane closures on local streets. The Design-Builder shall maintain access to all affected businesses and residences during the lane closures.

2.22.4.4.3.1 Design Criteria

The design speed of all local roads during construction shall be the existing posted speed limit. Any reduction from the existing posted speed limit shall be identified in the TMP and requires approval by the corresponding Local Agency.

The existing number of through lanes shall be maintained at all times except as approved by WSDOT and the affected Local Agency. All lanes for local roads shall be a minimum of ***[11]*** feet wide, measured to the front of gutter, unless the existing lane width is less than ***[11]*** feet, in which case the lane shall not be less than the existing width.

2.22.4.4.3.2 Detours

All detours shall be in place, including all signing, prior to closure of any road. Detours using local roads shall follow traffic control permit requirements for each Local Agency impacted.

The Design-Builder shall identify all bus routes, including school bus routes, which may be affected by the detour; and shall coordinate with the bus agency regarding impacts to the schedule and location of the bus stops.

2.22.4.4.4 Temporary Guardrail, Barrier Attenuators, and Glare Screen

2.22.4.4.4.1 Vehicle Protection

The Design-Builder shall be responsible for using temporary guardrail, barrier, and attenuators to protect the traveling public from the following:

- Fixed objects within the clear zone;
- Drop-offs as required by this Section; and
- Slopes steeper than 4H:1V.

2.22.4.4.4.2 Barrier and Glare Screen

Opposing traffic lanes of mainline ***[SR 167]*** shall be separated by permanent barrier or TCB in accordance with WSDOT design requirements.

TCB placed along the edge of a bridge structure shall be anchored.

The end of TCB shall not be placed within the clear zone of approaching traffic unless an appropriate attenuator is used. Refer to the *WSDOT Design Manual* for minimum taper rates and additional details.

The Design-Builder shall provide a lateral displacement distance behind all barrier (including TCB) equal to or greater than the longitudinal barrier deflection shown in Figure 1610.02 of the *WSDOT Design Manual*. The lateral displacement area shall be kept clear of fixed objects and shall not be used as a Work area.

When mainline median crossovers are used, temporary glare screen, in accordance with Sections 8-25 and 9-16 of the Standard Specifications, using slats shall be placed on top of the median TCB to reduce the headlight glare of approaching vehicles. All concrete barrier shall have reflectorized barrier delineators of the appropriate color with 20-foot maximum spacing. The barrier delineators shall be side-mounted.

2.22.4.4.5 Pedestrian and Bicycle Access During Construction

The Design-Builder shall maintain existing pedestrian access on all sidewalks, transit facilities, and intersections. The Design-Builder shall also maintain safe access and passage for all pedestrian facilities. Pedestrian sidewalks and paths shall be maintained and continue to conform to ADA requirements. Occupational safety regulations that apply to the Project limits shall also be considered the minimum standard for personal safety to pedestrians. If Work will be performed over any pedestrian and bicycle routes, temporary lighted covered walkways shall be provided to protect pedestrians and bicyclists from overhead hazards.

When the Design-Builder allows Work areas to encroach upon a sidewalk or crosswalk area and a minimum clear width of 48 inches cannot be maintained for pedestrian use, an alternative accessible pedestrian route shall be provided. Separation of pedestrians from the Work area and vehicular traffic is required.

Protective barricades, fencing, and bridges, together with warning and guidance devices and signs, shall be used so that the passageway for pedestrians is safe, well defined, and

accessible. Whenever pedestrian walkways are provided across excavations, they shall be provided with handrails in accordance with ADA requirements. Foot bridges shall be safe, strong, and free of bounce and sway; have a slip-resistant coating; and be free of cracks, holes, and irregularities that could cause tripping. Ramps with a maximum slope of 8.3 percent shall be provided at the entrance and exit of all raised footbridges. The maximum cross slope shall be 2.0 percent. When the existing facility is illuminated or MOT Plans require illumination, illumination shall be provided during the hours of darkness. Retroreflective delineation, with or without illumination, shall be provided during hours of darkness.

Comment [j1b51]: May 20, 2015 8:43 AM Eric Ostfeld says:
lines 2-3 use a quantifiable requirement instead of "safe, strong...". Suggest using pedestrian live load per AASHTO or similar.

Bonnie – any change to language?

Where accessible pedestrian routes are allowed to be closed by the Design-Builder during construction, an alternate accessible pedestrian route shall be provided that complies with the MUTCD, the ADA requirements, and these Technical Requirements. The alternate accessible pedestrian route shall not have abrupt changes in grade or terrain. Barriers and channelizing devices shall be detectable to pedestrians who have visual disabilities. Where it is necessary to divert pedestrians into the roadway, barricading or channelizing devices shall be provided to separate the pedestrian route from the adjacent vehicular traffic lane. Barricading or channelizing devices used to separate pedestrian and vehicular traffic shall be crashworthy and when struck by vehicles, present a minimum threat to pedestrians, workers, and occupants of impacting vehicles. At no time shall pedestrians be diverted into a portion of the street used concurrently by moving vehicular traffic.

The Design-Builder shall not park motor vehicles or construction equipment on a pedestrian sidewalk or path, or use a pedestrian sidewalk or path for loading operations, stockpiling of materials, or allowing demolished or spoil materials to be deposited on the surface of a pedestrian sidewalk or path. Any surface of a pedestrian sidewalk or path affected by the Work shall be restored to meet ADA standards prior to re-opening to pedestrian traffic. The trail surface shall be swept or washed free of debris including, but not limited to, mud, gravel, grease, and excavated, spoiled, or stockpiled materials.

Pedestrian and bicycle routes shall not be closed except during full closures of the adjacent roadways. During full closures of the adjacent roadways, a pedestrian and bicycle access plan shall be implemented with a minimum of 14 Calendar Days advance notice provided to all pedestrians and bicyclists. ***OPTIONAL: [Bicyclists currently use SR 167.]*** The Design-Builder shall notify the ***Insert bicycle clubs or other interested parties [Cascade Bicycle Club]*** seven Calendar Days prior to closure of any bicycle trails. A pedestrian and bicycle access plan shall not require pedestrians or bicyclists to travel more than 0.25 mile longer than the pre-construction distance. Advance notice shall consist of signs located at the construction limits and all accesses serving the affected area; and public notification in accordance with Section 2.9. All access closures and pedestrian and bicycle access plans shall be shown in the MOT Plans. All detours and Work sites shall be signed in accordance with the MUTCD, the ADA requirements, the WSDOT Work Zone Traffic Control Guidelines, and these Technical Requirements. Refer to Chapters 1510 and 1520 of the WSDOT Design Manual.

Comment [j1b52]: Delete if not applicable to project.

2.22.4.5 PUBLIC CONVENIENCE AND SAFETY

2.22.4.5.1 Construction Under Traffic

The Design-Builder shall conduct all operations with the least possible obstruction and inconvenience to the public. The Design-Builder shall not have under construction a greater length or amount of Work than can be prosecuted properly with due regard to the rights of the public. To the extent possible, the Design-Builder shall finish each section of

Comment [j1b53]: May 19, 2015 8:49 AM Eric Ostfeld says:
2.22.4.5.1 Line 44: change to "The Design-Builder shall conduct all operations considering public inconvenience" or delete sentence. Can't quantify, price, or enforce.

Bonnie - Provide a way to quantify or delete sentence

1 Work before commencing Work on the next section. The Design-Builder shall enter
2 interstate highways only through legal movements from existing roads, streets, and other
3 access points specifically permitted by the Contract.

4 In order to minimize public traffic disruption, the Design-Builder shall permit traffic to
5 pass through the Work zone with the least possible inconvenience or delay. The
6 Design-Builder shall maintain existing roads and streets within the Project limits, keeping
7 them open, and in a good, clean, safe condition at all times. Deficiencies caused by the
8 Design-Builder's operations shall be repaired at the Design-Builder's expense. Except
9 where noted in this Section and Section 2.29, deficiencies not caused by the Design-
10 Builder's operations shall be repaired by the Design-Builder, when directed by the
11 WSDOT Engineer, at WSDOT's expense. Pothole damage shall be repaired by the
12 Design-Builder at the Design-Builder's expense in accordance with Section 2.29. The
13 Design-Builder shall also maintain roads and streets adjacent to the Project limits when
14 affected by the Design-Builder's operations. Snow and ice control will be performed in
15 accordance with Section 2.29. The Design-Builder shall perform the following:

- 16 • Remove or repair any condition resulting from the Work that might impede traffic
17 or create a hazard.
- 18 • Maintain operation of traffic signals and highway lighting systems as the Work
19 proceeds. Routine maintenance of these systems shall be in accordance with
20 Section 2.29.
- 21 • Maintain the striping on the roadway in accordance with Section 2.29.
- 22 • Maintain existing permanent signing. Sign repairs will be at WSDOT's expense,
23 except those damaged due to the Design-Builder's operations.
- 24 • Keep drainage structures clean to allow for free flow of water in accordance with
25 Section 2.29.

26 To protect the rights of abutting property owners, the Design-Builder shall perform the
27 following:

- 28 • Conduct the construction so that abutting property owners are inconvenienced as
29 little as possible.
- 30 • Maintain access to driveways, houses, and buildings within the Project limits.
- 31 • Provide temporary approaches to crossing or intersecting roads, and keep these
32 approaches in good condition.
- 33 • Provide another access before closing an existing access whenever the Contract
34 calls for removing and replacing an abutting owner's access.

35 • ***OPTIONAL [Maintain HOT Lane operations.]***

Comment [Jlb54]: Delete if not applicable.

36 When traffic must pass through grading areas to access private property, the Design-
37 Builder shall perform the following:

- 38 • Make cuts and fills that provide a reasonably smooth, even roadbed.
- 39 • In advance of other grading Work, place enough fill at all culverts and bridges to
40 permit traffic to cross.

- After rough grading or placement of any subsequent layers, prepare the final roadbed to a smooth, even surface free of humps and dips, suitable for use by public traffic.

- Settle dust with water or other dust palliative.

If grading Work is on or next to a roadway in use, the Design-Builder shall finish the grade immediately after rough grading and place surfacing materials as the Work progresses.

Where planing is performed, live traffic will be allowed to drive on the ground surface for a maximum of five Calendar Days before an overlay is required in the planed section.

The Design-Builder shall conduct all operations to minimize any drop-offs (abrupt changes in roadway elevation) left exposed to traffic during non-working hours. Grinding shall not be allowed after the final paving lift is completed. Drop-offs left exposed to traffic during non-working hours shall be protected as follows:

- 1) Drop-offs up to 0.20 feet may remain exposed with appropriate warning signs alerting motorists of the condition. The drop-offs shall not remain open for more than three Calendar Days.
- 2) Drop-offs more than 0.20 feet that are in the traveled way or auxiliary lane will not be allowed unless protected with appropriate warning signs and further protected as indicated in 3b or 3c below.
- 3) Drop-offs more than 0.20 feet, but no more than 0.50 feet, that are not within the traveled way or auxiliary lanes shall be protected with appropriate warning signs and further protected by using one of the following:
 - (a) A wedge of compacted stable material placed at a slope of 4:1 or flatter.
 - (b) Channelizing devices (Type I barricades, plastic safety drums, or other devices 36 inches or more in height) placed along the traffic side of the drop-off and a new edge of pavement stripes placed a minimum of 3 feet from the drop-off. The maximum spacing between the devices in feet shall be the posted speed in miles per hour. Pavement drop-off warning signs shall be placed in advance and throughout the drop-off treatment.
 - (c) TCB or other approved barrier installed on the traffic side of the drop-off with 2 feet between the drop-off and the back of the barrier, and a new edge of pavement stripe a minimum of 2 feet from the face of the barrier. An approved terminal, flare, or impact attenuator shall be required at the beginning of the section. For night use, the barrier shall have standard delineation such as paint, reflective tape, lane markers, or warning lights.
- 4) Drop-offs more than 0.50 feet not within the traveled way or auxiliary lane shall be protected with appropriate warning signs and further protected as indicated in 3a, 3b, or 3c above, if all of the following conditions are met:
 - (a) The drop-off is less than 2 feet;
 - (b) The total length throughout the Project is less than 1 mile;
 - (c) The drop-off does not remain for more than three Calendar Days;
 - (d) The drop-off is not present on any holiday or holiday weekend described in this Section; and
 - (e) The drop-off is only on one side of the roadway.

Comment [J1b55]: May 5, 2015 7:45 AM Phil Larson says:

2.22-24 7-8 This is a great idea. We need to discuss if this works with the other sections of chapter 2. If loops are required the D-Ber will cut them in after the final lift is completed. For long term maintenance they should be cut in before the final lift. There are other challenges like this. Can we move to "Grinding Plan" or something else that could be made to match each projects challenges?

Response – is there a way to revise this language? This will be elevated for consideration as it is a policy/safety issue

5) Drop-offs more than 0.50 feet that are not within the traveled way or auxiliary lane and are not otherwise accounted for by No. 4 above, shall be protected with appropriate warning signs, and further protected as indicated in 3a or 3c above.

6) No saw cuts or open trenches across mainline or ramps will be allowed, unless approved by the WSDOT Engineer ***OPTIONAL: insert exceptions [except for Jovita Creek]***.

Work Zone Clear Zone (WZCZ)

The Work Zone Clear Zone (WZCZ) applies during working and non-working hours. Equipment or materials shall not be within the WZCZ unless it is protected by permanent guardrail or TCB.

During actual hours of active construction Work, unless protected as described above, only materials absolutely necessary for construction shall be allowed within the WZCZ; and only construction vehicles absolutely necessary for construction shall be allowed within the WZCZ or allowed to stop or park on the shoulder of the roadway. No equipment shall be stored within the WZCZ between shifts of active construction Work.

The Design-Builder's non-essential vehicles and employee's private vehicles shall not be permitted to park within the WZCZ at any time, unless protected as described above.

The WZCZ applies only to roadside objects introduced by the Design Builder's operations, and is not intended to resolve pre-existing deficiencies in the Design Clear Zone or clear zone values established at the Completion of the Project. Work operations or objects that are actively in progress and delineated by approved traffic control measures are not subject to the WZCZ requirements.

Minimum WZCZ distances are measured from the edge of the traveled way, and shall be determined as follows:

Minimum Work Zone Clear Zone Distance

| Posted Speed | Distance From Traveled Way (Feet) |
|-------------------|-----------------------------------|
| 35 mph or less | 10 |
| 40 mph | 15 |
| 45 to 55 mph | 20 |
| 60 mph or greater | 30 |

Construction vehicles using a closed traffic lane shall travel only in the normal direction of traffic flow, unless expressly allowed in the RFC MOT Plans. Construction vehicles shall be equipped with flashing or rotating amber lights.

Work over an open lane of traffic shall not be allowed, unless a plan for the protection of the traveling public from debris falling onto the traveled way is approved by the Engineer of Record. This protection shall remain in place during construction, and shall meet minimum vertical clearance for the highway.

2.22.4.5.1.1 Controlled Access

The Design-Builder shall not be allowed any special access, egress, including leaving the roadway shoulder to enter the Work area, or breaks in limited access, other than normal

Comment [jlb56]: Consider providing exceptions when jacking is not possible due to lack of cover, insufficient space for pit, or size of pipe.

Comment [jlb57]: May 5, 2015 7:47 AM Phil Larson says:
2.22.4.5.1 6) 2.22-25 4-5 Why?? Why did this move from drainage to MOT?? And why can we not open cut across ramps or mainline?

Bonnie - See language change

legal movements or movements as approved by WSDOT. The Design-Builder shall be allowed short-duration shoulder stops in the Work area, using light vehicles properly equipped with amber warning lights.

All ingress and egress to the Work area shall be shown on Site-specific MOT Plans. The Design-Builder shall provide appropriate warning signs and traffic control devices when vehicles will be departing or entering highway and city streets. Ingress and egress to the Work area shall not be located at a gore.

The Design-Builder shall close a lane of traffic in locations where the length and width of the shoulder is not adequate for construction vehicles to decelerate from departing the mainline traffic to enter the Work area or to accelerate from exiting the Work area to merge with the mainline traffic. The design speed for departing and merging into a mainline shall not be less than 10 mph below the design speed of the mainline. Access for large construction vehicles to and from an open lane, meeting the criteria above, shall only be between the hours of 9:00 a.m. and 3:00 p.m. daily, and during the lane closure hours described in this Section. Light vehicles properly equipped with amber warning lights shall be allowed access to the Work area to and from an open lane, meeting the criteria above, at all times.

Lane closures and ingress and egress to the Work area shall be restricted to the hours described in this Section, unless otherwise approved by WSDOT.

Access to the Work area from adjacent properties outside of the Right-of-Way shall be in accordance with Section 1-07.16(1) of the General Provisions.

For an approved break in limited access, the Design-Builder shall prohibit unauthorized use of the access from adjacent property. Access from outside the limited access lines shall be closed by use of a locked gate when the access point is not being used.

The access location shall not adversely affect wetlands or other sensitive areas. Airborne particulates created as a result of using the access shall be effectively controlled. The continuity of the existing drainage system shall be maintained throughout the access Site.

At the Completion of the Project, the Design-Builder shall restore the area of the access Site to its original, pre-Contract, condition. Any damage to the traveled way, shoulders, auxiliary lanes, side slopes or other areas caused by the access shall be repaired. All Work to comply with this provision or to build, maintain, provide erosion control, control airborne particulates, ensure that drainage continues throughout the access Site, provide traffic control when necessary, remove the temporary access, and restore the surrounding area when no longer required for use is the responsibility of the Design-Builder. The Design-Builder shall include all related costs in the proposal price of the Contract.

2.22.4.5.1.2 Work During Hours of Darkness

Work during hours of darkness may be required for the Project. The Design-Builder shall obtain any required noise variance or exemption for such Work. The Design-Builder shall, at no additional cost to WSDOT, make all arrangements for operations during hours of darkness. Flagger stations shall be illuminated using a minimum 150 watt steady-burn floodlight during hours of darkness. Lighting for construction activity shall be directed away from maintained traffic to minimize glare to motorists.

Refer to this Section and Section 1-07 of the General Provisions for additional requirements.

Comment [j1b58]: May 11, 2015 1:43 PM
Marek Bednarczyk says:
2.22.4.5.1.1 PG 26 Line 7 The Design Builder shall NOT?

Comment [j1b59]: May 26, 2015 11:46 AM
Bonnie Nau says:
It is correct as stated. Basically, it is telling the Builder that when there is such a restriction on the shoulder, they must close a lane rather than perform an activity that could encroach a live lane.

No change

Comment [j1b60]: May 5, 2015 7:52 AM Phil Larson says:
2.22-26 13 Why restrict hours of access to a work zone if it has been designed to these requirements? If this is needed it should be case by case and not in the template.

Comment [j1b61]: May 26, 2015 11:45 AM
Bonnie Nau says:
Any work zone equipment/vehicle activities in the traffic flow are a disruption to traffic during peak hours - hence the reason for the time restriction.

Provide guidance to authors – change time or delete for locations where this peak flow is not as critical

Comment [j1b62]: May 19, 2015 8:54 AM Eric Ostfeld says:
2.22.4.5.1.2 Line 39-40: consider using lumens instead of wattage for requirement.

Change language if possible

2.22.4.5.1.3 Signs and Traffic Control Devices

All signs and traffic control devices for lane and roadway closures shall be installed only during the hours specified in this Section. If placed earlier than the specified hours of closure, the construction signs shall be turned or covered so as not to be visible to motorists.

2.22.4.5.1.4 Advance Notification

The Design-Builder shall submit MOT Plans for lane and shoulder closure requests in writing to WSDOT 14 Calendar Days in advance of the proposed closure, in accordance with Section 2.9.

2.22.4.5.1.5 Hour Adjustment

If the permitted closure hours adversely affect traffic, causing queues that extend beyond 1.5 miles for any lane or total roadway closure, the Design-Builder shall evaluate the Contract hours and recommend new hours to WSDOT for Review and Comment.

2.22.4.5.1.6 Public Notification

The Design-Builder shall furnish and install information signs that provide advance notification of ramp and roadway closures a minimum of seven Calendar Days prior to the scheduled closure. The signs shall have a black legend on a white reflective background. Sign locations, messages, letter sizes, and sign sizes shall be shown in the MOT Plans. For ramp and local road closures, PCMS shall be used to supplement the required signs. The Design-Builder shall notify the Washington State Patrol, local fire departments, police departments, city engineering departments, public transit agencies, and the affected school districts in writing a minimum of seven Calendar Days prior to scheduled closures. The Design-Builder shall provide written copies of these notifications to WSDOT. Refer to Section 2.9 for additional requirements.

2.22.4.5.1.7 Mast Arm Erection and Traffic Block Allowance

During erection of mast arm assemblies, the Design-Builder may, with the prior authorization of WSDOT, block all traffic for intervals of a maximum of five minutes between the hours of 12:00 a.m. and 4:00 a.m. These five-minute blockages shall be separated by an interval long enough to allow the delayed vehicles to clear.

2.22.4.5.2 Construction and Maintenance of Detours

Unless otherwise approved, the Design-Builder shall maintain two-way traffic during construction. The Design-Builder shall build, maintain in a safe condition, keep open to traffic, and remove when no longer needed, the following:

- Detours and detour bridges that will accommodate traffic diverted from the roadway or bridge during construction;
- Detour crossings of intersecting highways; and
- Temporary approaches.

The Design-Builder shall pay all costs to build, maintain, and remove any other detours, whether built for the Design-Builder's convenience or to facilitate construction operations. Any detour proposed by the Design-Builder shall conform to the requirements of the Contract. Surfacing and paving shall be consistent with traffic requirements.

Upon failure of the Design-Builder to immediately provide, maintain, or remove detours or detour bridges, WSDOT may, without further notice to the Design-Builder or the Surety, provide, maintain, or remove the detours or detour bridges, and deduct the costs from any payments due or coming due to the Design-Builder.

2.22.4.6 CONSTRUCTION REQUIREMENTS

2.22.4.6.1 General

The Design-Builder shall plan, manage, supervise, and perform all temporary traffic control activities required to support the Work using labor, equipment, and materials provided by the Design-Builder (except when such labor, equipment, or materials are to be provided by WSDOT as specifically identified herein).

The Design-Builder shall be responsible for all MOT starting at 12:01 a.m. on the day following Notice to Proceed. The traffic control devices, including temporary and permanent signal systems, shall be continually and adequately monitored and maintained to ensure proper placement and working order, and to ensure the safe and efficient flow of all traffic through and adjacent to the Project. Such responsibility and maintenance shall continue until 11:59 p.m. on the day of Completion of the Project by WSDOT. WSDOT may, in writing, temporarily suspend such responsibility in conjunction with an official suspension for weather or other reasons.

2.22.4.6.2 Materials

All materials shall meet the requirements of Section 9-35 of the Standard Specifications. Additionally, all materials shall conform to the requirements of the Special Provisions.

OPTIONAL [The Design-Builder shall not use the Advanced Dynamic Impact Extension Module (ADIEM) impact attenuators/end treatments for the Project.]

Comment [j1b63]: delete or revise as applicable to the project.

2.22.4.6.3 Traffic Control During Construction

The Design-Builder shall provide flaggers, spotters, and all other personnel required for traffic control activities, unless specified in the Contract as being provided by WSDOT.

The Design-Builder shall perform all procedures necessary to support the Work.

The Design-Builder shall provide signs and other traffic control devices not otherwise specified in the Contract as being provided by WSDOT. The Design-Builder shall erect and maintain all construction signs, warning signs, detour signs, and other traffic control devices necessary to warn and protect the public at all times from injury or damage as a result of the Design-Builder's operations which may occur on or adjacent to highways, roads, or streets. No Work shall be done on or adjacent to the roadway until all necessary signs and traffic control devices are in place.

The traffic control resources and activities described shall be used for the safety of the public, the Design-Builder's employees, and WSDOT personnel; and to facilitate the movement of the traveling public. Traffic control resources and activities may be used for the separation or merging of public and construction traffic when such use is in accordance with the RFC MOT Plans.

Upon failure of the Design-Builder to immediately provide flaggers; erect, maintain, and remove signs; or provide, erect, maintain, and remove other traffic control devices when requested to do so by WSDOT, WSDOT may, without further notice to the Design-Builder

or the Surety, perform any of the above and deduct all of the costs from any payments due or coming due to the Design-Builder.

The Design-Builder shall be responsible for providing adequate labor, sufficient signs, and other traffic control devices; and for performing traffic control procedures needed for the protection of the Work and the public at all times regardless of whether or not the labor, devices, or procedures have been ordered by WSDOT, provided by WSDOT, or paid for by WSDOT.

When performing Work, the Design-Builder's equipment shall follow normal and legal traffic movements. The Design-Builder's ingress and egress of the Work area shall be accomplished with as little disruption to traffic as possible. Traffic control devices shall be removed by picking up the devices in a reverse sequence to that used for installation. This may require backing up through the Work area. When located behind barrier or at other locations shown on RFC MOT Plans, equipment may operate in a direction opposite to adjacent traffic.

Under the Contract, the Design-Builder is responsible for all traffic control, and any such participation by law enforcement personnel in traffic control activities shall be preceded by an agreement. Nothing in the Contract is intended to create an entitlement, on the part of the Design-Builder, to the services or participation of the law enforcement organization.

2.22.4.6.4 Signing, Pavement Markings, and Traffic Control Devices During Construction

The Design-Builder shall inspect all signing (existing and temporary) daily noting damaged signs, misplaced signs, and graffiti affecting legibility of the signs. Every detour route shall be driven hourly to ensure all detour signing is in place. Signing for detours shall be covered or removed when detours are not in use. The Design-Builder shall provide a schedule for repairing, cleaning, or replacing signs; procedures shall address rectifying incorrect or misleading signing that may present a hazard to road users.

The Design-Builder shall ensure there are no conflicting or misleading signs due to adjacent projects. The Design-Builder shall coordinate with adjacent projects and relocate signs as required to avoid conflicting information. Temporary pavement markings shall be installed in accordance with Sections 8-23 and 9-34 of the Standard Specifications.

The Design-Builder shall use temporary removable tape for temporary pavement marking configurations in areas that will not be ground or overlaid. Refer to Section 2.20 for tape specification. Temporary pavement markings shall be identified on the MOT Plans and the TMP. If paint or temporary removable tape is used for temporary markings that will remain in place for 48 hours or longer, the markings shall be supplemented with Type 2 RPMs installed at 40-foot spacing and in accordance with Standard Plan M-20.30-02. In areas where Type 2 RPMs are used to supplement temporary removable tape, the adhesive for the Type 2 RPMs shall be butyl rubber. The Design-Builder shall follow all manufacturers' preparation and application procedures for this product. In areas that will be ground or overlaid, Standard Plan M-20.50-02 shall be used for striping configurations lasting more than 30 Calendar Days.

The Design-Builder shall not use a grinder to remove painted markings. For removal of plastic markings, grinding will be allowed down to the pavement surface.

The Design-Builder shall use a shot blasting machine with a minimum 3-foot wide cleaning path to remove the ghost stripes and texture the entire width of the traveled way.

Ghost striping is defined as the shadow or scarring on the pavement surface where pavement markings have been removed.

All pavement markings that are not in use for the current MOT phase shall be removed by the Design-Builder, unless the pavement markings are behind barrier. Pavement markings to be removed shall be obliterated until they are unidentifiable as a pavement marking. The pavement marking removal shall be considered adequate when any remaining pavement marking material is not visible to a person with normal vision observing the removal area from a standing position looking 40 feet ahead. In no case, shall the pavement marking removal or the shot blasting remove more than 0.0625 inch of existing pavement. The shot blasting of the traveled way shall be feathered into the existing shoulders. The Design Builder shall ensure that the sections of traveled way that receive shot blasting will continue to adequately allow water to drain to the shoulders and there will be no areas where ponding of water remains.

Sand or other material deposited on the pavement surface as a result of removing pavement markings shall be removed as the Work progresses to avoid hazardous conditions. Accumulation of sand or other material which might interfere with drainage will not be permitted. Temporary paint on the final pavement surface shall be placed only in the final pavement marking configuration.

The Design-Builder shall inspect all pavement markings daily. The Design-Builder shall provide a schedule for replacing damaged pavement markings and establish minimum replacement time frames based on the degree of degradation. If missing or damaged pavement markings present a hazardous condition, WSDOT may require the Design-Builder to close lanes or replace the pavement markings within 24 hours.

The Design-Builder shall clean or replace all pavement markings when they become damaged or lose reflectivity.

The Design-Builder shall replace or clean temporary pavement markings whenever the reflectance of the markings has deteriorated to less than 100 mcd/m²/lux. The Design-Builder shall perform the required tests monthly, at 1-mile intervals or at specific locations requested by WSDOT.

As each construction phase is completed, the Design-Builder shall install the final signing and pavement markings required to safely open the road to traffic. This Work shall be completed on or before the date of opening. Overhead signs except exit only signs may be temporarily ground-mounted at the Design-Builder's expense.

The Design-Builder shall have adequate spare sections of temporary barrier and the necessary equipment on-Site to replace and repair temporary barrier within four hours of identification by or notice given to the Design-Builder of damaged barrier. This requirement shall include replacement of impact attenuators. Temporary traffic control shall be set up immediately upon notice of damage to ensure vehicle safety.

2.22.4.6.5 Temporary Signalization

This section applies to new temporary signals necessary for detour routes or other construction phasing, if any. Any modifications to existing traffic signals must be shown in the MOT Plans and approved by the operating agency. Modifications proposed for signal timing or phasing shall be coordinated with and approved by the operating agency. A traffic signal warrant analysis may be required for approval.

1 **2.22.4.6.5.1 *Electrical Service***

2 Refer to Section 2.16.

3 **2.22.4.6.5.2 *Material Requirements***

4 The Design-Builder shall furnish and install all required materials for the temporary
5 signalization. The Design-Builder shall provide vehicle detection methods to optimize all
6 temporary signal system installations. The Design-Builder may use Type 3 induction loops
7 or video image detection for temporary signal installations.

8 **2.22.4.6.5.3 *WSDOT Inspection***

9 The Design-Builder shall provide a minimum of seven Calendar Days' notice to WSDOT
10 prior to implementing temporary signalization. WSDOT will perform the final electrical
11 inspection and acceptance of temporary signal systems in accordance with
12 WAC 296-46B, Electrical Safety Standards, Administration, and Installation. When
13 signals are owned and operated by other Local Agencies, the Design-Builder shall follow
14 that jurisdiction's requirements.

15 **2.22.4.6.5.4 *Signal Turn-On***

16 The Design-Builder shall secure and pay for the services of a law enforcement agency to
17 perform traffic control while the traffic signal is being placed into service. Appropriate
18 signing shall be installed by the Design-Builder in advance of signal turn-on.

19 **2.22.4.6.5.5 *Operation and Maintenance***

20 The Design-Builder shall develop timing plans and phasing for the temporary signal
21 operation. WSDOT or the operating agency will enter the timing parameters into the
22 signal controller. The Design-Builder may be allowed to enter the timing parameters into
23 the signal controller with the approval of WSDOT or the operating agency.

24 WSDOT or the operating agency will operate and maintain the temporary signal systems
25 once the signal is turned on and operational. The Design-Builder shall remove all
26 temporary signal systems upon completion and operation of the new permanent signal
27 systems.

28 **2.22.4.6.6 *Temporary Illumination***

29 The Design-Builder shall evaluate the lighting values of the existing illumination in
30 relation to the temporary configuration to determine if the existing illumination provides
31 the required illumination values. If the required illumination values are not satisfied, the
32 Design-Builder shall provide temporary illumination satisfying the "construction lanes and
33 detours" light level and uniformity ratios in accordance with the *WSDOT Design Manual*.

34 Where temporary illumination is required, the existing illumination system shall not be
35 removed until the temporary system is operational. Only lighting equipment no longer
36 needed for illumination of the roadway shall be removed.

37 The Design-Builder shall provide temporary lighting satisfying the "construction lanes and
38 detours" light level and uniformity ratios when existing lighting must be removed or
39 disconnected, and new lighting is not in operation.

40 The Design-Builder shall provide temporary lighting for all intersections where traffic
41 control devices are in place. The temporary lighting shall satisfy the greater of the

“construction lanes and detours” or the specific intersection light level and uniformity ratios.

Temporary lighting is required when an obstruction (such as a new bridge) is placed over an area requiring illumination, and shall be installed prior to placing the obstruction.

The Design-Builder shall provide temporary lighting satisfying the “construction lanes and detours” light level.

In addition to the requirements of the *WSDOT Design Manual*, the Design-Builder shall provide temporary lighting satisfying the “construction lanes and detours” light level and uniformity ratios for temporary channelization or traffic control.

Portable light stands shall not be used for temporary roadway lighting.

The Design-Builder shall provide temporary illumination satisfying the “required illumination” described in the *WSDOT Design Manual*. Temporary illumination shall be in place and in operation prior to implementing the MOT Plans which require the temporary illumination.

2.22.4.6.6.1 General

At a minimum, the Design-Builder shall perform the following:

- Design temporary lighting plans;
- Maintain current levels of roadway illumination for all roadway segments and intersections that are currently lit;
- Provide all materials and equipment for temporary lighting installations;
- In the clear zone, provide only lighting units that are breakaway or protected from crash potential; and
- Provide maintenance for the temporary lighting system. Any damage to the existing illumination system shall be repaired prior to hours of darkness on the following day.

Temporary illumination shall be provided in accordance with the requirements for Construction Lanes and Detours in the *WSDOT Design Manual*.

2.22.4.6.6.2 Timber Light Standards

Timber light standards may be used for temporary lighting where breakaway or slip bases are not required. Timber light standards must be outside of the clear zone or protected by barrier.

2.22.4.6.6.3 Power Service Costs

Refer to Section 2.16.

2.22.4.7 TRAFFIC CONTROL PERSONNEL

The Design-Builder shall plan, conduct, and safely perform the Work. The Design-Builder shall manage temporary traffic control.

The Design-Builder shall provide all personnel for flagging; spotting; execution of all procedures related to temporary traffic control; and setup, maintenance, and removal of all

temporary traffic control devices and construction signs necessary to control traffic during construction operations.

2.22.4.7.1 Traffic Control Management

One or more of the Design-Builder's supervisors, who are actively involved in the planning and management of field Contract activities, shall assume the responsibilities for traffic control management. The Design-Builder shall provide WSDOT with a copy of the formal assignment. The duties of traffic control management may not be subcontracted.

The Design-Builder's traffic control management personnel shall be responsible for the following:

- Overseeing and approving the actions of the TCS to ensure that proper safety and traffic control measures are implemented and consistent with the specific requirements of the Project. An alternate form of oversight shall be in place and effective when the traffic control management personnel are not present at the Work area.
- Providing the Design-Builder's designated TCS with RFC MOT Plans which are compatible with the Work and traffic control for which they will be implemented.
- Having the latest adopted edition of the MUTCD, the *Washington State Modifications to the Manual on Uniform Traffic Control Devices*, and applicable standards and specifications available at all times on the Project.
- Discussing proposed traffic control measures and coordinating implementation of the MOT Plans with WSDOT.
- Coordinating all traffic control operations, including those of subcontractors and suppliers, with each other and with any adjacent construction or maintenance operations.
- Coordinating the Project's activities (such as ramp closures, road closures, and lane closures) with appropriate police, fire control agencies, city or county engineering, medical emergency agencies, school districts, and transit companies.
- Overseeing all requirements of the Contract that contribute to the convenience, safety, and orderly movement of vehicular and pedestrian traffic.
- Reviewing the TCS's diaries daily and being aware of field traffic control operations.
- Coordination, review, and retention of video log and storage.

Failure to carry out any of the above-referenced responsibilities shall be considered a failure to comply with the Contract and may result in a suspension of Work as described in Section 1-08 of the General Provisions.

2.22.4.7.2 Traffic Control Supervisor (TCS)

The Design-Builder shall designate one or more people to perform the duties of the primary TCS, and identify an alternate TCS who can assume the duties of the primary TCS in the event of that person's inability to perform. The TCS shall be responsible for safe implementation of the RFC MOT Plans.

Traffic Control Supervisors shall have at least five years of practical MOT experience with design and/or implementation of traffic control on freeway construction projects.

1 The TCS shall be certified as a Work Site Traffic Control Supervisor by one of the
2 following agencies:

3 The Northwest Laborers-Employers Training Trust
4 27055 Ohio Avenue
5 Kingston, WA 98346
6 (360) 297-3035

7 Evergreen Safety Council
8 401 Pontius Avenue North
9 Seattle, WA 98109
10 (800) 521-0778 or (206) 382-4090

11 American Traffic Safety Services Association
12 15 Riverside Parkway
13 Suite 100
14 Fredericksburg, Virginia 22406
15 (800) 272-8772 or (540) 368-1701

16 Possession of a current flagging card by the TCS is mandatory.

17 A TCS shall be present on the Project whenever flagging, spotting, or other traffic control
18 is occurring; or less frequently, as authorized by WSDOT.

19 During non-working hours, the TCS shall be on-Site within 45 minutes after notification
20 by WSDOT.

21 The TCS shall perform all of the duties listed below:

- 22 • Possess a current set of RFC MOT Plans; applicable Contract provisions as
23 provided by the Design-Builder; the *Washington State Modifications to the*
24 *Manual on Uniform Traffic Control Devices*; the MUTCD; the ATSSA *Quality*
25 *Guidelines for Work Zone Traffic Control Devices*; and applicable standards and
26 specifications.
- 27 • Inspect traffic control devices and nighttime lighting for proper location,
28 installation, message, cleanliness, and effect on the traveling public. Traffic
29 control devices shall be inspected at least once per hour during working hours,
30 except that Class A signs and nighttime lighting may be inspected only twice a
31 week. Traffic control devices left in place for 24 hours or more shall also be
32 inspected once during non-working hours when they are initially set up (during
33 daylight or darkness, whichever is opposite of the working hours). The TCS shall
34 correct, or arrange to have corrected, any deficiencies noted during these
35 inspections.
- 36 • Prepare a daily traffic control diary on each day that traffic control is performed
37 using the Contractor's Daily Report of Traffic Control - Summary (DOT Form
38 421-040A EF) and the Contractor's Daily Report of Traffic Control – Traffic
39 Control Log (DOT Form 421-040A EF). The Design-Builder shall maintain all
40 copies of the daily traffic control diaries and shall make them available to WSDOT
41 no later than the end of the next business day. The Design-Builder may use
42 alternate forms if approved by WSDOT. Diary entries shall include, but are not
43 limited to, the following:
 - 44 ○ Time of day when signs and traffic control devices are installed and
45 removed;

- Location and condition of signs and traffic control devices;
- Revisions to the MOT Plans;
- Lighting used at night;
- Observations of traffic conditions; and
- Identify MOT Plans in use and provide location on the Project where Plans are used.
- Make minor revisions to the MOT Plans to accommodate Site conditions, provided that the original intent of the MOT Plans is maintained. The revisions shall be documented in the daily traffic control diary. The MOT Plans shall be revised and re-released when determined necessary by the WTEM.
- Attend traffic control coordination meetings or coordination activities, including meetings and activities for adjacent projects, as necessary, for a complete understanding of the Project and effective performance.
- Ensure that all required traffic control devices and equipment are available and in good working condition prior to the need to install or use them.

Provided that the duties of the TCS are accomplished, the TCS may perform other duties described in this Section.

The TCS shall be considered a critical component of the Design-Builder's management team, and shall have prior experience managing MOT operations on similarly complex projects. Registration as a licensed Professional Engineer is not required; however, the Design-Builder may elect to use the WTEM in this position. The TCS shall attend all MOT Task Force meetings. The TCS shall also coordinate activities with the Communications Specialist.

The TCS or a designee shall be available on a 24-hour basis with a single contact phone number throughout the duration of the Project; supervise and verify all changes in the MOT setup; and perform daily Project reviews to verify that MOT devices are correctly placed and traffic is safely and efficiently moving through the Project. The TCS or an alternate TCS shall be on-Site within ***[45 minutes]*** of notification of an emergency situation, and shall be prepared to positively respond to the need to repair the traffic control system or to provide alternate traffic arrangements. The TCS shall have the resources, ability, and authority to expeditiously correct any deficiencies in the traffic control system, or to de-mobilize any construction operation that is resulting in excessive delays to traffic or creating an unsafe condition.

The TCS shall maintain a 30 Calendar Day advance schedule of all traffic control activities and a long-range schedule for all planned ramp and roadway closures. The TCS shall coordinate with the Design-Builder's Communications Specialist to ensure the information is disseminated to WSDOT, Local Agencies, and the public.

The TCS shall perform drive-through inspections as indicated above and immediately after any shift in MOT setup, while crews are still on-Site to make modifications. If the Project has signalized intersections, the review shall be done prior to each morning peak traffic period, and each signal cycle shall be reviewed. At least two of the daily inspections each week shall be performed at night so that the arrangement and condition of the lights can be reviewed. The inspections shall also include assurances that pedestrians and bicyclists have a safe travel path around or through the Project area, and that existing businesses have adequate access during business hours, if applicable. The results of the inspections shall be

Comment [J1b64]: time should be appropriate for the project location (ie. more remote locations should allow for more time.)

documented in a daily report that, at a minimum, lists the time frame of the drive-through inspection and the defects noted. The report shall also document any maintenance or corrective action ordered as a result of the inspection, and the name and position of the Design-Builder's personnel who have been directed to provide the maintenance or corrective action. The daily report shall state that the MOT setup and all traffic control devices substantially conform to the Contract requirements, except as noted, and shall be signed by the TCS.

2.22.4.7.3 Flaggers and Spotters

Workers engaged as flaggers or spotters shall wear reflective vests and hard hats. During hours of darkness, white coveralls or white or yellow rain gear shall be worn. The vests and other apparel shall be in accordance with Section 1-07 of the General Provisions.

Flaggers and Spotters shall be posted where shown on the RFC MOT Plans. All flaggers or spotters shall possess a current flagging card issued by the States of Washington, Oregon, Montana, or Idaho. The flagging card shall be immediately available and shown to WSDOT upon request.

Flagging stations shall be shown on MOT Plans at locations where construction operations require stopping or diverting public traffic. Flagging stations shall be staffed only when flagging is required. This staffing may be continuous or intermittent, depending on the nature of the construction activity. Whenever a flagger is not required to stop or divert traffic, the flagger shall move away from the flagging station to a safer location. During hours of darkness, flagging stations shall be illuminated in a manner that ensures that flaggers can be seen easily, but that does not cause glare to the traveling public. Flaggers shall be equipped with portable two-way radios, with a range suitable for the Project. The radios shall be capable of having direct contact with Project management (e.g., foremen and superintendents).

The Design-Builder shall provide the standard stop/slow paddles for all flagging operations. Stop/slow paddles shall conform to the Standard Specifications.

Spotting stations shall be shown on MOT Plans at locations where a spotter can detect errant drivers or other hazards, and provide an effective warning to other workers.

Spotting stations will not be allowed at locations where the spotter will be in unnecessary danger. The Design-Builder shall provide noise-makers or other effective warning devices for spotting operations. The duties of a spotter shall not include flagging. No flaggers or spotters shall be used on freeways.

2.22.4.7.4 Other Traffic Control Labor

In addition to flagging or spotting duties, the Design-Builder shall provide personnel for all other traffic control procedures required by the construction operations; and personnel to install, maintain, and remove any traffic control devices shown on the MOT Plans.

2.22.4.8 VIDEO RECORD

A drive-through video of all MOT devices shall be made each week; immediately after each accident causing injuries; and after each shift in MOT setup. The video recordings shall be saved digitally and maintained in a remote, fireproof location, and a log of the video recordings with dates and times shall be provided to WSDOT on a monthly basis. WSDOT shall have the right to review the video recordings at any time with 24 hours' notice to the Design-Builder.

2.22.4.9 TRAFFIC CONTROL PROCEDURES

2.22.4.9.1 One-Way Traffic Control

The Work may require that traffic be maintained on a portion of the roadway using one-way traffic control. If this is the case, the Design-Builder's operation shall be confined to one-half of the roadway, permitting traffic on the other half. If shown on the RFC MOT Plans or as directed by WSDOT, one-way traffic control shall be provided and shall also conform to the following requirements:

- In any one-way traffic control configuration, side roads and approaches shall be closed or controlled by a flagger or by appropriate approved signing. A side road flagger shall coordinate with end flaggers where there is line of sight and with the pilot car where the end flaggers cannot be seen.
- Queues of vehicles shall be allowed to take turns passing through the Work zone in the single open lane. When one-way traffic control is in effect, Design-Builder vehicles shall not use the open traffic lane except while following the same rules and routes required of the public traffic.

At the end of each Calendar Day the Design-Builder shall leave the Work area in such condition that it can be traveled without damage to the Work, without danger to traffic, and without one-way traffic control. If, in the opinion of WSDOT, one-way traffic control cannot be dispensed with after working hours, then the operation shall be continued throughout the non-working hours.

2.22.4.9.2 Rolling Slowdown

When a short-term roadway closure of 15 minutes or less is needed for an infrequent, non-repetitive Work operation such as traffic signal erection or utility wire crossing, the Design-Builder may implement a rolling slowdown on a multi-lane roadway, as part of an RFC MOT Plan. Rolling slowdown traffic control operations shall not be used for routine Work that can be addressed by standard lane or shoulder closure traffic control. ***Insert allowable times [Rolling slowdowns on southbound SR 167 will only be permitted between 12:01 a.m. and 4:00 a.m., on Monday, Tuesday, Wednesday, Thursday, and Friday.]*** Rolling slowdowns will not be permitted to set girders.

Where included in the RFC MOT Plans, a rolling slowdown shall be accomplished using one traffic control vehicle with flashing amber lights for each lane to be slowed down, plus one control vehicle to serve as a chase vehicle for traffic ahead of the blockade. The Design-Builder shall provide and pay for a minimum of two Washington State Patrol officers per direction, for mainline rolling slowdowns. The traffic control vehicles shall enter the roadway and form a moving blockade to reduce traffic speeds and create a clear area in front of the moving blockade to accomplish the Work without a complete stoppage of traffic.

A PCMS shall be placed ahead of the starting point of the traffic control to warn traffic of the slowdown. The sign shall be placed far enough ahead of the Work to avoid any expected backup of vehicles.

The location where the traffic control vehicles begin the slowdown and the speed at which the moving blockade is allowed to travel shall be calculated by the Design-Builder to accommodate the estimated time needed for closure. The chase control vehicle shall follow the slowest vehicle ahead of the blockade. The Design-Builder shall not begin the

Comment [j1b65]: delete or revise as applicable to the project.

Work operation until the chase vehicle passes the Work area. In the event that the Work operation is not completed when the moving blockade reaches the site, all Work, except the Work necessary to clear the roadway, shall cease immediately, and the roadway shall be cleared and re-opened as soon as possible.

All ramps and entrances to the roadway between the moving blockade and the Work operation shall be temporarily closed using construction vehicles. Radio communications between the Work operation and the moving blockade shall be established and utilized to adjust the speed of the blockade to accommodate the closure time needed.

If more than one rolling slowdown occurs during the same period, the Design-Builder shall ensure that any queues originating from previous rolling slowdowns have fully dissipated.

2.22.4.9.3 Lane Closure Setup/Takedown

Where allowed by the Contract and where shown on the RFC MOT Plans or as directed by WSDOT, the Design-Builder shall establish traffic control measures to close one or more lanes of a multi-lane facility. When this is scheduled to occur, the Design-Builder shall adhere to the following sequence:

- Set up advance warning signs on the shoulder of the roadway opposite the lane to be closed;
- Set up advance warning signs on the same shoulder as the lane to be closed;
- Move a TA with arrow board into place at the beginning of the closure taper;
- Place channelization devices to mark the taper and the length of the closure as shown on the MOT plans; and
- Once the lane is closed, the TA/arrow board combination may be replaced with an arrow board without attenuator.

If additional lanes are to be closed, this shall be done in sequence with previous lane closures, using the same sequence of activities. A TA with arrow board is required during the process of closing each additional lane, and may be replaced with an arrow board without attenuator after the lane is closed. Each closed lane shall be marked with a separate arrow board at all times.

Traffic control for lane closures shall be removed in the reverse order of its installation.

2.22.4.9.4 Patrol and Maintain Traffic Control Measures

When temporary traffic control measures are in place, the Design-Builder shall patrol and maintain these measures, at all times. The Work shall consist of resetting displaced devices; assuring visibility of all devices; cleaning and repairing where necessary; providing maintenance for all equipment, including replacing batteries and light bulbs, as well as keeping motorized and electronic items functioning; and adjusting the quantity and location of devices to respond to actual conditions, such as queue length, unanticipated traffic conflicts, and other areas where planned traffic control has proven ineffective.

This Work shall be performed by the Design-Builder, either by or under the direction of the TCS. Personnel, with vehicles if necessary, shall be dispatched so that all traffic control can be reviewed at least once per hour during working hours, and at least once during each Calendar Day.

2.22.4.10 TRAFFIC CONTROL DEVICES

Traffic control devices are used to visually guide drivers through Work zones. Signing, channelizing devices, arrow boards, and warning beacons all display a message to the driver. Work zone credibility is established through the proper use of these devices to send correct messages to drivers. Poor Work zone credibility has a direct, negative impact on Work zone safety by causing driver confusion, frustration, and disrespect, which results in an increased potential for accidents.

All traffic control devices shall be placed behind barrier or guardrail away from traffic when not in use. In areas where traffic control devices cannot be placed behind barrier or guardrail, the devices may be placed on the shoulder of the roadway when the shoulder width is between 4 and 8 feet. When the shoulder width is less than 4 feet, the devices shall be placed off the paved shoulder and a minimum of 8 feet from the traveled lanes. When the shoulder width is greater than 8 feet, the devices shall not be stored on the shoulder of the roadway. The Design-Builder shall locate traffic control devices so as not to block the existing sidewalk to pedestrians, and to provide adequate space for wheelchairs.

2.22.4.10.1 Construction Signs

All construction signs required by the RFC MOT Plans, as well as any other appropriate signs directed by WSDOT, shall be provided by the Design-Builder. The Design-Builder shall provide the posts or supports, and erect and maintain the signs in a clean, neat, and presentable condition until they are no longer required. Post-mounted signs shall be installed as shown in the Standard Plans. Sign attachment to posts shall conform to the applicable detail shown in the Standard Plans. When the construction signs are no longer required, the Design-Builder shall remove all signs, posts, and supports from the Project and they shall remain the property of the Design-Builder.

No passing zones on the existing roadway, if any, that are marked with paint striping and where striping is anticipated to be destroyed by construction operations shall be replaced by "Do Not Pass" and "Pass With Care" signs. The Design-Builder shall furnish and install the signs and posts. The signs shall be maintained by the Design-Builder until they are removed, or upon Physical Completion. When the Project includes striping by the Design-Builder, the signs and posts shall be removed by the Design-Builder when the no-passing zones are re-established by striping. The signs and posts shall become the property of the Design-Builder.

All existing signs, new permanent signs installed as part of the Work, and construction signs installed as part of the Work that are inappropriate for the traffic configuration at a given time, shall be removed or completely covered with metal, plywood, or an approved product specifically manufactured for sign covering, during periods when they are not needed.

Construction signs are divided into two classes. Class A construction signs are those signs that remain in service throughout the construction or during a major phase of the Work. They are mounted on posts, existing fixed structures, or substantial supports of a semi-permanent nature. Class A signs shall be designated as such on the RFC MOT Plans. "Do Not Pass" and "Pass With Care" signs are Class A construction signs. Sign and support installation for Class A signs shall be in accordance with the Contract or the Standard Plans. Class B construction signs are those signs that are placed and removed daily, or are

used for short durations which may extend for one to three Calendar Days. They are mounted on portable or temporary mountings.

Class A construction signs mounted behind traffic barrels shall be mounted a minimum of 5 feet above the ground (ground to bottom of sign).

Where it is necessary to add weight to signs for stability, the Design-Builder shall follow the manufacturer's recommendations for sign ballasting.

Signs, posts, or supports that are lost, stolen, damaged, destroyed, or which WSDOT deems to be unacceptable while used on the Project, shall be replaced by the Design-Builder.

2.22.4.10.2 Sequential Arrow Signs

Sequential arrow signs shall be shown on the MOT Plans as either a stand-alone unit without a TA or as a unit with a TA. When required, and as shown on the MOT Plans, the Design-Builder shall provide, operate, and maintain the sequential arrow signs.

2.22.4.10.3 Portable Changeable Message Signs (PCMS)

Where shown on the RFC MOT Plans or when requested by WSDOT, the Design-Builder shall provide, operate, and maintain PCMS. The Design-Builder shall provide a minimum of four PCMS available for use throughout the duration of the Project, and shall provide additional PCMS as required. These signs shall be available on-Site for the entire duration of their anticipated use.

2.22.4.10.4 Barricades

Where shown on the RFC MOT Plans or when requested by WSDOT, the Design-Builder shall furnish, install, and maintain barricades. Barricades shall be kept in acceptable condition, as defined in the *ATSSA Quality Guidelines for Work Zone Traffic Control Devices*.

Where it is necessary to add weight to barricades for stability, the Design-Builder shall follow the manufacturer's recommendations for sign ballasting.

2.22.4.10.5 Traffic Safety Drums

Where shown on the RFC MOT Plans, or when requested by WSDOT, the Design-Builder shall furnish, install, and maintain traffic safety drums.

The Design-Builder shall use traffic safety drums with two white and two fluorescent orange 6-inch wide bands of wide angle prismatic retroreflective sheeting as specified in this Section or Type C steady-burning lights in accordance with Sections 9-28.12 and 9-35.7 of the Standard Specifications. All traffic safety drums shall be the same type.

Used traffic safety drums may be utilized, provided all drums used on the Project are of essentially the same configuration and in acceptable condition, as defined in the *ATSSA Quality Guidelines for Work Zone Traffic Control Devices*. Used traffic safety drums shall meet the requirements of this Section.

Traffic safety drums shall be designed to resist overturning by means of a weighted lower unit that shall separate from the drum when impacted by a vehicle.

Traffic safety drums shall be regularly maintained to ensure that they are clean and that the drum and reflective material are in good condition. When a drum has been damaged

beyond usefulness, or provides inadequate reflectivity, a replacement drum shall be provided by the Design-Builder at no cost to WSDOT.

When the traffic safety drums are no longer required, they shall be removed from the Project and shall remain the property of the Design-Builder.

2.22.4.10.6 Traffic Cones

Where shown on the RFC MOT Plan, or when requested by WSDOT, the Design-Builder shall furnish, install, and maintain traffic cones. The Design-Builder shall not use traffic cones on state highways. Traffic cones shall be kept in good repair, and shall be removed immediately when directed by WSDOT. Where wind or moving traffic frequently displaces cones, an effective method of stabilizing cones, such as stacking two together at each location, shall be employed.

2.22.4.10.7 Tubular Markers and Tall Channelizing Devices

The Design-Builder shall not use tubular markers or tall channelizing devices on state highways for temporary lane closures or temporary channelization.

2.22.4.10.8 Warning Lights and Flashers

The Design-Builder shall provide and maintain Type C steady-burning lights attached to all traffic safety drums used for lane closures or shifting tapers during hours of darkness in accordance with Sections 9-28.12 and 9-35.7 of the Standard Specifications.

2.22.4.10.9 Wide Angle Prismatic Retroreflective Sheeting

The Design-builder shall provide and maintain orange traffic safety drums with two white and two fluorescent orange 6-inch wide bands of wide angle prismatic retroreflective sheeting as specified below.

The wide angle prismatic retroreflective sheeting is sheeting with optimized performance at traditional observation angles and with extended entrance angle performance. The fluorescent orange sheeting shall be a visible activated fluorescent retroreflector providing higher daytime brightness than ordinary colored sheeting's of similar chromaticity. The white sheeting shall be a high brightness retroreflector providing higher brightness than non-prismatic sheeting's of similar chromaticity.

The retroreflector sheeting shall have a smooth surface with a distinctive interlocking diamond seal pattern visible from the face. The sheeting shall be pre-coated with a pressure sensitive adhesive backing protected by a removable liner.

2.22.4.10.9.1 Test Methods

Test Conditions: Unless otherwise specified herein, all applied and unapplied test samples and specimens shall be conditioned at the standard condition of 73 degrees Fahrenheit (plus or minus 3 degrees F) and 50 percent relative humidity (plus or minus 5 percent) for 24 hours prior to testing.

Test Panels: Unless otherwise specified herein, when tests are to be performed using test panels, the specimens of retroreflective material shall be applied on smooth aluminum cut from ASTM B-209 Alloy 5052-H36.

Comment [DC66]: As of October 2014: this spec is currently being revised by NWR Traffic. Will update when finalized.

2.22.4.10.9.2 Physical Requirements

The wide angle prismatic retroreflective sheeting shall meet the following physical requirements:

Color

The color shall be in conformance to color requirements of Table I.

Table I - Color specification limits for new sheeting (daytime)

| Color | Chromaticity Coordinate 1 | | Chromaticity Coordinate 2 | | Chromaticity Coordinate 3 | | Chromaticity Coordinate 4 | | Total Luminance Factor Limit, YF | |
|--------------------|---------------------------|------|---------------------------|------|---------------------------|------|---------------------------|------|----------------------------------|------|
| | x | y | x | y | x | y | x | y | min. | max. |
| White | .305 | .305 | .355 | .355 | .335 | .375 | .285 | .325 | 40 | - |
| Fluorescent Orange | .506 | .404 | .562 | .350 | .645 | .355 | .507 | .429 | 30 | - |

Fluorescence

The fluorescence shall be in conformance to fluorescence luminance factor requirements of Table II.

Table II

| Sheeting Type | Fluorescence Luminance Factor Limit, YF Min. |
|--------------------|--|
| Fluorescent Orange | 15 |

Conformance to color and fluorescence requirements of Table I and II shall be determined instrumentally on sheeting applied to aluminum test panels, using a 2-monochromator spectrophotometer employing annular 45/0 (or equivalent 0/45) illuminating and viewing geometry. The total chromaticity coordinates and total luminance factor shall be calculated from the total spectral radiance factors computed for CIE illuminant D65 in accordance with ASTM E-308, *Practice for computing the colors of objects by using the CIE system* for the CIE 1931 (2 degrees) standard colorimetric observer. The measurement shall be made on a labsphere BFC-450 bispectral fluorescence colorimeter or equivalent.

Coefficient of Retroreflection, R_A

The coefficients of retroreflection shall not be less than the minimum values specified in Table III according to the sheeting type. Testing shall be in accordance with ASTM E-810. The coefficients of retroreflection shall be specified in candelas per lux per square meter.

**Table III – Minimum Coefficient of Retroreflection RA
 (Candelas per lux per square meter)**

| Observation Angles (degrees) | Entrance Angles (degrees) | | |
|---------------------------------|---------------------------|-----|-----|
| | -4 | 30 | 45 |
| White | | | |
| 0.10 | 1000 | 600 | 180 |
| 0.20 | 550 | 300 | 130 |
| 0.50 | 200 | 100 | 50 |
| 1.00 | 12 | 15 | 15 |
| Fluorescent Orange | | | |
| 0.10 | 375 | 200 | 50 |
| 0.20 | 200 | 120 | 40 |
| 0.50 | 80 | 50 | 30 |
| 1.00 | 10 | 10 | 10 |

Gloss

The retroreflective sheeting shall have an 85-degree specular gloss of not less than 50 when tested in accordance with ASTM D-523.

Flexibility

The retroreflective sheeting with the liner removed and conditioned as in the test method described below shall be sufficiently flexible to show no cracking when slowly bent, in one second's time, around a 3.2 millimeter mandrel, with the adhesive contacting the mandrel, at test conditions. Talcum powder shall be spread on the adhesive to prevent sticking to the mandrel.

Adhesive

Protective liner attached to the adhesive shall be removable by peeling without soaking in water or other solutions and without breaking, tearing, or removing any adhesive from the backing. Protective liner shall be easily removed following accelerated storage for 4 hours at 158 degrees Fahrenheit under a weight of 2.5 pounds per square inch. The adhesive backing of the retroreflective sheeting shall produce a bond to support at 1.75-pound weight for 5 minutes without the bond peeling for a distance of more than 2 inches when applied to a test panel prepared in accordance with this section. Apply 4 inches of a 1-inch by 6-inch specimen to a test panel. Condition and then position the panel face-down horizontally, suspend the weight from the free end of the sample, and allow it to hang free an angle of 90 degrees to the panel surface for 5 minutes.

Impact resistance

The retroreflective sheeting applied according to the sheeting manufacturer's recommendations to a test panel of alloy 6061-T6, 0.04 inch by 3 inches by 5 inches, and conditioned in accordance with this Section shall show no cracking outside the impact area when the face of the panel is subjected to an impact of 100 inch-pounds using a weight with a 5/8 inch diameter rounded tip dropped from a height necessary to generate an impact of 100 inch-pounds, at test temperatures of both 32 degrees Fahrenheit and 72 degrees Fahrenheit.

Resistance to accelerated outdoor weathering

The retroreflective surface of the sheeting shall be weather resistant and show no appreciable cracking, blistering, crazing, or dimensional change after 1 year unprotected outdoor exposure, facing the equator, and inclined 45 degrees from the vertical. Following weather exposure, panels shall be washed in a 5 percent HCL solution for 45 seconds, rinsed thoroughly with clean water, blotted with a soft clean cloth, and brought to equilibrium at standard conditions. After cleaning, the coefficient of retroreflection shall not be less than 50 percent of the values in Table III when measured according to ASTM E 810. The color shall conform to the chromaticity coordinates of Table I, and the minimum fluorescence luminance factor Y_F shall not be less than 10. The sample shall:

- Show no appreciable evidence of cracking, scaling, pitting, blistering, edge lifting or curling, or more than 1/32 inch shrinkage or expansion.
- When more than one panel of a color is measured, the coefficient of retroreflection shall be the average of all determinations.

Optical stability

Three pieces of new retroreflective sheeting applied test panels and conditioned in accordance with this Section shall each first have their photometric properties characterized by measuring the coefficients of retroreflection according to the provisions in this Section at all test geometries shown in Table III. These panels shall then be exposed in an air circulating oven at 160 degrees Fahrenheit (plus or minus 5 degrees) for a period of 24 hours. After exposure the panels shall be allowed to condition according to the provisions in this Section. These panels will again be characterized for photometric properties by measuring the coefficients of retroreflection according to the provisions of this Section at all test geometries measured before exposure. The coefficients of retroreflection measured after exposure shall be between 80 percent and 120 percent of the values shown in Table III.

Resistance to Corrosion

The retroreflective sheeting applied to a test panel and conditioned in accordance with this Section shall show no loss of adhesion, appreciable discoloration or corrosion, and after cleaning shall retain a minimum of 80 percent of the specification minimum when measured at 0.2 degrees observation, -4 degrees entrance angle after 1,000 hours exposure to a 5 percent concentration salt spray at 35 degrees when tested in accordance with ASTM B 117.

General Characteristics

The retroreflective sheeting applied to traffic control devices shall be free from ragged edges, cracks, and extraneous materials.

2.22.4.10.10 Transportable Attenuator (TA)

Where shown on the RFC MOT Plans, or when requested by WSDOT, the Design-Builder shall provide, operate, and maintain TA's. These TA's shall be available, on-Site, for the entire duration of their anticipated use.

The TA shall be placed on each closed lane to separate and protect construction Work zone activities from normal traffic flow. During use, the attenuator shall be in the full down-and-locked position. For stationary operations, the truck's parking brake shall be set.

A TA may be used in lieu of a temporary impact attenuator as part of a stage traffic control shift to protect an object such as a blunt barrier end or a bridge pier column that is located within the Work zone clear zone. This use of a TA is restricted to a maximum of 24 hours unless the WSDOT Engineer approves an extension.

2.22.4.10.11 Temporary Concrete Barrier (TCB)

Impact attenuators shall be used to protect the ends of barrier within the clear zone. Refer to Sections 6-10 and 8-17 of the Standard Specifications and Chapters 1610, 1620, 1010, and 1030 of the *WSDOT Design Manual* for material and construction details regarding the barrier, glare screen, attenuators, and barrier delineators. Glare screen on TCB shall conform to the requirements of this Section and the Special Provisions.

2.22.5 SUBMITTALS

The TMP and TIMP shall be submitted and approved by WSDOT prior to commencement of any construction activity that has the potential to impact traffic. MOT Plans for individual construction phases require a Preliminary Design Submittal and a Final Design Submittal prior to approval for each phase of construction.

2.22.5.1 TRAFFIC MANAGEMENT PLAN (TMP)

The Design-Builder shall submit six copies of the Draft TMP to WSDOT. WSDOT will respond to the submittal within 14 Calendar Days of receipt.

The Design-Builder shall prepare a Final TMP for WSDOT's approval, responding to all WSDOT comments. The Final TMP shall carry the WTEM's Professional Engineering stamp. The Design-Builder shall submit six copies and an electronic copy of the Final TMP to WSDOT. WSDOT will respond to the Final TMP within 14 Calendar Days of receipt. The TMP must be approved prior to commencement of any construction activity that has the potential to impact traffic. Changes to the TMP shall be prepared and submitted to WSDOT for approval 14 Calendar Days after the need to change is recognized by WSDOT or the Design-Builder.

2.22.5.2 TRAFFIC INCIDENT MANAGEMENT PLAN (TIMP)

The Design-Builder shall submit six copies of the Draft TIMP to WSDOT within 30 Calendar Days of Notice to Proceed. WSDOT will provide comments on the Draft TIMP within 14 Calendar Days of receipt.

The Design-Builder shall prepare a Final TIMP for WSDOT approval responding to all WSDOT comments. The Final TIMP shall carry the WTEM's Professional Engineering stamp. The Design-Builder shall submit six copies and an electronic copy of the Final TIMP to WSDOT. WSDOT will respond to the Final TIMP within 14 Calendar Days of receipt. The TIMP must be approved prior to commencement of any construction activity that has the potential to impact traffic. Changes to the TIMP shall be prepared and submitted to WSDOT for approval 14 Calendar Days after the need to change is recognized by WSDOT or the Design-Builder.

2.22.5.3 MAINTENANCE OF TRAFFIC (MOT) PLANS

The Design-Builder shall submit MOT Plans to WSDOT for Review and Comment prior to the Preliminary and Final Design Submittals. The Design-Builder may submit MOT Plans separately for each phase of construction. The plans must be distributed and Released for Construction prior to implementation. The Design-Builder shall consider the review times

when planning for implementation of the MOT phases. Reviews will only be waived or expedited if the Design-Builder obtains approval from the WSDOT Engineer. WSDOT may, at its discretion, waive a review.

The Design-Builder shall prepare plan sheets in MicroStation format and in accordance with the Mandatory Standards and the *WSDOT Plans Preparation Manual*.

The Preliminary Design Submittal shall show lane configurations including typical cross-sections, signing, and Work zones. General notes to show the intent shall also be included. Stations and offsets of barriers, lane lines, edge lines, and tapers shall be included in the Preliminary Design Submittal. Stations and offsets of PCMS and signs are not required for the Preliminary Design Submittal. The Design-Builder shall submit six copies and one electronic copy of the MOT Plans to WSDOT for Review and Comment. WSDOT will provide comments on the Preliminary Design Submittal MOT Plans within 14 Calendar Days of receipt.

The Final Design Submittal shall include, but is not limited to, all required details including station and offset for all elements, cross-sections, temporary paving, pavement marking details, signing, traffic control devices, temporary or modified traffic signals, and temporary lighting. The Design-Builder shall submit six copies and one electronic copy of the MOT Plans to WSDOT for Review and Comment. WSDOT will provide comments on the Final Design Submittal MOT Plans within 14 Calendar Days of receipt.

When all comments from the Final Design Submittal MOT Plans have been incorporated, the Design-Builder shall prepare Released for Construction MOT Plans, carrying the stamp of a Professional Engineer licensed under Title 18 RCW. For roadways outside of limited access, the Design-Builder shall submit plans for review and approval to the Local Agencies responsible for the roadway. The Design-Builder shall provide an informational copy of the submittal to WSDOT. The Design-Builder shall allow a minimum of 14 Calendar Days for the Local Agencies to review the plans. If the plans are not approved, they must be corrected and resubmitted until they are approved. Once approval is received and all requirements of the Quality Management Plan are satisfied, the plans may be Released for Construction. The Design-Builder shall provide four sets of the approved Released for Construction MOT Plans to WSDOT prior to implementation.

The Released for Construction MOT Plans shall be distributed to all stakeholders a minimum of 14 Calendar Days prior to implementation of any lane, ramp, sidewalk, or roadway closures or detours, in order to allow for public notification.

2.22.5.4 TEMPORARY SIGNAL PLANS

Temporary signal plans shall be submitted to WSDOT or the operating agency for approval prior to commencement of construction for temporary signals. Temporary signal plans shall be submitted as part of the MOT Plans packages for the phase in which they will be required.

2.22.5.5 TEMPORARY ILLUMINATION PLANS

Lighting level calculations, including electronic files, shall be submitted to WSDOT for Review and Comment prior to planning any pavement marking changes. When the analysis shows temporary illumination is required, the Design-Builder shall submit temporary illumination plans as part of the MOT Plans package for the stage in which the illumination will be required.

2.22.5.6 TRANSFER/TRANSPORT VEHICLE (TTV) AND QUICKCHANGE MOVEABLE BARRIER (QMB)

This Section has been intentionally omitted.

2.22.5.7 OTHER SUBMITTAL REQUIREMENTS

The Design-Builder shall deliver to WSDOT a list of all parties invited to take part in the MOT task force, and the responses to all of the invitations. The Design-Builder shall take meeting minutes and distribute them to all task force members in accordance with Section 2.1.

A copy of the MOT diary shall be submitted to WSDOT on a monthly basis. Upon Completion of the Project, the MOT diaries shall be delivered to and become the property of WSDOT.

A closure plan shall be submitted for each full highway closure. The Design-Builder shall submit the closure plan to WSDOT for Review and Comment at least 30 Calendar Days prior to the scheduled closure.

End of Section

2.10 UTILITIES AND RELOCATION AGREEMENTS

2.10.1 GENERAL

2.10.1.1 SCOPE

WSDOT has identified Utilities within the Project limits. These Utilities are described in the *Existing Utility Listing* (Appendix U). The Design-Builder shall avoid, Protect in Place (either permanently or temporarily), or Relocate these Utilities during construction. The Design-Builder, in coordination with the Utility Owner, shall consider all options during the design process.

Utilities that are identified as Prior Relocation on the *Existing Utility Listing* (Appendix U) are in conflict with the Basic Configuration. The Utility Owner or its contractors will relocate these Utilities prior to ***insert date***.

Additional Relocation Work may be necessary to construct the Project. The Design-Builder shall be responsible for determining what, if any, additional Utility Relocations will be required; and shall work with Utility Owners to design and construct such Relocations in compliance with the Contract.

Incidental Utility Work and any additional Relocation Work that becomes necessary due to the Design-Builder's design, the Design-Builder's correction of any inaccuracies in the Utility Information, changes made by the Design-Builder to the Conceptual Plans, or otherwise, shall be addressed in accordance with this Section and Section 1-07.17 of the General Provisions.

Each Utility Relocated by the Project shall be placed in a location that is Forward Compatible. All exceptions shall be approved in writing by WSDOT before proceeding with the Relocation Work for the excepted Utility.

2.10.1.2 UTILITY CATEGORY

All Private Utilities are classified as Category #1, except as noted.

The following are considered Public Utilities:

- ***[City of Pacific.
- City of Algona.
- City of Auburn.
- King County Metro.
- Bonneville Power Administration.
- City of Kent.]***

2.10.2 MANDATORY STANDARDS

The following is a list of Mandatory Standards that shall be followed for all design and construction related to this Section. They are listed in hierarchical order, where the Mandatory Standards listed higher in the list shall take precedence over those listed below them. If a Mandatory Standard contains a reference to another document that is not listed below and states that the referenced document shall be used, the referenced document shall also be considered to be a Mandatory Standard with the same hierarchal precedence as the

Comment [Jlb1]: May 5, 2015 8:47 AM Phil Larson says:
General WSDOT "Utilities" are not covered in this section. Do we need to create a new section for them?

Comment [Jlb2]: May 26, 2015 4:48 PM John Collins says:
WSDOT "utilities" are not considered utilities and so are not included in this section. They are addressed in sections about electrical, ITS, and drainage. Locations of existing WSDOT facilities are covered in the "One-Call spec."

Response - No Change

Comment [Jlb3]: Optional language. Use if forward compatibility is applicable to the project.

Comment [Jlb4]: May 15, 2015 8:35 AM Ahmer Nizam says:
2.10.1.2 What is the purpose/necessity of categorizing utilities? State law does not differentiate between public or private utilities, except for city utilities within managed access state highways.

Response - No Change in Language

Comment [Jlb5]: May 21, 2015 5:02 AM John Collins says:
In earlier Design-Build Projects, Category 1 and Category 2 Utilities were defined in Chapter 1 of the RFP as either those utilities whose relocation costs were to be paid by the State (and thus the DB Contractor) or those whose relocation costs were to be paid by the Utility. When public utilities opted to have the relocation work included in the State's project regardless of responsibility for the cost, these were separated out as "Public Utilities." Frankly, the use of the terms Category 1 and Category 2 to distinguish cost responsibility can be confused with the Categories described in the Utilities Manual. I would suggest that we change the terms of the

Comment [Jlb6]: May 21, 2015 11:53 AM Paul Mayo says:
My understanding is Cat 1 are where State has prior rights, Cat 2 is where Utility has prior rights. Cat 1 the utility owner pays for the relocation, Cat 2 WSDOT (Design builder) pays. the public versus private related to the fact that public owners have

Comment [Jlb7]: May 26, 2015 4:52 PM John Collins says:
That is fundamentally correct, Paul. However, WSDOT is not the "pass-through" for the money. Rather, WSDOT enters into utility agreements with the public utility owners to collect a reasonable and agreed amount for relocation work to replenish th

Comment [Jlb8]: May 15, 2015 8:39 AM Ahmer Nizam says:
2.10.2 Some of the listed standards may conflict with WSDOT and WAC requirements (e.g. the NESC may allow for 18' or overhead electrical line clearance where the WAC requires 24'). It would be better to list the Accommodation Policy and Man

Comment [Jlb9]: May 26, 2015 4:52 PM John Collins says:
I agree that the hierarchy should be revisited.

Response - Verify the hierarchical order

source publication. This is not a comprehensive list; other applicable standards may be required to complete the design and construction. If the Design-Builder becomes aware of any ambiguities or conflicts relating in any way to the Mandatory Standards, the Design-Builder shall immediately notify the WSDOT Engineer.

All Utility Work (whether performed by the Design-Builder or by the Utility Owner) shall comply with the Mandatory Standards, all applicable Governmental Rules, any applicable franchises or permits, the Utility Standards required by the applicable Utility, and any applicable Utility Standards provided in the RFP Appendices. The Design-Builder shall be responsible for obtaining Utility Standards from the Utility Owners, and for obtaining all other Mandatory Standards relating to the Utility Work.

- Utility Standards (applicable to the particular Utility Owner).
- *Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards* (49 CFR Part 192).
- Special Provisions (Appendix B).
- *Amendments to the Standard Specifications* (Appendix B).
- Standard Specifications (Appendix B).
- *WSDOT Utilities Manual* (M22-87) (Appendix D).
- *WSDOT Utilities Accommodation Policy* (M22-86) (Appendix D).
- *WSDOT Bridge Design Manual* (M23-50) (Appendix D)
- *WSDOT Local Agency Guidelines* (M36-63) (LAG) (Appendix D).
- Standard Plans (Appendix D).

2.10.3 PERSONNEL REQUIREMENTS

2.10.3.1 UTILITY ENGINEER

The Design-Builder shall provide a Utility Engineer to manage and coordinate all aspects of Utility Work. The Utility Engineer shall have ~~***three***~~ years' experience managing Utility Relocation Work on linear public transportation projects. The Utility Engineer shall attend and lead all Project Utility coordination meetings.

2.10.4 PERFORMANCE REQUIREMENTS

2.10.4.1 REIMBURSEMENT TO AND COLLECTION FROM UTILITY OWNERS

2.10.4.1.1 Reimbursement to Utility Owners - General

The Design-Builder shall deliver copies of all invoices received from Utility Owners to WSDOT within 14 Calendar Days of receipt. If the Design-Builder fails to make any payment to a Utility Owner as specified in Section 1-07.17 of the General Provisions or elsewhere in the Contract on or before the deadline stated in the applicable Relocation Agreement (or if no deadline is stated, then the payment shall be made within 30 Calendar Days after receipt of the Utility Owner's invoice), then WSDOT will have the right to pay the Utility Owner the amount due (including interest, penalties, or both). If WSDOT pays a Utility Owner, the Design-Builder shall reimburse WSDOT for such payment within 14 Calendar Days after receipt of WSDOT's invoice; or WSDOT, at its discretion, may

Comment [Jlb10]: May 21, 2015 1:08 PM Paul Mayo says:
WSDOT should provide these and any post bid changes to standards should be a 1-04 change

Comment [Jlb11]: May 26, 2015 4:54 PM John Collins says:
Typically, the standards from the various utility owners are either included as appendices for reference or the responsibility to obtain the current standards is placed on the Design-Builder.

1-07.17 DBer is responsible for changes to utility standards – AGC requests that a baseline be established at time of RFP.

Response - WSDOT should establish standard with utility agreement- John/Ahmer – does this change this spec or 1-07.17 language? tfe

Comment [Jlb12]: May 21, 2015 1:15 PM Paul Mayo says:
the requirement for a utility engineer should be optional based on project nature

Guidance to Engineer to delete if not significant utility work

Comment [Jlb13]: adjust as necessary to fit the project needs.

Comment [ET14]: Use if applicable – delete and replace with “This section is intentionally omitted”

Comment [Jlb15]: May 15, 2015 8:46 AM Ahmer Nizam says:
2.10.4.1 - General Comment on cost responsibility. State law is very prescriptive regarding cost responsibility for utility work associated with state highway projects. Utilities can only be reimbursed for relocation if they have a prior compensable property right. If they are located under a state issued permit or franchise, the utility is responsible for the costs. There needs to be some way for the DB to understand when payment to a utility is allowable (1-07.17 does not address this). This is further complicated when utility companies dispute their cost responsibilities. Perhaps the DB should verify cost responsibility with the Region Utility Engineer?

Comment [Jlb16]: May 21, 2015 1:17 PM Paul Mayo says:
DBers need to rely on WSDOT's determination of cost responsibility (stand behind the cat 1 vs cat 2 designations. contract has always been fine in this regard

Comment [Jlb17]: May 20, 2015 4:31 PM Ahmer Nizam says:
2.10.4.1.1 General - May need to specify that elements of utility work that would be considered to be betterments are not reimbursable to the utility

Comment [Jlb18]: May 21, 2015 1:19 PM Paul Mayo says:
betterments have a definition in chapter 1--AGC is good with this profile

Response – no change to language

deduct the amount of reimbursement due from the next payment (or payments, if necessary) due to the Design-Builder under the Contract.

2.10.4.1.2 Collection from Utility Owners - General

The Design-Builder shall provide WSDOT copies of all invoices sent to Utility Owners within 14 Calendar Days of invoice. If the Utility Owner fails to make any payment to the Design-Builder for Relocation Costs consistent with the applicable franchise, permit, and Governmental Rules, the Design-Builder shall notify WSDOT.

2.10.4.2 MAINTENANCE AND CARE DURING CONSTRUCTION

The Design-Builder shall carry out all Work affecting Utilities carefully and skillfully, and shall support, secure, and exercise care with respect to Utilities to avoid damaging them.

The Design-Builder shall ensure continuity of all existing Utility services to all users, except when a Utility Owner determines that temporary interruption is necessary and acceptable.

The Design-Builder shall not move or remove any Utility without the written consent of the Utility Owner, unless otherwise directed by WSDOT.

The Design-Builder shall comply with all Applicable Laws relating to grading or excavation in the vicinity of underground Utilities. Before starting construction that may affect Utilities in a particular area (whether underground or overhead), the Design-Builder shall notify the affected Utility Owners in writing at least 30 Calendar Days prior to commencement of the Work. The Design-Builder shall contact the One-Call Locate Center (<http://wa.itic.occinc.com>) and locate Utilities prior to performing any excavation. The Design-Builder shall maintain all appropriate clearances from active power lines in accordance with WAC 296-155-428.

If any Utilities are damaged by the Design-Builder's activities, the Design-Builder shall immediately notify the affected Utility Owner, the One-Call Locate Center, and WSDOT. The Design-Builder shall pay for all costs associated with damage caused by the Design-Builder including Utility down-time, all reconstruction, all remediation of hazards, litigation, loss of product, and Utility start-up and delay costs. At the Utility Owner's request, the Design-Builder shall repair the damage or the Utility Owner may choose to repair the damage at the Design-Builder's expense. All repairs by the Design-Builder shall be performed to the reasonable satisfaction of the Utility Owner. The Design-Builder shall pay any reimbursement due to the Utility Owner because of any damage caused by the Design-Builder within 30 Calendar Days after receipt of the Utility Owner's invoice, unless otherwise provided in an applicable Relocation Agreement.

2.10.4.3 GOVERNMENT APPROVALS AND OTHER PERMITS

The Design-Builder shall obtain or ensure that the Utility Owner obtains all Governmental Approvals and any other clearances, permits, approvals, and agreements necessary for a Relocation; and shall verify that the same have been obtained prior to commencing or permitting the commencement of any construction. The Design-Builder shall verify that the Work performed (whether by the Design-Builder or by or on behalf of the Utility Owner) complies with the requirements of such Governmental Approvals and other clearances, permits, approvals, and agreements.

Comment [jlb19]: May 11, 2015 1:32 PM Marek Bednarczyk says:
2.10.4.1.2 Lines 4-7 WSDOT needs to enforce payment from UO to the DB

Comment [jlb20]: May 21, 2015 1:21 PM Paul Mayo says:
State law prohibits WSDOT for paying for Cat 1 utilities

Comment [jlb21]: May 26, 2015 5:08 PM John Collins says:
The only hammer WSDOT has is defined in the terms of the franchise or permit granted to the utility - it can be revoked (or if issuance is pending, withheld). I know of no utility that wishes to lose rights to place their facilities on WSDOT right-of-way; most maintain a good relationship with the State. Most of the time, if they haven't paid the Design-Builder, they just need a little reminder of the terms of the franchise or permit.

No Change in Language

Comment [jlb22]: May 21, 2015 1:23 PM Paul Mayo says:
This conflicts with DBer's rights via assigned franchise agreements and permits which allow DBer to move a Cat 1 utility and backcharge the owner if they fail to move their facility within 30 days.

Comment [jlb23]: May 26, 2015 5:12 PM John Collins says:
In the case of a recalcitrant utility owner, WSDOT would most likely otherwise direct the Design-Builder to proceed with the relocation or removal of a utility that threatens project delay. Since the original franchise or permit is between the State a...

Comment [jlb24]: May 21, 2015 1:25 PM Paul Mayo says:
separate topic, but WSDOT's refusal to locate drainage facilities per the new 2013 law has been an issue.....whole other meeting....

Comment [jlb25]: May 21, 2015 1:27 PM Paul Mayo says:
unless the utility owner failed to comply with the dig law
OK with this change

Comment [jlb26]: May 15, 2015 8:53 AM Ahmer Nizam says:
2.10.4.3 - This section is limited to Governmental Permits. Should this include licenses for occupancy across railroad right of way as well?

Comment [jlb27]: May 21, 2015 2:02 PM Paul Mayo says:
railroad relations are covered in section 2.23

No change

Comment [jlb28]: May 11, 2015 1:29 PM Marek Bednarczyk says:
2.10.4.3 Lines 36-42 Why does the DB need to verify that Utility Owners have the appropriate permits if they are doing relocations on their own?

Comment [jlb29]: May 21, 2015 2:03 PM Paul Mayo says:
Concur--DBer has no authority or ability to ensure this.

2.10.4.4 ACCESS TO EXISTING UTILITIES

Any authorized agent of WSDOT, a Utility Owner, or a Utility Owner's representative may enter the Right-of-Way to inspect, repair, maintain, rearrange, alter, or connect Utility facilities and equipment. The Design-Builder shall cooperate with such efforts and shall avoid creating delays or hindrances to the performance of such Work. If the Design-Builder determines, or a Utility Owner requests, that a Utility Owner must be on-Site to protect its facility, the Design-Builder shall provide at least seven Calendar Days advance notice to the Utility Owner.

2.10.4.5 BMPs AND TEMPORARY EROSION AND SEDIMENTATION CONTROL

Regardless of who performs or pays for any Relocation Work, the Design-Builder shall ensure that appropriate best management practices and temporary erosion and sedimentation control measures are followed in the performance of Utility Work. Refer to Section 2.8 for best management practices and temporary erosion and sedimentation control requirements.

2.10.5 RELOCATION AGREEMENTS, FRANCHISES, AND PERMITS

2.10.5.1 RELOCATION AGREEMENTS

2.10.5.1.1 Requirements

Each Relocation that is not subject to a Prior Relocation Agreement or an Intergovernmental Agreement shall be addressed in a Relocation Agreement entered into between the Design-Builder and the Private Utility Owner as required by Section 1-07.17 of the General Provisions. The Design-Builder shall prepare and negotiate each Relocation Agreement including such exhibits as may be appropriate, and shall prepare and provide all Project information (e.g., reports, plans, and surveys) necessary to negotiate the Relocation Agreement. For each Relocation, the Design-Builder shall initiate contact with the Private Utility Owner at the earliest possible time in order to begin working with the Utility Owner to develop a Relocation Agreement and a Relocation Plan that meets the Project design and schedule.

The Design-Builder shall refer to Chapter 2 of the *WSDOT Utilities Manual* for guidance in preparing Relocation Agreements. The Relocation Agreements shall be consistent with the applicable franchise/permit and Governmental Rules. At a minimum, each Relocation Agreement shall set forth the specific details of the Work, which typically include the following:

- The nature and location of the Utilities to be Relocated;
- Allocation of responsibility for design, construction, and other Relocation tasks;
- Applicable standards;
- Cost responsibility, cost estimates, and eligibility of costs for reimbursement, if applicable;
- Reimbursement procedures, if applicable;
- Schedules;
- Joint use issue resolution; and

Comment [jlb30]: May 5, 2015 8:50 AM Phil Larson says:
2.10.4.4 2.10-4 6-7 What if the owner does not come on site to protect the facility?

Comment [jlb31]: May 21, 2015 2:05 PM Paul Mayo says:
believe this would fall under 1-07-17 book 1 provisions for "uncooperative utilities"

No Change in Language

Comment [jlb32]: May 21, 2015 2:07 PM Paul Mayo says:
DBer does not have right to direct utility work performed by others, particularly if it is off the project ROW.

See comment previous page- **Response – check the boundary of this requirement- Public utilities and off ROW relocations and provide guidance in the document.**

- Procedures for design review and approval including inspection of construction, acceptance of the Relocation Work, and such other provisions as may be appropriate or reasonably required by WSDOT.

Cost Responsibility for each Relocation shall be determined in accordance with Section 1-07.17 of the General Provisions, unless otherwise directed by WSDOT. Each Relocation Agreement shall designate WSDOT as a third-party beneficiary. Schedules for completion of the tasks specified in each Relocation Agreement shall conform to the Contract Schedule, which shall provide reasonable and adequate time for each task.

The Design-Builder shall provide WSDOT with the opportunity to participate in negotiations of Relocation Agreements in accordance with Section 1-07.17 of the General Provisions. The Design-Builder shall give WSDOT at least seven Calendar Days advance notice of negotiation sessions. The Design-Builder shall submit draft minutes of each negotiation session to WSDOT within seven Calendar Days after the session, and final minutes incorporating any WSDOT comments within seven Calendar Days after WSDOT provides its concurrence.

No material modifications to the Relocation Work or terms of a fully-executed Relocation Agreement shall be made without processing a revision to the Relocation Agreement using the procedures described above [for Relocation Agreements](#).

2.10.5.1.2 Process for WSDOT Review

2.10.5.1.2.1 Draft Relocation Agreement

The Design-Builder shall submit a draft of each Relocation Agreement and exhibits to WSDOT for Review and Comment. The submittal shall also include the most current copy of the sections of the Design Documents that identify the Utility facilities being affected by the Project. WSDOT will Review and Comment within 14 Calendar Days from receipt of the draft document. WSDOT's failure to respond within this time frame does not constitute an approval of the terms or form of the submittal. The Design-Builder shall incorporate-resolve all WSDOT comments into-on the Draft Relocation Agreement, and shall obtain WSDOT approval prior to submitting it to the Utility Owner. The Design-Builder shall deliver each Draft Relocation Agreement concurrently to WSDOT and the Utility.

2.10.5.1.2.2 Final Relocation Agreement

The Final Relocation Agreement shall be submitted to WSDOT for Review and Comment at least 20 Calendar Days prior to the date scheduled for its full execution. A Relocation Agreement shall be considered final and ready for execution when all of its provisions have been reviewed and approved by WSDOT through the review process described above.

2.10.5.2 NEW FRANCHISES AND PERMITS

A franchise or permit is required for the authorization of any Utility installation within the Right-of-Way where the Utility Owner has not established a property right. The Utility Owner shall prepare an application for a new franchise or permit simultaneously with preparation of the Relocation Agreement or design of modifications necessary for Protection in Place. The Design-Builder shall ensure that the Utility Owner submits an application for a new franchise or permit to WSDOT as far in advance of construction as possible, but not later than 30 Calendar Days prior to construction. The application and

Comment [Jlb33]: May 5, 2015 8:52 AM
2.10.5.1.1 2.10-5 line 8 Who defines "reasonable and adequate"?

Response- Can we clarify criteria?

Comment [Jlb34]: May 21, 2015 2:33 PM Paul Mayo says:
or procedures in 1-07.17?
or below?

Fix this – please see my language change – the previous paragraphs of this section reference procedures for Relocation Agreements – which is what I think this is referring to. Or change as you think appropriate.

Comment [Jlb35]: May 21, 2015 2:35 PM Paul Mayo says:
WSDOT does not approve much anyway. Suggest the review period be 7 days–this is critical up front work that relates to significant 3rd party schedule risk.

Comment [Jlb36]: May 21, 2015 2:41 PM Paul Mayo says:
the word all is troubling–kind of draconian position for an agreement WSDOT is not party to (other than as beneficiary). How about all reasonable comments.

Comment [Jlb37]: May 21, 2015 2:42 PM Paul Mayo says:
this is not done, nor should it be required. What risk is WSDOT trying to mitigate? Too much meddling and WSDOT could buy issues if the deal goes bad.

Response – Why is this required – Dbers say is not documented- consider changing to review and comment

Comment [ET38]: Meeting Response – can we reduce any of these times?

Comment [Jlb39]: May 21, 2015 2:43 PM Paul Mayo says:
Again suggest a shorter period 7-14 days too much time for a critical front end task

Relocation Agreement shall be revised as necessary to obtain a franchise or permit from WSDOT.

The Design-Builder shall ensure that a new franchise or permit is issued by WSDOT prior to beginning construction of any Relocation or Protection in Place. A new franchise or permit is not required for the deactivation or removal of an existing Utility from within the Right-of-Way. The Design-Builder shall notify WSDOT of any Deactivated Utility, noting the permit number and how it was deactivated. A list of existing Authorized Utilities is provided in the *Existing Utility Listing* (Appendix U).

2.10.5.3 ASSIGNMENT/DELEGATION OF UTILITY FRANCHISE/PERMIT RIGHTS AND OBLIGATIONS

For each Authorized Utility determined by the Design-Builder as requiring Relocation, the Design-Builder shall prepare an *Assignment/Delegation of Utility Franchise/Permit Rights and Obligations* (Appendix U). The Design-Builder shall submit the completed document to WSDOT for approval and execution. The Design-Builder may begin working with a Utility Owner prior to execution of the document by WSDOT, provided that the document shall be submitted to WSDOT no later than the Design-Builder's submittal of the first draft of a Relocation Agreement.

If the Design-Builder determines that it will be unable to successfully negotiate a reasonable Relocation Agreement with the Private Utility Owner for a particular Authorized Utility, the Design-Builder shall notify the Utility Owner and WSDOT of such determination. The Design-Builder may, in addition to requesting assistance from WSDOT in accordance with Section 1-07.17 of the General Provisions, exercise the rights that have been assigned to it pursuant to the applicable assignment/delegation document, provided, however, that WSDOT makes no representation or warranty as to the Design-Builder's ability under the assignment/delegation document to enforce those rights in a manner that satisfies the Design-Builder's Project requirements, or at all.

2.10.6 IDENTIFICATION OF UTILITIES

2.10.6.1 INFORMATION SUPPLIED BY WSDOT

As specified in Section 1-07.17 of the General Provisions, WSDOT performed certain investigations of existing Utilities located within the Right-of-Way. These investigations were preliminary, and their results may be inaccurate or incomplete. The Utility Information is provided in this Section and Appendix U. The Design-Builder is advised of the following:

- WSDOT's investigations may have included making requests for "as-builts" from Utility Owners listed in the WSDOT database as having Utilities located within the Right-of-Way; visually locating above-ground Utility objects, including, but not limited to, poles, cabinets, vents, visible manholes, valve boxes, and vault covers; and surveying above ground objects.
- WSDOT has not identified Service Lines for the Project.
- The information shall not be utilized for determining Utility locations.

Refer to Section 1-07.17 of the General Provisions for the limited circumstances in which the Design-Builder may be entitled to an extension of the Contract Time or an increase in the Contract Price because of delays or increased costs of the Work that are directly attributable to the correction of inaccurate Utility Information. Unless specified otherwise,

Comment [Jlb40]: May 21, 2015 2:48 PM Paul Mayo says:
this is WSDOT's risk to manage--suggest "WSDOT will provide a new permit/franchise within 30 days of application receipt"

Comment [Jlb41]: May 15, 2015 9:00 AM Ahmer Nizam says:
2.10.5.2 Page 6 lines 5 and 6: Deactivation of a utility would require approval of the Region Utility Engineer ... also a new franchise or permit is not required PROVIDED that the facility has an active franchise or permit to begin with.

Comment [Jlb42]: This term needs to be added as a defined term in Chapter 1. Verify that it becomes a defined term and if not, "Deactivated" should be changed to be lowercase. (each occurrence)

Deactivated Utility – A utility facility no longer being used by the Utility Owner. The Utility Owner continues to maintain ownership and responsibility for the facility's future disposition.

Response - Add to Chapter 1- Teresa

Comment [Jlb43]: May 26, 2015 5:50 PM John Collins says:
The term, "Deactivated Utility," is defined in the Utility Manual which is one of the reference documents in the RFP. It might be helpful to include

Comment [Jlb44]: This defined term needs to be revised in Chapter 1. "Franchise/Permit Utility" should be revised to "Authorized Utility" within Section 1-01.3 of the General Provisions. Verify

Comment [Jlb45]: May 15, 2015 9:03 AM Ahmer Nizam says:
2.10.5.3 Line 14. By "working with", I assume this means beginning to coordinate with the utility and

Comment [Jlb46]: May 21, 2015 2:50 PM Paul Mayo says:
cannot do relocation work without a Relo Agreement

Comment [Jlb47]: May 5, 2015 8:54 AM Phil Larson says:
2.10.5.3 2.10-6 24-26 WSDOT gives the D-Ber rights which can not be enforced by WSDOT?

Comment [Jlb48]: May 7, 2015 9:46 AM Frank Young says:
Agree with Phil, WSDOT needs to be prepared to standup and enforce their authority over the utility

Comment [Jlb49]: May 21, 2015 2:51 PM Paul Mayo says:
Agree

Comment [Jlb50]: This Section summarizes information (and is somewhat duplicative) of language contained in 1-07.17(8). We should try to avoid duplicate information.

Comment [Jlb51]: May 15, 2015 9:04 AM Ahmer Nizam says:

Comment [Jlb52]: May 21, 2015 2:54 PM Paul Mayo says:
AGC would strongly object to this language. The owner is in the best position to manage existing

the Design-Builder's reliance on any Utility Information is at the Design-Builder's sole risk.

2.10.6.2 UTILITY EASEMENTS

All Utility Easements (existing and proposed) within the Project limits shall be identified or described by the Design-Builder in the Final Design Documents. All new Utility Easements within the Right-of-Way are subject to Review and Comment by WSDOT.

2.10.6.2.1 Project Utility Easements

WSDOT investigations have identified two Utilities that have easement rights within the Project limits. These Utilities are identified in the *Existing Utility Listing* (Appendix U).

2.10.6.2.2 New Utility Easements

The Design-Builder is advised that WSDOT does not obtain easements for Utilities outside of the Right-of-Way. Utility Owners are entitled to reimbursement of their costs for acquiring such easements only if WSDOT determines that they held a pre-existing property right entitling them to such reimbursement.

2.10.6.3 DESIGN-BUILDER'S INVESTIGATIONS

The Design-Builder shall be solely responsible for verifying, at its expense, the exact horizontal and vertical location, size, type, and all other relevant characteristics of all Utilities potentially impacted by the Project (including any Utilities located outside of the Right-of-Way), whether or not such Utilities are shown in the *Existing Utility Listing* (Appendix U). Such actions shall include making diligent inquiry at the offices of the Utility Owners, consulting public records, and conducting field studies. The Design-Builder shall consider the possibility that the *Existing Utility Listing* (Appendix U) and the information provided by Utility Owners may be inaccurate or incomplete. The Design-Builder shall request Utility locates during the design phase. Prior to submitting plans for Review and Comment, the Design-Builder shall identify Utilities that conflict with new roadway elements and roadside features shown in the plans.

Refer to Section 1-07.17 of the General Provisions for the Design-Builder's obligations upon determining that a Major Underground Utility was not identified in the *Existing Utility Listing* (Appendix U) with Reasonable Accuracy, or when identifying any other Utilities not described in the *Existing Utility Listing* (Appendix U).

2.10.6.4 UTILITY MANAGEMENT PLAN

The Design-Builder shall maintain a Utility Management Plan in tabular form, in both electronic and hard copy formats, which shall list each existing and proposed Utility located within the Right-of-Way or otherwise potentially impacted by the Project. At a minimum, the Utility Management Plan shall include the following information for each listed Utility:

- The name of the Utility Owner;
- A brief description of the Utility by size and type;
- The location of the Utility;
- The proposed disposition (e.g., Relocation, Protection in Place) for the Utility;

Comment [Jlb53]: May 21, 2015 2:57 PM Paul Mayo says:
this should be a toggle if applicable

Comment [ET54]: Use if applicable – otherwise delete and replace with "This section is intentionally omitted."

Comment [Jlb55]: May 21, 2015 2:59 PM Paul Mayo says:
cost and delay associated with identifying/characterizing utilities not on the U Matrix or M1 plans should be 1-04.4 compensable.

John and Ahmer - Would WSDOT be willing to change this requirement?

- The determination as to whether the Utility is a Category #1 Utility, a Category #2 Utility, or a Public Utility, based on information provided by WSDOT;
 - The nature of the Utility Owner's right of occupancy of the Right-of-Way for such Utility (e.g., franchise, permit, easement), based upon information provided by WSDOT and the Utility;
 - The status of the Relocation Agreement;
 - The status of Utility design and construction activities; and
 - Additional information as requested by WSDOT.
- The Design-Builder shall update the Utility Management Plan to reflect revisions to Utility Information and status as new information is received.

2.10.7 SCHEDULING, COORDINATION, AND CORRESPONDENCE

2.10.7.1 SCHEDULING

The Contract Schedule shall identify all Utility Work and allow sufficient time for completion of all such Work.

2.10.7.2 COORDINATION RESPONSIBILITIES

The Design-Builder shall be responsible for coordination with all Utility Owners with Utilities located within the Project limits. Such responsibilities shall include obtaining information from and providing information to the Utility Owners; notifying Utility Owners that Utilities affected will require Relocation; coordination and scheduling of design review, inspections, approvals, and acceptances; and coordination and scheduling of construction Work. The Design-Builder is responsible for monitoring the progress of Work by Utility Owners, and for resolving any scheduling difficulties with them.

The Design-Builder shall keep Utility Owners informed of the Design-Builder's construction schedules, and of changes which affect their Utilities. The Design-Builder shall also provide Utility Owners with sufficient time to notify their customers of any potential impacts to service.

The Design-Builder shall cooperate with the Utility Owners to the extent that such cooperation is consistent with the Design-Builder's obligations pursuant to the Contract and the scope of Work. The Design-Builder shall act diligently in maintaining a positive relationship with the Utility Owners.

2.10.7.3 NOTICES AND CORRESPONDENCE BETWEEN THE DESIGN-BUILDER AND UTILITY OWNERS

All notices to Utility Owners from the Design-Builder shall be in writing. The Design-Builder shall deliver to WSDOT copies of all correspondence between the Design-Builder and the Utility Owner within seven Calendar Days of receipt or sending.

2.10.7.4 MEETINGS WITH UTILITY OWNERS

The Design-Builder shall implement a schedule of periodic coordination meetings with each Utility Owner affected by the Work. Such meetings shall commence as early as possible in the Project design process and shall continue until Completion of the Project (or Completion of the Utility Owner's Relocations, if earlier). Such meetings shall include a

Comment [j1b56]: May 11, 2015 1:33 PM
Marek Bednarczyk says:
2.10.7.2 Lines 24-26 Can we define "sufficient time" or perhaps change the wording.

preliminary design meeting for the Design-Builder and Utility Owners affected to meet and familiarize themselves with design elements, Utility facilities, and general features of the Project. Thereafter, the frequency of meetings between the Design-Builder and each Utility Owner affected shall be appropriate to the matters under discussion. The Design-Builder shall notify WSDOT at least seven Calendar Days in advance of each meeting, and shall allow WSDOT the opportunity to participate in each meeting.

2.10.7.5 MEETINGS BETWEEN WSDOT AND THE DESIGN-BUILDER

Both WSDOT and Design-Builder representatives shall be available to meet at the request of either party to discuss and resolve matters relating to Utility Work. The Design-Builder shall schedule such meetings at the reasonable convenience of WSDOT's representatives.

2.10.7.6 MEETING MINUTES

The Design-Builder shall record and maintain minutes of all meetings with Utility Owners and with WSDOT with respect to Relocation and Utility Work. The Design-Builder shall deliver copies of these meeting minutes to the meeting attendees and make them available to WSDOT within seven Calendar Days after each meeting.

2.10.7.7 CONTACT INFORMATION

Utility Owners with Utilities potentially affected by the Project are listed in the *Utility Owner Contact List* (Appendix U). The information provided for those Utility Owners includes contact names and mailing addresses. The contact information is current as of the date of issuance of this RFP. The Design-Builder shall be responsible for verifying the accuracy of the contact information and maintaining current contacts for all Utilities affected by the Project, whether or not such Utility Owners are listed in the *Utility Owner Contact List* (Appendix U).

2.10.8 DESIGN REQUIREMENTS

2.10.8.1 GENERAL DESIGN CRITERIA

The Design-Builder shall be responsible for verifying that all design plans for Relocation Work, whether furnished by the Design-Builder or by the Utility Owner, are consistent and compatible with the following:

- The requirements specified in this Section;
- The requirements of the applicable Relocation Agreements and Intergovernmental Agreements;
- The Design-Builder's design and construction of the Project;
- WSDOT Bridge Office Load Rating for new utility attachments to existing bridges (refer to the *WSDOT Bridge Design Manual*);
- Any other Utilities being installed in the same vicinity;
- Other WSDOT and Local Agency projects; and
- The terms and conditions of all applicable new or amended franchises and permits.

The Design-Builder shall confirm that all Relocations to be installed within a limited access Right-of-Way meet WSDOT's requirements as set forth in the *Policy on Accommodation of Utilities on Highway Rights of Way* (chapter 468-34 WAC).

Comment [j1b57]: May 21, 2015 3:06 PM Paul Mayo says:
that are provided by WSDOT in the RFP

2.10.8.2 RELOCATION DESIGN FURNISHED BY THE DESIGN-BUILDER

Where the Design-Builder and the Utility Owner have agreed that the Design-Builder shall furnish the Relocation design, the Design-Builder shall submit its design to WSDOT and the Utility Owner for Review and Comment. The Design-Builder shall coordinate any necessary modifications and re-submittals with WSDOT and the Utility Owner, and obtain written approval from the Utility Owner prior to commencing construction of the Relocation. All subsequent changes to Relocation designs shall be subject to the same Review and Comment, and written approval process.

The Design-Builder is advised that Category #2 Utility Owners are generally entitled to reimbursement of their design review costs as Relocation Costs.

2.10.8.3 RELOCATION DESIGN FURNISHED BY THE UTILITY OWNER

The Design-Builder shall coordinate the delivery of each Relocation design to be furnished by the Utility Owner pursuant to the applicable Relocation Agreement. The Design-Builder shall review each design for compliance with the specifications, and shall provide comments to the Utility Owner. The Design-Builder shall submit the Relocation design to WSDOT for Review and Comment; transmit WSDOT comments to the Utility Owner; and coordinate modification and re-submittal as necessary.

2.10.9 CONSTRUCTION REQUIREMENTS

2.10.9.1 GENERAL CONSTRUCTION CRITERIA

The Design-Builder shall be responsible for verifying that all construction of Relocation Work, whether performed by the Design-Builder or by the Utility Owner, complies with the following:

- The requirements specified in this Section;
- The requirements of the applicable Relocation Agreements;
- The Released for Construction Documents;
- The Design-Builder's design and construction of the Project;
- Any other Utilities being installed in the same vicinity; and
- The terms and conditions of all applicable new or amended franchises and permits.

The Design-Builder shall cooperate with the Utility Owner to obtain all necessary permits, and assure that Utility Owners meet all Project safety and environmental requirements.

2.10.9.2 SPECIAL QUALIFICATIONS

For each Relocation for which the Design-Builder is assigned responsibility for construction as specified in this Section and in Section 1-07.17 of the General Provisions, and for which special qualifications are required by the Utility Owner to perform such construction, the Design-Builder shall utilize (or cause its subcontractors to utilize) qualified personnel acceptable to the Utility Owner to perform such Relocation Work.

2.10.9.3 INSPECTION

The Design-Builder shall perform all inspection, sampling, and testing of the Utility Owner's and the Design-Builder's Relocation Work necessary to comply with its

Comment [Jlb58]: May 5, 2015 9:01 AM Phil Larson says:

2.10.9.1 General comment How should we deal with conflicts between the Utility Owner's specifications or codes and WSDOT's?

Comment [Jlb59]: May 26, 2015 6:06 PM John Collins says:

These conflicts should be resolved by adhering to the hierarchy of mandatory standards in Section 2.10.2.

Comment [Jlb60]: May 21, 2015 3:19 PM Paul Mayo says:

should be permits/franchises provided in RFP. how can a DBer bid provisions that do not yet exist?

Comment [Jlb61]: May 26, 2015 6:09 PM John Collins says:

The Design-Builder would be determining many of the new conditions for new/amended franchises and permits. For example, if the project requires attachment of a utility to a bridge where it was underground to begin with, the Design-Builder would be responsible for the new or amended condition.

Response – Talk with John about clarifying the language and intent

obligations under the Contract, Relocation Agreements, and the Quality Management Plan. The Design-Builder shall immediately notify WSDOT and the Utility Owners regarding any noncompliance.

Each Utility Owner shall have the right to inspect construction performed on its Utilities by the Design-Builder. The Design-Builder shall not refuse the inspection requests, and shall coordinate a mutually agreeable schedule and scope with the Utility Owner for the inspections. The Design-Builder shall inform the Utility Owner in writing, prior to commencing any Work, so that the Utility Owner may report such deficiencies to the Design-Builder's Construction Quality Assurance Manager for resolution.

Promptly upon completion of the Work, the Design-Builder shall obtain the Utility Owner's written acceptance of each Utility on which the Design-Builder performed the Relocation Work. The Design-Builder shall submit the original document of each written acceptance to WSDOT.

2.10.9.4 DEACTIVATION AND REMOVAL

The Design-Builder shall remove any permanently Deactivated Utility facility from the Right-of-Way unless WSDOT approves deactivation of the facility in place. Deactivation in place shall mean allowing elements of the Deactivated Utility facility to remain in the Right-of-Way following flushing, capping, grouting, and other Work required to meet Utility Standards and Applicable Law (whichever is more stringent).

The Design-Builder shall be responsible for all Work associated with the removal and disposal of permanently Deactivated Utility facilities. If WSDOT approves deactivation in place of a Utility, the Design-Builder shall make all arrangements and perform all Work necessary for any proposed deactivation including design, construction, and consent from Utility Owners and landowners. The Design-Builder shall also obtain any necessary Governmental Approvals, WSDOT approvals, and permits, or the Design-Builder shall confirm that the Utility Owner has performed the same.

The Design-Builder is advised that certain Utilities may be composed of asbestos-coated pipe. The Design-Builder shall design the Project to avoid affecting asbestos-coated pipe where feasible, and shall take all other appropriate action to minimize conflicts with such Utility facilities. Any removal of such pipe shall be performed in compliance with all applicable Governmental Rules and Environmental Laws.

Any Utility deactivated outside of the Right-of-Way shall be deactivated in accordance with the Utility Owner's Utility Standards and the standards of the Local Agency with jurisdiction over the affected Utilities.

The Design-Builder shall notify WSDOT in writing of any Utilities that will be deactivated or removed.

2.10.9.5 PROTECTION IN PLACE

The Design-Builder shall be responsible for Protecting in Place (or causing to be Protected in Place by the Utility Owners) all Utilities impacted by the Project (including any Utilities remaining in place, any Utilities installed during the course of the Work, and any Prior Relocations), to ensure their continued safe operation and structural integrity in accordance with the requirements of this Section. Utilities to be Protected in Place shall not be relocated or taken out of service. WSDOT's prior written approval shall be required for all Utilities proposed to remain in their existing locations other than Prior Relocations.

Comment [j1b62]: May 21, 2015 3:22 PM Paul Mayo says:
not defined

Add definition to Chapter 1

Comment [j1b63]: May 26, 2015 6:10 PM John Collins says:
Defined in the reference document, Utility Manual.

Comment [j1b64]: May 5, 2015 10:01 AM Jami Boutwell says:
Page 2.10-11, lines 43-44. Do we really mean to require prior written approval for all utilities proposed to remain in place?

Comment [j1b65]: May 21, 2015 3:27 PM Paul Mayo says:
This does not make sense through the design process/utility management matrix anything not Prior Relocated, Relocated or PIP, get to stay where it is why the need for separate written approval?--

Comment [j1b66]: May 26, 2015 6:12 PM John Collins says:
Wouldn't approval of RFC drawings satisfy the requirement?

Response – John/Ahmer – revise language to clarify

Protection in Place may be permanent or temporary, depending upon the types of measures that are necessary to satisfy the specific requirements of a particular Utility. The Design-Builder shall coordinate with the Utility Owner to determine whether to provide either permanent or temporary Protection in Place.

If the Design-Builder incurs a cost to implement a design to avoid or to provide permanent protection of a Category #1 Utility, the cost associated with such modification shall be recovered directly from the Private Utility Owner. The cost for such modifications shall not be included in the lump sum bid cost for the Contract or as a basis for any change order.

2.10.9.5.1 Fire Protection

The Design-Builder shall replace all fire hydrants that are impacted by construction of the Project.

2.10.9.6 PRIOR RELOCATIONS

Prior Relocations shall not be relocated again during the Contract. Following the initial Relocation by the Utility Owner, the Design-Builder shall design the Work so that these Utilities are not in conflict with the Work.

2.10.9.7 MAINTENANCE OF SERVICE

All Utilities shall remain operational during all phases of construction, except as specifically allowed and approved in writing by the Utility Owner. The Design-Builder shall obtain the Utility Owner's approval in writing prior to any temporary diversion or interruption of service of affected Utility facilities.

2.10.9.8 MAINTENANCE OF TRAFFIC

The Design-Builder shall be responsible for all traffic control to ensure safe and efficient traffic flow during the Utility Work. Refer to Section 2.22 for Maintenance of Traffic requirements.

2.10.9.9 STREET RESTORATION

The Design-Builder shall ensure that resurfacing, restoration, and re-striping of all streets, roadside features, or other affected areas are constructed in compliance with the standards of the Local Agency with jurisdiction over the affected facilities. Refer to Sections 2.7 and 2.20.

2.10.9.10 ENVIRONMENTAL COMPLIANCE PERTAINING TO UTILITY WORK

The Design-Builder shall comply with all applicable Environmental Laws in performance of Utility Work. Refer to Section 2.8 for environmental requirements.

2.10.9.11 MAINTENANCE OF RECORDS

2.10.9.11.1 Construction and Inspection Records

The Design-Builder shall maintain construction and inspection records in order to ascertain that the Work proposed in a Relocation Agreement is accomplished in accordance with the approved plans and the requirements of the Contract.

Comment [Jlb67]: May 21, 2015 3:29 PM Paul Mayo says:
why not also from Cat 1 Public Owners...

Comment [Jlb68]: May 26, 2015 6:14 PM John Collins says:
The definition of Public Utilities precludes them from being Category 1 or Category 2 Utilities. They are separated out by definition in order that any costs associated with relocation, removal, or protection in place are included in the Proposal.

Response – check language- check with Dan Galvin who's cost responsible for Public Utilities

Comment [Jlb69]: May 7, 2015 10:29 AM Frank Young says:
2.10.9.5 Protection in Place WSDOT should add language that provides some sort of backstop to the DBer should the Utility Company not want to reimburse the DB for cost associated with the protection of the utility. Should the DBer not be able to get reimbursement timely from the Utility Company, WSDOT should 'collect' all cost born by the DBer and reimburse the DB.

Comment [Jlb70]: May 21, 2015 3:29 PM Paul Mayo says:
if a Cat 1 utility does not want to pay for a PIP-- DBer gets to use assigned rights to make them relocate.

Response – No Change – this is covered under franchise agreement

Comment [Jlb71]: Review chapter 1 definition for Prior Relocations, it may need some clarification as to what constitutes the difference between a Prior Relocation and an existing Utility. Is there a date that defines the boundary?

Comment [Jlb72]: May 26, 2015 6:18 PM John Collins says:
Prior relocations are performed by those utilities where a conflict was determined between their facilities and the conceptual plan and where the utility opted to relocate ahead of the advertisement of the RFP or acceptance of the Proposal. WSDOT's agreement to these utilities is that they would not be required to bear the costs of an additional relocation during construction.

Response – verify that this is defined properly Teresa and Jami

2.10.9.11.2 Utility As-Built Plans

Upon Physical Completion of the Project (or upon completion of the Utility Relocations, if earlier), the Design-Builder shall deliver to WSDOT a complete set of Utility As-Built Plans and design files that incorporate all changes and details of the Relocation Work. As-Built Plans shall show the location of all Utilities located within the Right-of-Way and Utilities located outside of the Right-of-Way that were part of the Relocation Work.

As-Built Plans shall be of a quality and format acceptable to WSDOT. Refer to Section 2.12 for final project documentation requirements.

End of Section

WSDOT/AGC/ACEC DESIGN-BUILD TEAM MEETING Meeting Minutes

July 9, 2015

1:00 pm to 4:00 pm

WSDOT Corson Ave Office, Conf. Rm. 119/201

6431 Corson Avenue South, Seattle, WA

No Teleconference line requested

Co-Chairs Scotty Ireland and Paul Mayo

AGENDA ITEMS:

1. Sign-In Sheet/Open the meeting / Introductions

Teresa / Paul/All

Attendees:

| Member | Organization | Phone | E-mail |
|------------------|-------------------|--------------|-----------------------------|
| Barry, Ed | WSDOT-HQ DN | 206-805-2924 | barryed@wsdot.wa.gov |
| Boutwell, Jami | WSDOT-NWR 405 | 425-456-8504 | boutwej@wsdot.wa.gov |
| Campbell, Dan | GeoEngineers | 425-861-6094 | dcampbell@geoengineers.com |
| Clarke, Brenden | WSDOT - OR | 360-357-2606 | clarkeb@wsdot.wa.gov |
| Crowe, Eric | AECOM | 425-208-9083 | Eric.crowe@aecom.com |
| Eckard, Teresa | WSDOT-HQ CN | 360-705-7908 | eckardt@wsdot.wa.gov |
| Harris, Jon | PCL | 425-394-4231 | jharris@pcl.com |
| Hodgson, Lisa | WSDOT-NWR 405 | 425-420-9984 | hodgsol@wsdot.wa.gov |
| Ireland, Scotty1 | WSDOT-HQ CN | 360-705-7468 | irelans@wsdot.wa.gov |
| Jepperson, Omar | WSDOT-NWR 405 | 425-456-8610 | jepperO@wsdot.wa.gov |
| Larson, Phil | Atkinson | 425-508-6718 | phil.larson@atkn.com |
| Mayo, Paul1 | Flatiron Corp | 425-508-7713 | pmayo@flatironcorp.com |
| Mizuhata, Julia | WSDOT-NWR 520 | 425-576-7059 | MizuhaJ@wsdot.wa.gov |
| Ostfeld, Eric | Parsons | 206-643-4269 | Eric.ostfeld@parsons.com |
| Pindras, Greg | Max J. Kuney | 509-535-0651 | gregp@maxkuney.com |
| Rohila, Manish | Rohila Consulting | 425-246-1749 | manish@rohilaconsulting.com |
| Guests | | | |
| Randy Mawdsley | WSDOT | 360-709-5497 | mawdsr@wsdot.wa.gov |
| Tak, Denys | WSDOT | Dialed-in | |
| Mason, Jeremy | Klindfelder | 425-417-5956 | jmason@kleinfelder.com |
| Williams, Chris | Flatiron | 720-244-0737 | cwilliams@flatironcorp.com |
| Jeff Lavinder | Parsons | Dialed-in | |

A. Safety Briefing

B. Review and Update Sign-In Sheet

Scotty gave a brief update of the evacuation of the bldg. during an emergency. Group introduced themselves for new attendees. Sign-in sheet was circulated.

Denys Tak dialed in

2. Review Previous Meeting Minutes

All

The May 28th DRAFT meeting minutes were distributed to the Team on 6/25/2015. After incorporating comments, they were finalized and posted to the website on 7/9/2015. Meeting minutes are located at:

<http://www.wsdot.wa.gov/Business/Construction/MeetingMinutes.htm>

3. Old Business

A. 2015 Topic/Meeting Date document was finalized and posted on the TheHub on 7/7/2015.

Scotty/Paul/Richard

Scotty briefly talked about the document and it's posting on TheHub

B. Chapter 2 Section 2.13, 2.6, 2.10, 2.22 draft template update

Scotty/All

Scotty briefly described the status sheet showing the status of the sections reviewed by this committee.

Bold text is actual; non-bold is projected on the status document.

C. Design-Build Discussion Topics

1. 2nd Draft DB- DBE language Comment discussions

Teresa/Denys/All

Comments were discussed with resolutions per attached comments to language. Teresa is going to follow up with Julia M. on comment 2 in 2nd Draft Chapter 1 DBE Language.

4. New Business

A. Chapter 2 Technical Review Comments

1. Section 2.28 Quality Management

Teresa/All

Randy Mawdsley and Jeremy Mason led the discussion of sections 2.28.3.2 and 2.28.5.10. See attached Section 2.28 with review comments and meeting responses. Teresa will schedule a follow-up SME session to finalized responses to the comments on TheHub, and consider some additional comments and suggested changes from Jeremy for inclusion in the document.

2. Section 2.12 Project Documentation

Teresa/All

Ed Barry, Chris Williams and Jeff Lavinder (Dialed-in) led the discussion of Comments 24/25/26, 21, 13 and 12. See attached Section 2.12 with review comments and meeting responses. Teresa will schedule a follow-up SME session to finalized responses to the review comments.

B. Project Delivery Method Selection Guidance Comment Discussion

Teresa/All

There were no comments on TheHub.

Omar J. asked if we will we go back and reevaluate projects that are already underway? We thought that 30% design, based on the current guidance, would be the logical cutoff point but that the implementation of the PDMSG had not yet been planned. Policy and guidance from Executive may be different.

There will need to be coordination with practical design. For now the guidance will be stand alone. It will be revised and incorporated as a chapter in the revised Design Manual (that is incorporating practical design).

The Beta Test meeting of the PDMSG occurred on July 2nd and provided extensive input on improvements and what works with the draft PDMSG. This is expected to be incorporated and a new draft posted for review in mid-August on TheHub.

5. Legislative Update and Upcoming WSDOT Design-Build Projects

Scotty/Paul

Scotty provided a briefing of proposed legislation 2ESSB 5997. In summary, the legislation would: 1) reduce the minimum DB project value from \$10M to \$2M; 2) strongly encourage WSDOT to use DB for public works projects over \$2 M; 3) require the Joint Transportation Committee to convene an expert panel to perform a study of WSDOT's implementation of DB contracting with the report being provided to the Legislature and Governor by Dec.1, 2016; 4) require WSDOT to develop a construction program business plan based on the design-build study.

Regarding upcoming WSDOT design-build opportunities, Scotty noted that based on WSDOT's current project delivery method selection policy, only two regions indicated that they would be pursuing design-build projects within the 2015 calendar year. Olympic Region intends to deliver the SR 16/I-5 HOV Direct Connect Ramps with DB, and the Northwest Region intends to deliver the I-405/SR 167 HOV Direct Connect Ramps with DB delivery. Other regions are evaluating proposed projects for DB delivery, but do not anticipate any within the year. Scotty noted that the number of DB projects in the future will depend on WSDOT's planned implementation of the Project Delivery Method Selection Guidance in the future.

6. Future Meeting Highlights

- A. A pre-qualification list for DB teams on Small Projects

Eric Ostfeld

- B. Upset Price and Best Value

Eric Crowe

7. Review and Expand Action Items

All

| Subject | Item Description | Due Date | Responsible | Status | Completion Date |
|-----------------------|---|-----------|---------------------|---|-----------------|
| PDMSG | WSDOT/AGC/ACEC to provide SME's for review of the PDMSG | 7/22/2015 | Teresa/Paul/Richard | In progress | |
| Upcoming Items | Add discussion of Co-located office security for DB projects on the next agenda | 7/30/2015 | Teresa | Will be added to draft agenda for 9/10/2015 meeting | |

8. Future Meetings:

All

Location: We will be meeting at the Corson Ave Project Office, **Conference Room 119/121**

The address is:

6431 Corson Avenue South
Seattle, WA 98108

Future meeting dates:

September 10, 2015 - **Conference Room 119/121**

October 22, 2015 - **Conference Room 119/121**

December 3, 2015 - **Conference Room 119/121**

Any planned changes to the programmed meeting dates will occur at least one week prior to the meeting.

Conference Call-In: Consistency in representation is important to the Team's success. If a member is not able to attend, a conference call line will be made available for the meeting if requested in advance.

WSDOT/AGC/ACEC Design-Build Committee 2015 Meeting Topic Schedule

| Meeting Dates for 2015 | RFP Chapter 2 Sections Topics | Subject Matter Experts / Discussion Lead | Design-Build Discussion Topics | Discussion Topic Lead | Notes/Comments |
|------------------------|--|--|---|--|--|
| March 5, 2015 | 1. 2.13 Bridges and Structures 2. DBB-DBE section Draft | 1. Rich Zeldenrust – WSDOT ACEC - Rich Patterson 2. D. Tak / S. Ireland | 3. DBE requirements and good faith effort in Design-Build 4. Meeting DBE Goal Requirements | 3. WSDOT - Denys Tak 4. WSDOT - Denys Tak | |
| April 16, 2015 | 1. 2.6 Geotechnical | 1. WSDOT - Jim Cuthbertson /Jim Struthers; ACEC – Dan Campbell AGC - Phil Larson | 2. Small DB Pilot Projects Report 3. Chapter 1 – DB DBE Section 1 st Draft | 2. WSDOT – Teresa Eckard 3. WSDOT – Denys Tak | |
| May 28, 2015 | 1. 2.22 Maintenance of Traffic (MOT) 2. 2.10 Utilities and Relocation Agreements and GT1-07(17) | 1. WSDOT - Bonnie Nau ACEC – Manish Rohila AGC - Mannie Barnes 2. WSDOT John, Collins, Pete Townsend and Ahmer Nizam ACEC –Eric Ostfeld AGC - Paul Mayo | 3. Project Delivery Method Selection Guidance (PDMSG)- Overview 4. DBE language - Response to Comments | 3. WSDOT – Teresa Eckard 4. Denys Tak | 1. Evaluate progress –Keeping July Meeting 2. Discuss WSDOT's new PDMSG implementation. |
| July 9, 2015 | 1. 2.12 Project Documentation 2. 2.28 Quality Management Plan (QMP) | 1. WSDOT – Ed Barry ACEC – Eric Ostfeld AGG - Chris Williams 2. WSDOT - Randy Mawdsley; ACEC – Eric Ostfeld AGC - Jeremy Mason | 3. Project Delivery Method Selection Guidance (PDMSG) 4. DB DBE Section 2 nd Draft | 3. WSDOT – Teresa Eckard 4. Denys Tak | 1. Chapter 2.28.4.4.4 a. Handoff of the RFC document b. Can WSDOT specify required QC staff on the project including duration and number? c. Does industry feel there would be a value in investigating the feasibility of alternative approaches for construction quality assurance for smaller projects |
| September 10, 2015 | 1. 2.18 Intelligent Transportation Systems 2. 2.29 Maintenance During Construction | 1. WSDOT - Greg Leege; ACEC – Bart Cima AGC - Mike Woeck 2. WSDOT - Mark Renshaw; ACEC – Manish Rohila AGC – Mannie Barnes | 3. A pre-qualification list for D-B teams on Small Projects | 3. ACEC - Eric Ostfeld | |
| October 22, 2015 | 1. 2.8 Environmental 2. 2.11 Roadway | 1. WSDOT – Eric Wolin ACEC – Dan Campbell AGC - Mike Shaw 2. WSDOT – Ed Barry ACEC – Eric Crowe AGC – Phil Larson | 3. The relationship between the upset price and best value on WSDOT project | | |
| December 3, 2015 | 1. 2016 Annual Goals and Topics | 1. WSDOT – Scotty Ireland ACEC – Richard Patterson AGC – Paul Mayo | 2. Update on where WSDOT is on P3's Lessons Learned from AGC, ACEC and WSDOT | 2. AGC – Frank Young | |

Draft WSDOT/AGC/ACEC Design-Build Committee 2015 Section Review Status

| RFP Chapter 2 Sections | Subject Matter Experts / Discussion Lead | Status of template revisions (Bold text has been completed, other text is future tasks and estimated dates) | Notes/Comments |
|---|---|---|----------------|
| 2.13 Bridges and Structures | WSDOT – Rich Zeldenrust ACEC - Rich Patterson | <ul style="list-style-type: none">• Review section prior to March 5• Comments discussed at March 5th meeting – not all comments discussed• Lync Meeting with Rich and HQ Construction (Mark Gaines) 5/14• Resolution of comments and incorporation of DB BDM in section by Rich and Mark - 6/26 conflicts with some changes• Mark Gaines/ Rich Lync meeting on final revisions (7/14)• Mark G/HQ Const OK of changes 7/21• Post final version (7/21)• Finalize changes after 8/5 | |
| 2.6 Geotechnical | WSDOT - Jim Cuthbertson /Jim Struthers; ACEC – Dan Campbell AGC - Phil Larson | <ul style="list-style-type: none">• Review section prior to April 16th• Comments discussed at April 16th meeting• SME resolution Lync meeting on 4/30• Revised section from Jim C.• HQ Construction Comments• Resolution of HQ Construction Comments Lync Meeting 6/2• Final Comments from Jim Cuthbertson 6/15• Revisions from TFE per Jim's notes• HQ Construction OK 7/6• Post final version (7/7)• Finalize changes after 7/21 | |
| 2.22 Maintenance of Traffic (MOT) | WSDOT - Bonnie Nau ACEC – Manish Rohila AGC - Mannie Barnes | <ul style="list-style-type: none">• Review section prior to May 28th• Comments discussed at May 28th meeting• Revised Redlines from Bonnie (7/14)• SME resolution Lync meeting on (7/21) (include HQ Const)• Revised section from Bonnie (7/30)• HQ Construction Comments (8/10)• HQ Construction OK (8/14)• Post final version (8/14)• Finalize changes after 8/28) | |
| 2.10 Utilities and Relocation Agreements and GT1-07(17) | WSDOT John, Collins, Pete Townsend and Ahmer Nizam ACEC –Eric Ostfeld AGC - Paul Mayo | <ul style="list-style-type: none">• Review section prior to May 28th• Comments discussed at May 28th meeting• Lync Meeting with John/Ahmed (7/8)• Revised Redlines from John/Ahmed (7/14)• SME resolution Lync meeting on (7/21) (include HQ Const)• Revised section from John/Ahmed (7/30)• HQ Construction Comments (8/10)• HQ Construction OK (8/14)• AG Office Review (8/30)• Post final version (8/31)• Finalize changes after 9/15) | |
| 2.12 Project Documentation | WSDOT – Ed Barry ACEC – Eric Ostfeld AGG - Chris Williams | <ul style="list-style-type: none">• Review section prior to July 9th• SME's Lync on July 6th• Comments discussed at July 9th meeting• Revised Redlines from WDOT SME's (7/23)• SME resolution Lync meeting on (7/29) (include HQ Const)• Revised section from WSDOT SME's (8/14)• HQ Design Final Comments (8/26)• HQ Design OK (9/3)• Post final version (9/8)• Finalize changes after 9/22 | |

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|---|--|--|--|
| 2.28 Quality Management Plan (QMP) | WSDOT - Randy Mawdsley; ACEC – Eric Ostfeld AGC - Jeremy Mason | <ul style="list-style-type: none">• Review section prior to July 9th• SME’s Lync on July 6th• Comments discussed at July 9th meeting• Revised Redlines from WDOT SME’s (7/23)• SME resolution Lync meeting on (7/29) (include HQ Const)• Revised section from WSDOT SME’s (8/14)• HQ Construction Comments (8/26)• HQ Construction OK (9/3)• Post final version (9/8) Finalize changes after 9/22 | |
| 2.18 Intelligent Transportation Systems | WSDOT - Greg Leege; ACEC – Bart Cima AGC – Mike Woeck | <ul style="list-style-type: none">• Review section prior to Sept 10th• SME’s Lync on Sept 2nd• Comments discussed at Sept 10th meeting• Revised Redlines from WDOT SME’s (9/23)• SME resolution Lync meeting on (9/29) (include HQ Const)• Revised section from WSDOT SME’s (9/14)• HQ Construction Comments (9/26)• HQ Construction OK (10/3)• Post final version (10/8) Finalize changes after 10/22 | |
| 2.29 Maintenance During Construction | WSDOT – Mark Renshaw; ACEC – Manish Rohila AGC – Mannie Barnes | <ul style="list-style-type: none">• Review section prior to Sept 10th• SME’s Lync on Sept 2nd• Comments discussed at Sept 10th meeting• Revised Redlines from WDOT SME’s (9/23)• SME resolution Lync meeting on (9/29) (include HQ Const)• Revised section from WSDOT SME’s (9/14)• HQ Construction Comments (9/26)• HQ Construction OK (10/3)• Post final version (10/8) Finalize changes after 10/22 | |
| 2.8 Environmental | WSDOT – Eric Wolin ACEC – Dan Campbell AGC - Mike Shaw | <ul style="list-style-type: none">• Review section prior to Oct 22nd• SME’s Lync on Oct 14th• Comments discussed at Oct 22nd meeting• Revised Redlines from WDOT SME’s (11/4)• SME resolution Lync meeting on (11/9) (include HQ Const)• Revised section from WSDOT SME’s (11/24)• HQ Construction Comments (12/8)• HQ Construction OK (12/15)• Post final version (12/15) Finalize changes after 12/30 | |
| 2.11 Roadway | WSDOT –Ed Barry ACEC – Eric Crowe AGC – Phil Larson | <ul style="list-style-type: none">• Review section prior to Oct 22nd• SME’s Lync on Oct 14th• Comments discussed at Oct 22nd meeting• Revised Redlines from WDOT SME’s (11/4)• SME resolution Lync meeting on (11/9) (include HQ Const)• Revised section from WSDOT SME’s (11/24)• HQ Construction Comments (12/8)• HQ Construction OK (12/15)• Post final version (12/15) Finalize changes after 12/30 | |

Revised DBE Language 46/625/2015

1-01.2(1) ASSOCIATIONS AND MISCELLANEOUS

1-01.3(1) DEFINED TERMS

DBE Abbreviations and Definitions

Broker – A business firm that provides a bona fide service, such as professional, technical, consultant or managerial services and assistance in the procurement of essential personnel, facilities, equipment, materials, or supplies required for the performance of the Contract; or, persons/companies who arrange or expedite transactions.

Substantially Completed Design Milestone – The milestone established in the RFP as “~~Completed Design~~” whereby ~~the substantial portion of the design of the project is complete and when all COA DBE subcontractors have been identified on the final DBE Utilization Form and it has been submitted to WSDOT, must be executed.~~

DBE – Disadvantaged Business Enterprise

DBE Performance Plan - The plan submitted by Design-Builder with its Proposal pursuant to the Instructions to Proposers.

DBE Progress Reports - The meaning set forth in Section 1-07.11(11).

Disadvantaged Business Enterprise (DBE) – A business firm certified by the Washington State Office of Minority and Women’s Business Enterprises, as meeting the criteria outlined in 49 CFR 26 regarding DBE certification.

Commercially Useful Function (CUF)

49 CFR 26.55(c)(1) defines commercially useful function as: “A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. To determine whether a DBE is performing a commercially useful function, you must evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors.” If a DBE does not perform all of these functions on a furnish-and-install contract, it has not performed a CUF and the cost of materials cannot be counted toward DBE COA Goal. Leasing of equipment from a leasing company is allowed. However, leasing/purchasing equipment from the Design-Builder is not allowed. Lease agreements shall be readily available for review by WSDOT.

DBE Commitment – The dollar amount the Design-Builder indicates they will be subcontracting to be applied towards the DBE Condition of Award Goal as shown in the DBE Performance Plan submitted with the Design-Builder’s Proposal. This DBE Commitment amount will be incorporated into the Contract and shall be considered a Contract requirement. Any changes to the DBE Commitment shall require WSDOT’s approval.

DBE Condition of Award (COA) Goal – An assigned numerical percentage of the proposal amount of the Contract. This is the minimum amount that the Bidder must commit to by submission of the DBE

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Performance Plan including Good Faith Effort ~~(GFE)~~. The DBE COA Goal will also be applied to change orders associated with this Contract.

DBE Directory of Certified Firms – A publication listing all Minority, Women, and Disadvantaged Business Enterprises currently certified by the Washington State Office of Minority and Women’s Business Enterprises (OMWBE). The on-line Directory is available to Design-Builders for their use in identifying and soliciting interest from DBE firms whose participation on a contract may be counted toward achievement of the assigned DBE COA Goal.

Description of Work – Specific descriptions of work that the DBE is certified to perform, as identified in the OMWBE Directory of Certified Firms, under the DBE’s profile page.

Good Faith Efforts – Efforts to achieve the DBE COA Goal or other requirements of this part which, by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the program requirement as described in 49 CFR Part 26 Appendix A and this RFP.

~~DBE Manufacturer (DBE)~~ – A DBE firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the Contract. A DBE Manufacturer shall produce finished goods or products from raw or unfinished material or purchase and substantially alters goods and materials to make them suitable for construction use before reselling them.

~~DBE Regular Dealer (DBE)~~ – A DBE firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials or supplies required for the performance of a Contract are bought, kept in stock, and regularly sold to the public in the usual course of business. To be a Regular Dealer, the DBE firm shall engage in, as its principal business and in its own name, the purchase and sale of the products in question. A Regular Dealer in such items as steel, cement, gravel, stone, and petroleum products need not keep such products in stock if it both owns or and operates distribution equipment. Brokers and packagers shall not be regarded as Regular Dealers within the meaning of this definition.

1-07.11(11) DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION

The Disadvantaged Business Enterprise (DBE) requirements of 49 CFR Part 26 apply to this Contract.

DBE Participating Goal

The WSDOT has established a DBE COA goal in the amount of: *****DBE%***.**

Comment [ET1]: Fill in DBE %

DBE Eligibility/Selection of DBEs

A Directory of Certified DBE Firms denoting the Description of Work the DBE Contractors are certified to perform is available at: www.omwbe.wa.gov/certification/index.shtml.

The directory provides plain language on the Description of Work that the listed DBE’s have been certified by the Office of Minority and Women’s Business Enterprises (OMWBE) to perform.

Crediting DBE Participation

Joint Venture

Revised DBE Language ~~46/625~~/2015

When a DBE performs as a participant in a joint venture, only that portion of the total dollar value of the Contract equal to the distinct, clearly defined portion of the Work that the DBE performs with its own forces shall be credited.

DBE Design-Builder

A DBE Design-Builder may only take credit for that portion of the total dollar value of the Contract equal to the distinct, clearly defined portion of the Work that the DBE ~~p~~Prime performs with its own forces.

DBE Subcontractor

When a DBE firm participates as a Subcontractor only that portion of the total dollar value of the Contract equal to the distinct, clearly defined portion of the Work that the DBE performs with its own forces shall be credited. Include the cost of supplies and materials obtained by the DBE for the Work in the Contract including supplies purchased and equipment leased by the DBE.

The Design-Builder may not take credit for supplies, materials, and equipment the DBE ~~s~~Subcontractor purchases or leases from the Design Builder or its affiliate, including any Design-Builder resources available to the DBE subcontractors at no cost.

Count the entire value of fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical, consultant, managerial services, or for providing bonds or insurance, as long as the fees or commission are determined to be reasonable and not excessive.

When a DBE subcontracts to another firm, the value of the subcontracted Work may be counted as participation only if the DBE's lower tier Subcontractor is also a DBE. Work that a DBE subcontracts to a non-DBE firm shall not be credited.

When non-DBE Subcontractor further subcontracts to a lower-tier Subcontractor or supplier who is a certified DBE, then that portion of the Work further subcontracted may be credited ~~as toward the DBE participation~~ COA goal, provided it is a distinct clearly defined portion of the Work that the DBE is certified to perform and the DBE Subcontractor performs the Work with its own forces and the DBE Subcontractor is performing a commercially useful function.

Crediting DBE Participation

All DBE Subcontractors, whether COA DBE Subcontractors or non-COA DBE Subcontractors, shall be certified before the subcontract on which it is participating is executed.

DBE Subcontract and Lower Tier Subcontract Documents

There ~~must shall~~ be a subcontract agreement that complies with 49 CFR Part 26 and fully describes the distinct elements of Work committed to be performed by the DBE. The subcontract agreement shall incorporate requirements of the ~~primary~~ Contract. Subcontract agreements of all tiers, including lease agreements shall be readily available at the ~~project~~ Project site for WSDOT review.

DBE Broker/Packager

The value of fees or commissions charged by a DBE Broker or a DBE behaving in a manner of a Broker for providing a bona fide service, such as professional, technical, consultant, managerial services, or for providing bonds or insurance will only be credited towards meeting the DBE COA Goal if the firm is determined to be performing a CUF.

Trucking

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The DBE trucking firm receives credit for the value of the transportation services it provides on the Contract using trucks it owns or leases, licenses, insures, and operates with drivers it employs.

The Work that a DBE trucking firm performs with trucks it leases from other certified DBE trucking firms qualify for 100% ~~percent~~ DBE credit.

Only the fees/commissions the DBE receives for arranging the transportation services provided is credited when trucks are leased from non-DBE trucking firm. The trucking Work subcontracted to any non-DBE trucking firm will not receive credit for Work done on the ~~project~~ Project.

Truck registration and lease agreements shall be readily available at the ~~project~~ Project site for WSDOT review.

DBE Manufacturer and DBE Regular Dealer

If materials or supplies are obtained from a DBE Manufacturer, 100 percent of the cost of materials or supplies can count toward the DBE COA Goal. The DBE Manufacturer shall be certified as such by OMWBE.

Sixty percent ~~(60%)~~ of the cost of materials or supplies purchased from a DBE Regular Dealer may be credited toward meeting the DBE COA Goal. If the role of the DBE Regular Dealer is determined to be that of a Broker, then the DBE credit ~~shall will~~ be limited to the fee or commission it receives for its services. Regular Dealer status is granted on a Contract-by-Contract basis.

A firm wishing to be approved as a Regular Dealer ~~must shall~~ submit a request in writing to WSDOT for approval, no later than ~~ten 10 Calendar Days prior to the DBE Utilization Certification Form being submitted or 14 Calendar Days prior to the firm doing work, whichever is earlier. working days prior to Bid opening.~~ The Approved Regular Dealers List is published on WSDOT's Office of Equal Opportunity (OEO) web site.

Purchase of materials or supplies from a DBE which is neither a ~~DBE Manufacturer~~ nor a ~~DBE Regular Dealer~~, (i.e. Broker) only the fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site, can count toward DBE COA Goal, provided the fees are not excessive as compared with fees customarily allowed for similar services. The cost of the materials and supplies themselves cannot be counted toward DBE COA Goal.

Note: Requests to be listed as a DBE Regular Dealer will only be processed if the requesting firm is certified by the Office of Minority and Women's Business Enterprises in a NAICS code that fall within the 42XXXX NAICS Wholesale code section.

Commercially Useful Function (CUF)

The Design-Builder may only take credit for the payments made for Work performed by a DBE that is determined to be performing a CUF. This applies to all DBEs performing Work on a ~~p~~ project, whether or not the DBE's are COA, if the Design-Builder wants to receive credit for their participation. The Design-Builder ~~will shall~~ conduct CUF (DBE On-Site) reviews, utilizing WSDOT Form #272-052 and #272-051, to ascertain whether DBE's are performing a CUF. WSDOT will perform audits of the CUF (DBE On-Site) reviews and may conduct additional CUF reviews at their discretion. ~~A DBE performs a CUF when it is carrying out its responsibilities of its contract by actually performing, managing, and supervising the Work involved. The DBE must be responsible for negotiating price; determining quality and quantity; ordering the material and installing (where applicable); and paying for the material itself. If a DBE does not perform "all" of these functions on a furnish and install contract, it has not performed a CUF and the cost of materials cannot be counted toward DBE COA Goal. Leasing of~~

Comment [Jlb2]: Julia Mizuhata says:
General comment. Won't failure to perform the reviews not only results in the DB being unable to take credit for the payments, but will result in the State being unable to take credit also?
Response: will add CUUF reviews to monthly reporting – Should we project 3 mo or 6 mo ahead?

Comment [Jlb3]: Julia Mizuhata says:
Revise "The Design-Builder will conduct..." to "The Design-Builder shall conduct..." Will typically implies something WSDOT performs.

Comment [Jlb4]: Julia Mizuhata says:
Both forms indicate that "WSDOT/Local Agency will perform onsite reviews..." Although this section indicates that the DB shall conduct these reviews, recommend identifying that the use of the term "WSDOT" on these forms shall mean the "Design-Builder". Also, note that the forms indicate that if the form is submitted with missing/incomplete info, it will be returned to the PE office for completion.

Revised DBE Language ~~46/625~~/2015

~~equipment from a leasing company is allowed. However, leasing/purchasing equipment from the Design Builder is not allowed. Lease agreements shall be readily available for review by WSDOT.~~

In order for a DBE traffic control company to be considered to be performing a CUF, the DBE ~~must~~ shall be in control of its Work inclusive of supervision. The DBE shall employ a Traffic Control Supervisor who is directly involved in the management and supervision of the traffic control employees and services.

The DBE does not perform a CUF if its role is limited to that of an extra participant in a transaction, contract, or Project through which the funds are passed in order to obtain the appearance of DBE participation.

WSDOT will use the following factors in determining whether a DBE trucking company is performing a CUF:

- The DBE shall be responsible for the management and supervision of the entire trucking operation. The owner demonstrates business related knowledge, shows up on site and is active in running the business.
- The DBE finances are independently controlled by the DBE.
- The DBE shall with its own workforce, operate at least one fully licensed, insured, and operational truck used on the Contract. Employees are shown exclusively on the DBE payroll.
- The DBE may lease trucks without drivers from a non-DBE truck leasing company. If the DBE leases trucks from a non-DBE truck leasing company and uses its own employees as drivers, it is entitled to credit for the total value of these hauling services.
- Lease agreements for trucks shall indicate that the DBE has exclusive use of and control over the truck. This does not preclude the leased truck from working for others provided it is with the consent of the DBE and the lease provides the DBE absolute priority for use of the leased truck.
- Leased trucks shall display the name and identification number of the DBE.
- Leased trucks shall be driven by DBE employees included in the DBE's payroll.

The DBE may lease trucks from another DBE including a DBE owner-operator. The DBE who leases trucks from another DBE shall claim participation for the total value of the transportation services the lessee DBE provides on the Contract.

Joint Checking

A joint check is issued by a Design-Builder to a Subcontractor and to a material supplier for items or services to be incorporated into a Project.

A joint check agreement must be approved by WSDOT and requested by the DBE involved using the DBE Joint Check Request Form (form #272-053) prior to its use. The form ~~must~~ shall accompany the DBE Joint Check Agreement between the parties involved, including the conditions of the arrangement and expected use of the joint checks.

The approval to use joint checks and the use will be closely monitored by WSDOT. To receive DBE credit for performing a CUF with respect to obtaining materials and supplies, a DBE ~~must~~ shall "be responsible for negotiating price, determining quality and quantity, ordering the material and installing (where applicable) and

Revised DBE Language ~~46/625~~/2015

paying for the material itself.” The Design-Builder shall submit DBE Joint Check Request Form for WSDOT approval prior to using a joint check.

Material costs paid by the Design-~~B~~builder directly to the material supplier are not allowed. If proper procedures are not followed or WSDOT determines that the arrangement results in lack of independence for the DBE involved, no DBE credit will be given for the DBE's participation as it relates to the material cost.

Prompt Payment

Prompt payment to all Subcontractors shall be in accordance with Section 1-08.1(1) of these General Provisions.

Procedures after Execution

After execution of the Contract, the Design-Builder shall provide the additional information described below.

As described in the ITP, each Proposer for this Contract was required to submit a DBE Performance Plan as part of a responsive Proposal. Following execution of the Contract and during both the design and construction portions of the Project, the Design-Builder shall submit documentation, in the form of progress reports described in the ~~s~~Section below entitled “~~Reporting~~REPORTING”, to show that the Design-Builder is meeting the DBE COA ~~G~~goal for the Project, or if the goal is not being met, the Design-Builder ~~must-shall~~ submit satisfactory evidence that it has made ~~G~~good ~~F~~faith ~~E~~efforts, in accordance with that Section, to meet the goal. Evidence of ~~G~~good ~~F~~faith ~~E~~efforts, as described in 49 CFR Part 26 Section 26.53, will be monitored by WSDOT throughout the duration of the Contract.

Before execution of a DBE COA subcontract, the Design-Builder, Subcontractor, or lower-tier Subcontractor shall submit the following items:

1. Information for all utilized COA DBEs (~~u~~Using the DBE Utilization Certification ~~F~~form, DOT Form 272-056 EF):
 - Correct business name, federal employee identification number (if available), and mailing address.
 - List of all items and types of Work assigned to each utilized DBE firm, including prices and ~~for~~ amounts paid. Prices and amounts paid apply to each item and type of work.
 - Description of partial items and types of Work (if any) to be sublet to each successful DBE firm specifying the distinct elements of Work under each item to be performed by the DBE and including the dollar value of the DBE portion.
2. As it occurs, names of firms who submit a bid or quote in an attempt to participate in this Project whether they were successful or not. Include the correct business name, federal employer identification number (optional), and a mailing address.
3. Information will be added progressively to the form ~~as subcontracts are executed~~ so all COA DBE ~~executed~~ subcontract information to date is shown.

The firms identified by the Design-Builder may be contacted by WSDOT to solicit general ~~i~~information as follows:

- Age of the firm.
- Average of its gross annual receipts over the past three years.

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Crediting DBE Participation toward Meeting the Goal

All DBE COA subcontracts shall be ~~listed on the DBE Utilization Certification Form~~~~executed~~ and the final DBE ~~Utilization Certification Form~~ shall be submitted prior to the Substantially Completed Design Milestone ~~in the RFP~~.

Reporting

All DBE ~~W~~work shall be reported. The Design-Builder shall submit a Monthly Report of Amounts Credited as DBE Participation to the WSDOT Engineer each month between Execution of the Contract and Physical Completion of the Contract using the application available at:

<https://remoteapps.wsdot.wa.gov/mapsdata/tools/dbeparticipation/>.

The monthly report is due 20 Calendar Days following the end of the month. A monthly report shall be submitted for every month between Execution of the Contract and Physical Completion regardless of whether payments were made or ~~W~~work occurred. After Execution of the Contract, the Design-Builder shall send an e-mail to DBEAdmin@wsdot.wa.gov containing the following information: the first and last name, email address, title, and phone number of the person that will be submitting the above documents for their company. The email shall include the WSDOT contract number they will be reporting on. After receipt of this information by WSDOT, the Design-Builder will receive an email containing their username and password for the application and a link to the application. Reporting instructions are available in the application. In the event that the payments to a DBE have been made by an entity other than the Design-Builder, as in the case of a lower-tier Subcontractor or supplier, then the Design-Builder shall obtain the certification from the paying entity and submit these payments to WSDOT with their monthly reports using the application available at:

<https://remoteapps.wsdot.wa.gov/mapsdata/tools/dbeparticipation/>.

The Design-Builder shall provide monthly DBE Progress Reports to WSDOT and shall also provide an annual report on or before July 1 of each year. The ~~monthly DBE Progress Report~~ shall include a comparison of the baseline of ~~P~~project COA DBE participation from the DBE Performance Plan with actual monthly reported COA DBE performance and a comparison of COA DBE participation commitments (~~executed DBE Utilization Certification Form~~ subcontracts) with the planned COA DBE participation. Each report shall also include a narrative and payment summary stating whether the Design-Builder is on target with respect to the established schedule for COA DBE participation, whether the goal is being exceeded (stating the amount of excess), or whether the goal is behind the target (stating the amount of the deficit), and what adjustments are being made to accomplish the plan. If the projected COA DBE performance is not met for two consecutive months, the Design-Builder shall provide a revised performance plan showing how the COA DBE goal will be met. If accepted by WSDOT, the revised plan will be used for future comparisons of monthly participation.

Comment [Jlb5]: Julia Mizuhata says: Crediting DBE Participation toward Meeting the Goal. Under Reporting, the requirements in the first two paragraphs is similar to 1-08.1 Subcontracting, except that under Subcontracting it discusses certifying the amounts paid. Basically the same requirement is in both this section and in 1-08.1. Should this just be in one section or the other?

Response: Teresa will check for redundancy

Changes in COA Work Committed to DBE

The Design-Builder shall utilize the COA DBEs to perform the ~~w~~work and supply the materials for which each is committed unless approved by WSDOT. The Design-Builder ~~shall will~~ not be entitled to any payment for ~~W~~work or material completed by the Design-Builder or other ~~S~~ubcontractors that was committed to be completed by the COA DBEs.

Comment [ET6]: Unless approved in advance by WSDOT

~~Owner~~WSDOT Initiated Changes

WSDOT will consider the impact on DBE participation in instances where WSDOT changes Work that was committed to a DBE at the time of Contract Award. In such instances, the Design-Builder ~~shall will~~ not be required to substitute for the Work but is encouraged to do so. WSDOT may direct DBE participation or solicitation of DBE's as part of a change order.

Design-Builder-Initiated Changes

Revised DBE Language ~~46/625~~/2015

The Design-Builder cannot reduce the amount of ~~w~~Work of a COA DBE without good cause, even if the Design-Builder continues to meet the DBE COA Commitment through other means. Reducing a COA DBE's ~~c~~Commitment is viewed as a partial DBE termination, subject to the procedures below.

Original Quantity Under runs

~~In the event that Work committed to a DBE firm as part of the COA underruns the original planned quantities the Design-Builder is encouraged to substitute the remaining applicable Work to another DBE but is not required to do so.~~

Design-Builder Proposed DBE Substitutions

Requests to substitute a COA DBE ~~must~~shall be for good cause (see DBE ~~T~~ermination ~~process~~ below), and requires the written approval of WSDOT. After receiving a termination with good cause approval, the Design-Builder may only replace a DBE with another certified DBE. ~~When any changes encountered between Contract Award and Execution that result in a substitution of COA DBE, the substitute DBE shall be certified prior to the Design Completion Milestone.~~

DBE Termination

Termination of a COA DBE (or an approved substitute DBE) is only allowed in whole or in part with prior written approval of WSDOT. The Design-Builder ~~must~~shall have good cause to terminate a COA DBE.

Good cause typically includes situations where the DBE Subcontractor is unable or unwilling to perform the ~~w~~Work of its subcontract. Good cause may exist if:

- The DBE fails or refuses to execute a written contract.
- The DBE fails or refuses to perform the Work of its subcontract in a way consistent with ~~normal~~ industry standards.
- The DBE fails or refuses to meet the Design-Builder's reasonable nondiscriminatory bond requirements.
- The DBE becomes bankrupt, insolvent, or exhibits credit unworthiness.
- The DBE is ineligible to work on public works projects because of suspension and debarment proceedings pursuant to ~~f~~ederal law or applicable State law.
- The DBE voluntarily withdraws from the ~~project~~Project, and provides written notice of its withdrawal.
- The DBE's owner dies or becomes disabled with the result that the DBE is unable to complete its Work on the ~~C~~ontract.

Good cause does not exist if:

- The Design-Builder seeks to terminate a COA DBE so that the Design-Builder can self-perform the Work.
- The Design-Builder seeks to terminate a COA DBE so the Design-Builder can substitute another DBE contractor or non-DBE contractor after execution of the COA DBE subcontract.
- The failure or refusal of the COA DBE to perform its Work on the subcontract results from the bad faith or discriminatory action of the Design-Builder (e.g., the failure of the Design-Builder to make timely payments or the unnecessary placing of obstacles in the path of the DBE's Work).

Revised DBE Language ~~46/625~~/2015

Prior to requesting termination, the Design-Builder shall give notice in writing to the DBE with a copy to WSDOT of its intent to request to terminate DBE Work and the reasons for doing so. The DBE shall have ~~five (5)~~seven ~~Calendar, D~~working ~~days~~ to respond to the Design-Builder's notice. The DBE's response shall either support the termination or advise WSDOT and the Design-Builder of the reasons it objects to the termination of its subcontract.

When a COA DBE is terminated, or fails to complete its ~~work~~Work on the ~~contract~~Contract for any reason, the Design-Builder shall substitute with another DBE, substitute other DBE participation or provide documentation of Good Faith Efforts. A plan to achieve the DBE COA ~~DBE~~ Commitment shall be submitted to WSDOT within ~~2~~ working ~~at three~~ Calendar Days of the approval of termination or the Contract shall be suspended until such time the substitution plan is submitted.

Decertification/Graduation

When a DBE is "decertified" or "graduates" from the DBE program during the course of the Contract, the participation of that DBE shall continue to count towards the DBE COA Goal as long as the subcontract with the DBE was executed prior to the decertification notice. The Design-Builder is obligated to substitute when a DBE does not have an executed subcontract agreement at the time of decertification/graduation.

Consequences of Non-Compliance

Breach of Contract

Each contract with a Design-Builder (and each subcontract the Design-Builder signs with a Subcontractor) must include the following assurance clause:

The Design-Builder, subrecipient, or Subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Design-Builder shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the Design-Builder to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient, deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the Design-Builder from future proposals as non-responsible.

Notice

If the Design-Builder or any Subcontractor, ~~c~~Consultant, DBE Regular Dealer, or service provider is deemed to be in non-compliance, the Design-Builder will be informed in writing, by certified mail by WSDOT that sanctions will be imposed for failure to meet the DBE COA Commitment and/or submit documentation of good faith efforts. The notice will state the specific sanctions to be imposed which may include impacting a Design-Builder or other entity's ability to participate in future contracts.

Sanctions

If it is determined that the Design-Builder's failure to meet all or part of the DBE COA Commitment is due to the Design-Builder's inadequate ~~g~~Good ~~F~~Faith ~~E~~Efforts throughout the life of the Contract, including failure to submit timely, required Good Faith Efforts information and documentation, the Design-Builder may be required to pay a DBE penalty

Revised DBE Language ~~46/625~~/2015

equal to the amount of the unmet DBE Commitment, in addition to the sanctions outlined in ~~the WSDOT Standard Specifications for Road, Bridge, and Municipal Construction~~, Section 1-07.11(5) of these General Provisions.

Payment

Compensation for all costs involved with complying with the conditions of this ~~s~~Specification and any other associated DBE requirements is included in payment for the associated Contract items of Work, except otherwise provided in the Contract Documents.

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1-08.1 SUBCONTRACTING

Work done by the Design-Builder's own organization shall account for at least 30 percent of the awarded Contract Price. Before computing this percentage, however, the Design-Builder may subtract (from the Contract Price at award) the costs of any subcontracted Work on items the Contract designates as specialty items. For this Project, no items are designated as specialty items. The Design-Builder shall not Subcontract Work unless WSDOT approves in writing. The Design-Builder shall submit all requests to Subcontract on the form WSDOT provides. If WSDOT requests, the Design-Builder shall provide proof that the Subcontractor has the experience, ability, and /or equipment the Work requires. Along with the request to sublet, the Design-Builder shall submit the names of any contracting firms that the Subcontractor proposes to Subcontract Work to.

Prior to subcontracting any Work, the Design-Builder shall verify that every first tier Subcontractor meets the responsibility criteria stated below at the time of Subcontract execution. The Design-Builder shall include these responsibility criteria in every Subcontract, and require every Subcontractor to:

1. Possess any electrical contractor license required by 19.28 RCW or elevator contractor license required by 70.87 RCW, if applicable;
2. Have a certificate of registration in compliance with chapter 18.27 RCW;
3. Have a current state unified business identifier number;
4. If applicable, have:
 - a) Industrial insurance coverage for the bidder's employees working in Washington (Title 51 RCW);
 - b) An employment security department number (Title 50 RCW);
 - c) A state excise tax registration number (Title 82 RCW);
5. Not be disqualified from bidding on any public works contract under RCW 39.06.010 or RCW 39.12.065(3);
6. Verify these responsibility criteria for every lower tier Subcontractor at the time of Subcontract execution; and
7. Include these responsibility criteria in every lower tier Subcontract.

The Design-Builder shall require each Subcontractor to comply with Section 1-07.9 and to furnish all certificates and statements required by the Contract.

Subcontracting shall not:

1. Relieve the Design-Builder of any responsibility to carry out the Contract;
2. Relieve the Design-Builder of any obligations or liability under the Contract and the Contract Bond;
3. Create any Contract between WSDOT and the Subcontractor; or
4. Convey to the Subcontractor any rights against WSDOT.

WSDOT will not consider as subcontracting: (1) purchase of sand, gravel, crushed stone, crushed slag, batched concrete aggregates, ready mix concrete, off-site fabricated structural steel, other off-site fabricated items, and any other materials supplied by established and recognized commercial plants; or (2) delivery of these materials to the Work Site in vehicles owned or operated by such plants or by recognized independent or commercial hauling companies hired by those commercial plants. However, the Washington State Department of Labor and Industries may determine that RCW 39.12 applies to the employees of such firms identified in 1 and 2 above in accordance with WAC 296-127. If this should occur, the provisions of Section 1-07.9, as modified or supplemented shall apply.

The Design-Builder shall certify to the actual amounts paid to Disadvantaged, Minority, Women's, or Small Business Enterprise firms that were used as Subcontractors, lower tier subcontractors, manufacturers, regular dealers, or service providers on the Contract. This certification shall be submitted to WSDOT on a monthly basis each month between Execution of the Contract and Physical Completion of the Contract using the application available at: <https://remoteapps.wsdot.wa.gov/mapsdata/tools/dbeparticipation>.

The monthly report is due 20 Calendar Days following the end of the month. A monthly report shall be submitted for every month between Execution of the Contract and Physical Completion regardless of whether payments were made or Work occurred.

Comment [jlb7]: Julia Mizuhata says:
Please see my comment under "Crediting DBE Participation toward Meeting the Goal".

Revised DBE Language ~~46/625~~/2015

If dissatisfied with any part of the subcontracted Work, WSDOT may request in writing that the Subcontractor be removed. The Design-Builder shall comply with this request at once and shall not employ the Subcontractor for any further Work under the Contract.

Prior to any Subcontractor or lower tier Subcontractor beginning work, the Design-Builder shall submit to the WSDOT Engineer a certification (WSDOT Form 420-004) that a written agreement between the Design-Builder and the Subcontractor or between the Subcontractor and any lower tier Subcontractor has been executed. This certification shall also guarantee that these Subcontract agreements include all the documents required by the General Provision "Federal Agency Inspection".

A Subcontractor or lower tier Subcontractor will not be permitted to perform any Work under the Contract until the following documents have been completed and submitted to WSDOT:

1. Request to Sublet Work (Form 421-012), and
2. Design-Builder and Subcontractor or Lower Tier Subcontractor Certification for Federal Aid Projects (Form 420-004).

The Design-Builder's records pertaining to the requirements of this General Provision shall be open to inspection or audit by representatives of WSDOT during the life of the Contract and for a period of not less than three years after the date of acceptance of the Contract. The Design-Builder shall retain these records for that period. The Design-Builder shall also guarantee that these records of all Subcontractors and lower tier Subcontractors shall be available and open to similar inspection or audit for the same time period.

The Design-Builder shall ensure that a Certification for Federal-Aid Contracts (Form DOT 272-040) is included in every contract with any Subcontractor whose contract exceeds \$100,000. By signing the contract any Subcontractor will be deemed to have signed and agreed to the conditions and requirements of the Certification for Federal-Aid Contracts. The Design-Builder shall keep evidence in their files that such Subcontractor has committed to this requirement.

The Design-Builder shall require any Subcontractor or lower tier Subcontractor whose contract exceeds \$100,000 to submit Standard Form LLL, "Disclosure of Lobbying Activities", in accordance with the instructions on the form, except that, Standard Form LLL shall be submitted to the Design-Builder for submittal to WSDOT.

2.28 QUALITY MANAGEMENT PLAN (QMP)

2.28.1 GENERAL

The Quality Management Plan (QMP) shall be consistent with the summary information submitted with the Design-Builder's proposal, and shall be approved in writing by WSDOT. A draft QMP shall be submitted to WSDOT within 30 Calendar Days of Notice to Proceed. WSDOT will not accept any Final Design Submittals until the Design-Builder's Final QMP for design has been approved in writing by WSDOT. No construction Work activities that require Quality Assurance (QA)/Quality Control (QC) inspection and testing shall commence until the Design-Builder's Final QMP for construction has been approved in writing by WSDOT. The QMP shall remain in effect until all requirements of the Contract have been fulfilled and the Project is accepted.

WSDOT has developed a non-project-specific QMP Outline that is available at the following website: <http://www.wsdot.wa.gov/Projects/delivery/designbuild/>

In developing its own QMP, the Design-Builder is encouraged to follow the organization and format of the QMP Outline. The Design-Builder may elect to use all or part of the QMP Outline. When using the QMP Outline, the Design-Builder shall make changes to section headings and text as needed to meet project-specific requirements and the Design-Builder's own quality approach. The QMP Outline is provided for informational purposes only. WSDOT accepts no responsibility for the content of the QMP Outline, nor does WSDOT warrant that use of the QMP Outline will result in Contract compliance.

The Design-Builder's QA team is responsible for obtaining all documentation necessary for approval and acceptance of materials; obtaining materials certifications as required; ensuring that all required materials testing is completed; and ensuring that all test results meet the Contract requirements. The Design-Builder's QA team shall inspect all Work and ensure that sufficient QA staff is present to determine whether the Work complies with Contract requirements, in accordance with the process required in the Contract Documents and the approved QMP.

The Design-Builder shall be responsible for all materials acceptance testing on this Project except for the materials listed in Section 2.25. The Design-Builder's QA team is responsible for performing all materials acceptance testing referenced in the Standard Specifications, the *WSDOT Construction Manual* (Appendix D), or any other Contract Document.

The QMP shall detail how the Design-Builder shall provide QA and QC for design and construction of the Project, and verify that all environmental and permit commitments are met to ensure the Work conforms to the Contract requirements. The Design-Builder shall comply with the applicable environmental requirements and the WSDOT and AASHTO publications listed in these Technical Requirements in preparing the QMP. The Design-Builder shall revise the QMP and its implementation when repetitive or recurring quality issues arise.

The Design-Builder's QMP shall include an organizational chart of the QA and QC personnel, listing the number of full-time equivalent employees, specific responsibilities for each employee, and the lines of authority and reporting responsibilities. The QA and QC teams and personnel shall be completely independent of each other, with separate reporting authorities. This organizational chart shall be updated to reflect any changes in QA and QC personnel as the Project progresses. The personnel and organizations

performing QA functions shall have sufficient authority and organizational autonomy to identify quality issues, and to be able to initiate, recommend, and verify implementation of Corrective Action Plans. Personnel performing QA functions shall be at an organizational level that ensures they will not be influenced by the impact of the QA measures on the Project schedule, performance, or cost. The QMP shall list by discipline the name, qualifications, applicable certifications, duties, responsibilities, and authority for all personnel proposed to be responsible for QA and QC. Personnel performing QA functions shall not be assigned to perform conflicting duties.

2.28.1.1 ~~VAGANT~~ ***PARTNERING AND DISPUTE RESOLUTION***

***Partnering shall be considered an integral part of the QMP. A partnering agreement is recommended for handling disputes. During the initial partnering session, a separate procedure for conflict resolution shall be developed and agreed to by the partners. The procedure shall include, but is not limited to, the following elements:

- Before the Project begins, a time frame for resolving disputes at each level of authority shall be established and a list of typical disputes that could occur on the Project shall be developed.
 - Disputes shall be delegated to the lowest appropriate level of authority on the Project team for resolution within the specified time frame.
 - If the dispute is not resolved to the satisfaction of both parties within the specified time frame, the dispute shall be automatically elevated to the next level of authority on the Project team. The elevation process shall be developed by and agreed to by both WSDOT and the Design-Builder at the conclusion of the initial partnering session.
 - If still unresolved, the dispute shall then be directed to the highest level of authority where a final resolution shall be arbitrated by an unbiased third party, whose selection would be agreed upon in advance as part of the QMP.
 - A written report prepared by the Design-Builder and signed by both WSDOT and the Design-Builder, describing the dispute, all subsequent actions, and final disposition of the dispute shall be submitted to the Project records.
 - If subsequent disputes arise regarding the same issue, the written report shall be included as a resource during the resolution process.
- Disputes not resolved informally through the partnering process may be brought to the Disputes Review Board in accordance with Section 1-04.5 of the General Provisions. ***

2.28.1.4

2.28.1.2 PRE-ACTIVITY MEETINGS

The Design-Builder shall hold pre-activity meetings to ensure that all Project personnel have a thorough understanding of the Work to be accomplished. Multiple occurrences of the pre-activity meeting may take place due to project complexity or duration. Work activities include design, survey, fabrication, and construction activities that generally correspond to the Sections of the Standard Specifications, such as clearing and grubbing, earthwork, aggregate base, and hot mix asphalt (HMA), or a definable feature of Work, such as pre-paving conference and pre-pour conferences for bridge decks.

The pre-activity meetings should include discussions relating to what type of Work shall be accomplished, by whom it will be performed, tools and resources required, and where, when, and how the Work will be done. The pre-activity meetings are to ensure that all parties have the same understanding of the design intent; have the appropriate plans, specifications, environmental requirements, and any special details; and are aware of safety

Comment [j1b1]: Teresa Eckard: SR 520 FB&L). RFP 2.28.1.1..., this section used to contain the "Partnering and dispute resolution"..., this section now appears to be missing. This section is still needed..., but the way it used to read it made it sound like the process to escalate went to the DRB way too quickly. SR520 program questions why issues of Quality should ever be allowed to go to the DRB. If it is interpretation of contract that has potential to be big dollars at stake, then that would be appropriate to go to the DRB..., however strictly questions of material acceptance, QA and QC process issues doesn't sound like a likely issue for the DRB. Clarification would be needed as to what type of "Quality" issues would ever go to the DRB.

Comment [j1b2]: Randall Mawdsley: Agreed, I was not responsible for its removal and would agree that it should be reinstated. It was removed between contract 8216 and 8393 which were Northwest Region/SR 405 projects. Bob Briggs didn't leave me any information as to why it was removed or if he concurred with the removal.

Response – Randy will review language, and add in appropriate portions, provide steps prior to DBR escalation for quality issues that can't be resolved, Teresa will add direction to the author on use/options (omitted for smaller jobs)

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Comment [j1b3]: Teresa Eckard: SR520 FB&L RFP 2.28.1.2..., Need to clarify that pre-activity meetings are to be determined thru-out the length of project and hold-points that are to be presented in those meetings are to be initially proposed by the Engineer-of-Record and need to be APPROVED by WSDOT. The current version of the RFP states "Pre-activity meetings are classified as Hold Points and shall be identified in the QMP"..., however this is very difficult to accomplish in project start-up in the initial versions of the QMP, so wouldn't it be better to instead simply state the Pre-Activity meetings shall be scheduled by the CQAM to coincide with the RFC release for new type of Work?

Comment [j1b4]: Randall Mawdsley: I agree but, again this would be far more prescriptive. Furthermore there are at least three QMP versions by major Design-Build firms or JV's that are mature enough that the "start-up" reference doesn't really work in my view.

Response: Randy will review the language and make sure that the requirements for the pre-activity meetings are already in this section.

regulations and procedures that need to be followed. The QA inspection checklist for each activity shall be reviewed in the meeting.

Pre-activity meetings should be scheduled a minimum of three Calendar Days, but not more than ten Calendar Days, or as mutually agreed upon by the Design Builder and WSDOT, prior to the start of any Work activity. The Design-Builder's Design QA Manager or Construction QA Manager shall plan, conduct, and take minutes at the pre-activity meetings. The Design-Builder shall document any clarifications and understandings related to the Work activity that are not documented elsewhere in the minutes of the meeting. The Design-Builder shall distribute the minutes to attendees and other QA, QC, and Quality Verification (QV) staff who require the information. Pre-activity meetings are classified as Hold Points, and shall be identified in the QMP.

Example topics for a Pre-Activity Meeting:

- Scope (design criteria and intent, constraints);
- Applicable documents;
- Work activity outline and schedule (what, where, who, when, and how);
- Staking plan;
- ~~Geometry control plan;~~
- Safety regulations and procedures;
- Maintenance of Traffic (MOT) Plan;
- Environmental requirements;
- BMPs to be installed prior to Work;
- Notification, monitoring, and reporting requirements;
- Work area ingress/egress;
- Coordination and Utilities;
- Inspection Plan/QA procedures;
- Concurrent Work activities and QA staff coverage;
- Status of submittals;
- Acceptance criteria, including Hold Points;
- Status of materials approval and acceptance requirements;
- Frequency of materials testing;
- Examination of the Work area;
- Examination of stored material; and
- Open discussion.

2.28.1.3 QUALITY ASSURANCE TASK FORCE

WSDOT and the Design-Builder will jointly form a Quality Assurance Task Force team. The task force meetings will address and rectify issues relating to inspection, substandard material quality, inadequate QA and QC processes that need to be adjusted, test results that

are out of tolerance, disparity between QA and QV test data, future quality concerns, and any issues that WSDOT and the Design-Builder may have regarding quality of the Project.

At a minimum, the Design-Builder shall assign the Project Quality Manager (described below), the Construction QA Manager, the Design QA Manager, the superintendents, the personnel in charge of QA and QC activities, and any other personnel the Design-Builder acknowledges as having quality-related concerns from the Design-Build team to the Quality Assurance Team. WSDOT may assign similar personnel related to the Project or others having quality concerns on the Project to the Quality Assurance Team.

The Project Quality Manager or the Construction QA Manager shall be responsible for setting the meeting schedule and agenda, and documenting the meeting minutes and distribution to attendees. At the start of the design and construction phases, meetings shall be held weekly to discuss quality issues. The meeting frequency may decrease as quality issues decrease. In the event that Contract performance becomes substandard, WSDOT will require that the Quality Assurance Team meet more frequently.

The Design-Builder shall review all of the current and unresolved Nonconformance Reports (NCR) and Nonconforming Issues (NCI) during the Quality Assurance Task Force meetings. For each NCR and NCI, the Design-Builder shall address the following items at the Quality Assurance Task Force meetings:

- Action taken by QC – How will QC or production ensure the NCR/NCI will not be repeated? How has this action been addressed in the QMP?
- Action taken by QA – How will QA ensure the NCR/NCI will not be repeated? How has this action been addressed in the QMP?
- Resolution of the initial issue that caused the NCR/NCI – How was it corrected?
- How to prevent the issue from becoming a recurring error?

Example topics for a weekly Quality Assurance Task Force Meeting:

- Safety;
- Schedule;
- Review of previous action items from prior weeks;
- Current and upcoming activities;
- QA/QC inspections and testing;
- Materials documentation status;
- Review of statistical materials evaluation;
- Open NCRs/NCIs; and
- New issues.

Note: For each item, the Design-Builder shall record clear action items, due dates, and responsibilities in the meeting minutes.

2.28.1.4 EXECUTIVE MANAGEMENT REVIEW

The Design-Builder's Executive Management (person or group with overall Project management responsibilities) shall approve the QMP, and conduct a review or an internal audit of the QMP at least quarterly, and more frequently if repetitive QA issues and

Corrective Action Reports have been issued. This review or internal audit shall ensure the QMPs ongoing suitability and effectiveness in satisfying the requirements of the Contract and the Design-Builder's stated quality policy and objectives.

The Design-Builder shall invite WSDOT to participate in the Executive Management Reviews.

At a minimum, the Executive Management Review or internal audit shall evaluate the results of the review, WSDOT audit results, Corrective Action Reports, and plans implemented as a result of the NCRs and NCIs. The Design-Builder shall respond within 20 Calendar Days to requests for the implementation of Corrective Action Plans that result from Executive Management Reviews. The Design-Builder shall incorporate the updated Corrective Action Plan into the QMP in a timely manner. Any changes to the QMP shall be approved by WSDOT.

2.28.1.5 QUALITY SYSTEM

2.28.1.5.1 General

The Design-Builder shall prepare a QMP that includes a quality system which meets the Contract requirements.

The hierarchy of the documents describing the quality system shall be:

- Quality policy (for the entire system);
- Quality objectives;
- Resources (for each section of the QMP);
- Procedures; and
- Work instructions.

The QMP shall include a flow chart or other graphical representation showing the processes and their relationships to each other, the inspection and test controls, and a narrative for each process.

The QMP shall include written procedures that describe the purpose, overview, responsibilities, and steps of the quality system process, and records resulting from the process.

The QMP shall include an Inspection and Test Plan describing all of the proposed QA inspections and tests to be performed throughout the construction process. The Construction QA Manager shall review and approve all Inspection and Test Plans.

In addition, the QMP shall:

- Describe all of the material receiving, in-process, and final inspections and tests to be undertaken.
- Show what products or services are to be subcontracted.
- Describe the process to verify compliance by suppliers and subcontractors with requirements.
- Identify who within the Construction QA organization has stop Work authority.

2.28.1.5.2 Vacant

2.28.1.5.3 Other Project Documents

The QMP shall describe how it is applied to all submittals required by the Contract. The following is a list of plans and documents that may be required in addition to the design and construction documents specifically addressed in this Section. This is not a comprehensive list; other documents may be required to complete the Work.

- Safety Management Plan, including Accident Prevention Program, and Site Safety Plan;
- Project Communications Plan;
- Environmental Compliance Plan;
- Environmental Commitment Close Out Report;
- Environmental permit application materials;
- Utility Management Plan;
- Project progress schedule;
- Submittal schedules;
- Design schedule, acknowledging documents, or packages that will be submitted for review;
- Roadside Work Plan;
- Traffic Management Plan;
- Traffic Incident Management Plan;
- Issue Resolution Plan;
- Document Control Work Plan; and
- Construction documentation including, but not limited to:
 - Inspector's Daily Reports;
 - Non-Conformance Reports and Non-Conformance Issues;
 - QA and QC inspection checklists;
 - Materials Testing Reports; and
 - Traffic Control Supervisor's Daily Report.

2.28.1.6 PRE-APPROVED CORRECTIVE ACTION PLAN

The Design-Builder shall develop a Pre-Approved Corrective Action Plan that shall be incorporated into the QMP. The Pre-Approved Corrective Action Plan shall be approved by WSDOT.

The Pre-Approved Corrective Action Plan shall address Work that does not meet specifications, out of specification material, or pre-approved re-work and repair procedures.

The following is a sample list of items for which pre-approved re-testing, re-work, and repair procedures are commonly needed. Anticipated failures may include, but are not limited to, the following:

Soil

- Use of improper or incorrect density standards;
- Lack of compaction;
- Subgrade too wet;
- Subgrade too soft;
- Slope failure;
- Materials out of specification; and
- Soil too wet.

Hot Mix Asphalt

- Materials out of specification; and
- Low density.

Rebar

- Poor or incorrect locations;
- Insufficient clearance or lack of support;
- Damaged epoxy coating on reinforcing steel, including damage due to field cutting or bending;
- Broken ties or displaced bars;
- Out-of-specification, post-tension tendon elongations; and
- Post-tensioning ducts that fail air pressure testing.

Concrete

- Slump out of specification;
- Improper cold weather curing;
- Rock pockets, small and large;
- Repair of cracked concrete;
- Temperature out of specification;
- Air content out of specification (too low or too high);
- Inadequate counter reporting;
- Improper certification of compliance;
- Exceeding maximum allowed time between concrete lifts;
- Over time limit; and
- Incorrect mix design.

The Design-Builder shall add re-testing, re-work, and repair procedures to the QMP as repetitive nonconformances are identified.

2.28.2 DESIGN-BUILDER QUALITY ASSURANCE (QA) AND QUALITY CONTROL (QC) STAFF

2.28.2.1 PROJECT QUALITY MANAGER

The Design-Builder shall designate a Project Quality Manager who shall be responsible for developing and updating the QMP, and scheduling and facilitating the Executive Management Review. The Project Quality Manager shall report directly to the person or group with overall Project management responsibilities such ~~as the Project Manager~~, an off-Site principal ~~or Project sponsor~~, or an executive oversight committee established for the Project. The Project Quality Manager could also be the Design Quality Assurance Manager, or the Construction Quality Assurance Manager, but cannot be both the Design and Construction Quality Assurance Managers.

Minimum Qualifications

The Project Quality Manager must have at least ~~***ten***~~ years of recent experience in the management of a quality management program for ~~***major urban freeway***~~ projects.

2.28.2.2 DESIGN QUALITY ASSURANCE (QA) MANAGER

The Design-Builder shall designate a Design QA Manager who shall have overall responsibility for the design portion of the QMP. Through audits, the Design QA Manager shall be responsible for verifying and validating that the QA and QC procedures required by the QMP are administered and being followed. The Design QA Manager shall report to the Project Quality Manager, ~~or to the person or group with overall Project management responsibilities~~. The Design Quality Manager could also be the Project Quality Manager, but cannot be the Construction Quality Assurance Manager.

In accordance with this Section and the QMP, the Design QA Manager shall certify that all Design Documents have been subjected to all required QC checking procedures; all documentation has been completed and filed in an acceptable manner; and all design packages have been subjected to a QA audit prior to submittal to WSDOT or prior to release.

Minimum Qualifications

The Design QA Manager must be a Licensed Professional Engineer in the State of Washington, and have at least ~~***ten***~~ years of recent experience in the design or quality management of major urban freeway projects.

2.28.2.3 CONSTRUCTION QUALITY ASSURANCE (QA) MANAGER

The Design-Builder shall designate a Construction QA Manager who shall have overall responsibility for implementation of the construction portion of the QMP. The Construction QA Manager shall be responsible for implementing, monitoring, and adjusting the processes to assure acceptable quality. The Construction QA Manager shall report directly to the Project Quality Manager, or to the person or group with overall Project management responsibilities. The Construction QA Manager could also be the Project Quality Manager or the Quality Testing Supervisor, but cannot be the Design Quality Assurance Managers.

Comment [jlb5]: Teresa Eckard: SR520 FB&L RFP 2.28.2.1...., The Project Quality Manager position needs to report directly (and only) to the signature authority of the Design-Builder (the one person who signed the Proposal contract form) and to no one else (i.e. not to anyone with overall Project Management responsibilities). The section also needs to clarify this person is required to provide a report to every EOC meeting. If the signature level person leaves the DB organization that person will report to that person's replacement in the joint-venture (again only one person).

Response: Modify language as noted, clarify report (ref 2.28.1.4) , add definition of principal

Comment [ET6]: Teresa to add direction to Engineer to fill in

Comment [jlb7]: Teresa Eckard: SR520 FB&L RFP 2.28.2.2...., The DQAM role should be clarified to include auditing design packages of both temporary and permanent design Work.

Comment [jlb8]: Randall Mawdsley: Agreed

Response: Randy add to subsections

It is the responsibility of the Construction QA Manager to implement quality planning; oversee the QA testing and inspection; and coordinate with WSDOT's verification testing, inspection, and Independent Assurance (IA) requirements. All duties listed for the Project Engineer in Section 9-1.4 of the *WSDOT Construction Manual* (Appendix D) shall be the responsibility of the Construction QA Manager or designee. The Construction QA Manager shall not be assigned to perform conflicting duties on the Project. The Construction QA Manager is an oversight position, therefore, shall not be allowed to perform testing or inspection duties. The Construction QA Manager shall have the authority to stop any Work that does not meet the standards, specifications, or criteria established for the Project.

The Construction QA Manager or a designated Assistant Construction QA Manager shall be available so that they can be on the Project Site within two hours of being notified of a problem regarding the QA of any Work being performed by the Design-Builder, or any of its subcontractors or agents.

Minimum Qualifications

The Construction QA Manager must have at least ***six*** years of recent experience overseeing the inspection and materials testing on major highway construction projects. Of the ***six*** years minimum, the Construction QA Manager shall have a minimum of ***three*** years' experience in construction materials acceptance administration and a minimum of ***three*** years' experience in construction inspection administration. The experience of an assistant to the Construction QA Manager may be used to meet the experience requirement of up to ***three*** years of either construction inspection or construction materials administration.

2.28.2.4 MATERIALS APPROVAL ENGINEER

The Design-Builder shall designate a Materials Approval Engineer who shall have authority for the approval of all materials, and shall review and approve all materials submitted through RAM, QPL, and proprietary items for the Project in accordance with Section 9-1.3 of the *WSDOT Construction Manual* (Appendix D). The Materials Approval Engineer shall report directly to the Design Manager. The Materials Approval Engineer could also be the Project Quality Manager or the Design QA Manager, but cannot have responsibility for construction production.

Minimum Qualifications

The Materials Approval Engineer must have ***five*** years of design experience in major highway design or equivalent and must be a registered Professional Engineer in the State of Washington. The Materials Approval Engineer shall be an employee of the firm that leads the design for the Design-Builder, shall be independent from Construction QA, and shall report to the Engineer of Record.

2.28.2.5 ENVIRONMENTAL COMPLIANCE MANAGER (ECM)

Refer to Section 2.8.

2.28.2.6 QUALITY TESTING SUPERVISOR (QTS)

The Design-Builder shall provide a Quality Testing Supervisor (QTS) who may be an employee of the Design-Builder's QA testing laboratory or of the independent testing laboratory hired to perform the QA testing. The QTS or their representative shall be at the site where the testing is being performed. The QTS shall schedule, review, and verify for

Comment [j1b9]: Randall Mawdsley: I would propose the following insertion "The Construction QA Manager is an oversight position, therefore, shall not be allowed to perform testing or inspection duties."

Response: include insertion, Teresa suggested "unless approved by WSDOT Engineer", Randy to check if OK with State Materials Engineer. If not OK, will not include Teresa's suggestion.

compliance all test reports performed by the QA testing laboratory. The QTS shall report to the Construction QA Manager. The QTS cannot have responsibility for construction production or be the Construction QA Manager.

Minimum Qualifications

The QTS shall meet one of the following qualifications:

- Professional Engineer license; an Engineer-In-Training; or a Bachelor of Science Degree in Civil Engineering, Civil Engineering Technology, Construction, or related ~~experience~~ ~~degree~~; and at least ***four*** years of highway materials testing experience; or
- Certification by the National Institute for Certification in Engineering Technologies in the Construction Materials Testing field as an Engineering Technician (Level III) or higher, with at least ***four*** years of experience in the appropriate subfield in which sampling and testing is being performed; or
- ***Eight*** years of highway materials testing and construction experience.

Comment [j1b10]: Experience is already covered in the next sentence as well as in the 3rd bullet. Why is it included as an option under type of degrees? Is the intent that this refer to a degree in another related field? If so, we need to make that clear and determine who will approve if the other field is acceptable.

Response : Revise per markup

2.28.2.7 ELECTRICAL/INTELLIGENT TRANSPORTATION SYSTEM (ITS) INSPECTOR

The Design-Builder shall provide an Electrical/ITS Inspector. The Electrical/ITS Inspector shall report to the Construction QA Manager. The Electrical/ITS Inspector cannot have responsibility for construction production or QA inspection.

Minimum Qualifications

The Electrical/ITS Inspector shall have the following minimum qualifications:

- Administrator and Master Electrician certificate (AD-01) issued by the Washington State Department of Labor and Industries and ***four*** years of experience supervising the installation of highway electrical and/or ITS systems; or
- ***Eight*** years of experience in engineering highway electrical systems including illumination, traffic signals, and/or ITS systems, and ***four*** years of full-time experience as an electrical inspector on highway construction projects.

The Design-Builder's Electrical and ITS Inspector shall notify WSDOT when electrical and ITS components are ready to be inspected for code compliance, functionality, and acceptance as required by WAC 296-46B-010.

2.28.2.8 GEOTECHNICAL SPECIAL INSPECTOR (GSI)

Refer to Section 2.6.

2.28.2.9 QUALITY ASSURANCE TESTING TECHNICIANS AND QUALITY ASSURANCE INSPECTION TECHNICIANS

2.28.2.9.1 QA Testing Technicians

The QA Testing Technicians performing the field and laboratory QA sampling and testing shall be employed by the Design-Builder or an agent's laboratory. The QA Testing Technicians shall not be affiliated with or employed by any materials supplier or subsidiaries or the QC organization. The QA Testing Technicians shall not perform QC testing. The QA Testing Technicians shall report to the Construction QA Manager or the QTS.

Minimum Qualifications

The QA Testing Technicians shall have the following qualifications for all tests they perform:

- Qualified in accordance with AASHTO R-18, using the procedural checklist in the *WSDOT Materials Manual* (Appendix D). The qualifications of the laboratory technicians employed by an AASHTO accredited laboratory will be accepted for performing AASHTO test methods only when confirmed by the laboratory's training and evaluation records. Copies of the qualification records and the procedural checklists for each tester shall be provided to the WSDOT Engineer for review three Calendar Days prior to the tester performing any QA testing.
- Qualified in concrete testing by the American Concrete Institute (Level I).

The competency of each QA Testing Technician shall be re-evaluated annually in all tests they perform, in accordance with the laboratory's Laboratory Quality Systems Manual approved by WSDOT.

2.28.2.9.2 QA Inspection Technicians

The QA Inspection Technicians shall inspect, verify materials, and document all construction activities for compliance to the Contract. The QA Inspection Technicians shall not be affiliated with or employed by any materials suppliers or subsidiaries or the QC organization. The QA Inspection Technicians shall not perform QC inspection. The QA Inspection Technicians shall report to the Construction QA Manager.

Minimum Qualifications

The QA Inspection Technicians shall have the following qualifications:

- A minimum of ***four*** years of qualifying experience in roadway or structural construction inspection.

2.28.2.9.3 Quality Assurance Staff Training

The Design Builder shall provide training to the QA staff in the applicable procedures for inspection of Work, geotechnical and environmental monitoring, and material sampling and testing. The professional training and experience of the QA staff (including biologists, hydrologists, and geotechnical engineers) shall be commensurate with the scope, complexity, and nature of the activity to be inspected, monitored, or tested.

The QA Testing Technicians and construction inspectors may attend the instructional courses WSDOT provides its personnel on a space-available basis, at no cost to the Design-Builder. These classes may be offered only once a year. The following classes will be available:

| Course | Hours |
|----------------------------------|-------|
| Asphalt Paving Street Inspection | 4 |
| Drainage Inspection | 4 |
| Bridge Substructure Inspection | 4 |

Comment [jlb11]: What is "qualifying"? Is this defined somewhere?

Response: See markups

Comment [jlb12]: Frank Young: Training for Env and GeoTech should be addressed in the applicable sections.

Response: Markup as shown

Comment [jlb13]: Jeff Lavinder: I agree it should also be stated in those sections, but for QA testing, it is applicable here too.

JLB: it should not be stated twice in different sections – this is a recipe for conflicts if one gets changed and the other doesn't.

Response: See above, also, check 2.6 and 2.8 to make sure it is covered

Comment [jlb14]: Randall Mawdsley: While Frank makes a good point these are areas are crossed over frequently by QA inspector's that have several areas of expertise and I believe removing it to the area of expertise solely does not address the quality aspect of these individual's requirements.

Comment [jlb15]: Verify classes are available

| Course | Hours |
|--|-------|
| Bridge Superstructure Inspection | 4 |
| Drilled Shafts | 4 |
| MSE Walls | 4 |
| Project Documentation | 4 |
| Excavation and Embankment Inspection | 4 |
| Nuclear Gauge, Embankment/Surfacing/Pavement Applications | 4 |
| PCC Pavement Production, Placement, and Field Testing Procedures | 4 |
| Electrical – Illumination and Signals | 4 |

2.28.2.9.4 Quality Assurance Staffing Levels

QA staffing levels shall be identified in the QMP and updated as necessary during the course of the Project to reflect the actual construction schedule. The size of the QA staff shall reflect the complexity, needs, shifts, and composition of the construction activities consistent with the construction schedule, relative locations of the Work to be covered, ~~geotechnical considerations, Environmentally Sensitive Areas,~~ and specific nature of the Work. WSDOT will Review and Comment on proposed staffing levels to ensure the Project requirements are adequately met. Construction shall not take place when QA staffing levels are inadequate to provide the inspection and testing required by the Contract. At a minimum, there shall be at least one QA Inspector on the Project Site at all times when permanent Work is being incorporated into the Project. The Design-Builder shall identify and provide adequate QA staff to fulfill all inspection and testing requirements, particularly during concurrent Work activities.

Comment [Jlb16]: Frank Young: Compliance items such as Env and Geotech inspections should be addressed in their appropriate sections.

Comment [Jlb17]: Randall Mawdsley: I would repeat the previous comment in this case as well.

Response: per markups and check 2.6 and 2.8 to make sure covered.

2.28.2.9.5 Rights to Remove Quality Assurance Staff

By written notice, WSDOT reserves the right to permanently remove any of the following personnel from the Project:

- A QA Testing Technician who does not perform the QA tests in accordance with the test methods.
- A QA Testing Technician who does not report test results accurately.
- A QA Inspecting Technician or geotechnical or environmental monitor who, in the opinion of WSDOT, does not exercise good judgment in the performance of their duty.
- A QA Testing Technician who is not certified in accordance with the Contract requirements.

2.28.2.10 QUALITY CONTROL TESTERS AND PERSONNEL

The Design-Builder shall perform, control, and ensure that operational techniques and activities provide acceptable quality, and are in compliance with the Contract. The QC personnel may be a separate organization within the Design Builder's organization; the Design-Builder's front line supervisors; the supplier, producer, or manufacturer; but in no case shall be associated with the QA organization. The QC personnel shall be trained and provided the necessary tools, testing procedures, and inspection checklists to ensure the Work product meets the Contract requirements. The QC Testers and Inspectors shall report to the Construction Manager or designee. The designee shall not be the Construction QA Manager.

2.28.3 DESIGN QUALITY ASSURANCE AND QUALITY CONTROL REQUIREMENTS OF THE QUALITY MANAGEMENT PLAN

2.28.3.1 GENERAL

The QMP shall specify all aspects of the QA and QC for design. The QA and QC procedures for each type of Design Document and Released for Construction (RFC) Document shall be organized by engineering discipline. The Design-Builder shall include measures and objective evidence to ensure that appropriate quality standards are specified and included in the Design Documents and RFC Documents, and to control deviations from the standards. The Design-Builder shall not deviate from the standards unless the deviation has been approved by WSDOT.

The QMP shall include the following:

- QA and QC procedures for preparing, submitting, checking, back-checking, correcting, and verifying all plans, calculations, special provisions, drawings, and other items to ensure that they are independently checked and back-checked by experienced architects and engineers, in accordance with generally accepted architectural and engineering practices. The Design-Builder originator, checker, back-checker, corrector, and verifier shall be clearly identified on the face of all submittals.
- Specific procedures for validating computer programs used on the Project.
- QA and QC procedures for verifying that all submittals meet the requirements of the Contract.
- Assurance that all materials, equipment, and elements of Work have been provided for and designed to perform satisfactorily for the purpose intended.
- A defined process for stamping, signing, and dating, plans, reports, and other documents by the responsible Professional Engineer licensed under Title 18 RCW in the State of Washington, where required by the Contract.
- The level, frequency, and methods of review for the adequacy of the design of the Project.
- The method by which drawing changes are incorporated into a plan sheet. This shall include specific definitions of Minor Change and Significant Revision, the threshold between them, and how such changes will be reflected in a Design Document or RFC document. The QMP plan shall also identify the specific

process by which Significant Revisions will be reviewed and stamped by the original Engineer of Record.

- The procedures for coordinating Work performed by different personnel in the same area, in adjacent areas, or on related tasks to ensure that conflicts, omissions, or misalignments do not occur between the drawings or between the drawings and the specifications; and to coordinate the review, approval, release, distribution, and revision of documents involving such personnel.
- Identification of those elements of the Contract, Design Documents, or RFC Documents requiring special QA and/or QC attention or emphasis, including applicable standards of quality or practice to be met, and level of completeness and/or extent of detailing required.
- Identification by discipline of the name, qualifications, duties, responsibilities, and authorities for all persons responsible for QA and QC.
- Description of the name, qualifications, duties, responsibilities, and authorities of external technical experts necessary to ensure the quality of the design of the Project. Information regarding the anticipated timing, use, anticipated availability, and any coordination required with respect to any experts.
- Procedures for assuring that the documents fully provide for constructability and compatibility of materials.
- Identification of the inspection guidelines for each item of Work to determine what significant characteristics of each item needs to be monitored during the construction phase to ensure that the completed Project will function in accordance with the design intent over its expected lifetime. The inspection guidelines shall include the appropriate criteria, tests, and inspection requirements described in this Section.
- Descriptions of the required design QA and QC functions, including scheduled activities for design QA and QC identifying the Design Documents and RFC Documents to be delivered to WSDOT for its review at each stage of the design or construction phase of the Project. The QMP shall specify written certifications by the Design QA Manager for each submittal document showing that all QMP requirements have been completed satisfactorily.
- Development and maintenance of an accessible document control system (DCS) by the Design-Builder to provide all relevant design inputs, including a list of references to design inputs that should be used by design personnel in the design.
- Verification by the Design-Builder that the design inputs are communicated to, and accessible by, the relevant designers responsible for incorporating design inputs into the design.
- Specification of QA procedures to verify the construction surveying, property surveying, establishment of Right-of-Way markers, As-Built Plans, re-established city, county, and subdivision monuments, and Record of Survey Map.
- A defined process for tracking the design drawings through the Final Design Documents, including the RFC Documents.
- Geotechnical Special Inspection Plan (GSIP).

The QMP shall describe procedures to require that a written certification is signed by the Design QA Manager verifying that all quality procedures have been completed in accordance with the QMP prior to being sent to WSDOT for design review.

2.28.3.2 WSDOT DESIGN REVIEW

The QMP shall define the timing, content, and format of all design reviews and shall incorporate all of the requirements of the Technical Requirements. Unless otherwise stated in the Contract, the Design-BUILDER shall provide a 14 Calendar Day review period for WSDOT Review and Comment on all design submittals. WSDOT reserves the right to extend the review time by up to seven Calendar Days for submittals that are received between November 15th and January 1st, for submittals with overlapping review periods which are being reviewed by the same discipline team, and for submittals that contain over 250 pages of plans or calculations.

The Design-BUILDER shall address all comments made by WSDOT in each submittal, and shall include comment resolutions in subsequent submittals.

The Design-BUILDER shall schedule and maintain minutes of all resolution meetings with the appropriate WSDOT staff to document and resolve the Design-BUILDER's responses to the comments. It is intended that all comments will be resolved at these meetings. If agreement is not reached on any specific comment, it shall be resolved as described in the QMP.

2.28.3.3 DESIGN TASK FORCES AND OVER-THE-SHOULDER REVIEWS

The QMP shall also include processes and procedures for how regular (weekly) scheduled task force meetings between WSDOT and the Design-BUILDER will be used to support quality goals. These meetings, combined with over-the-shoulder reviews, shall be an integral part of the process to discuss and resolve design issues outside of the formal review process.

The QMP shall define how over-the-shoulder reviews with WSDOT during the course of the development of each design package will be included. The over-the-shoulder reviews are not Hold Points that restrict the progress of design. They are reviews of the design as it progresses, and opportunities for WSDOT to provide comments and feedback on the design.

2.28.3.4 RELEASED FOR CONSTRUCTION (RFC) DOCUMENT REVIEW

At a minimum, the Design-BUILDER shall provide a preliminary and a final submittal of all plans, Technical Specifications, and Working Drawings, and resolve all comments prior to being Released for Construction. Special Provisions shall not be included by reference, but shall have their full text included in the final design submittal and Released for Construction documents. Special Provisions that are not part of the Work shall not be included in the Released for Construction documents. Any deviation from the Mandatory Standards and these Technical Requirements shall be approved by WSDOT prior to a submittal being Released for Construction.

Construction shall not proceed on any element of Work until the relevant submittal is stamped "Released for Construction" by the Design QA Manager, and all required government and private approvals have been obtained by the Design-BUILDER.

Comment [Jlb18]: Frank Young: On DB projects, if the taskforce process is used correctly and participated by appropriately experienced people from WSDOT, the review should not take so long. One week should be adequate. WSDOT should staff the project to not slow the review of submittals down over the holidays. If the project schedule depicted work at a certain time, then WSDOT should staff accordingly.

Response: no change- WSDOT not willing to change review time in contract at this time. However, it was agreed that this should be a maximum in practice for only particularly complex or difficult reviews.

Comment [Jlb19]: Julia Mizuhata: The 14 Calendar Days indicated doesn't preclude a review being completed sooner. Depending on the complexity of the project and design, WSDOT utilizes people from various disciplines and locations. A 14 Calendar Day or 2 week period is to ensure that the submittals can be distributed and all comments gathered and incorporated.

Comment [Jlb20]: Randall Mawdsley: This section was put in due to reviews outside of the co-located Design-Build office. I do not believe the WSDOT HQ Design office would consider changing this language. Furthermore, 14 days has been the standard review period process since the start of the current Design-Build process; which has been ongoing for ten years now.

Comment [Jlb21]: Frank Young: Task forces are only successful if WSDOT empowers their representatives that attend the meeting. If they can't speak for WSDOT – they are a waste of taskforce time.

Comment [Jlb22]: Julia Mizuhata: No disagreement that the appropriate representatives should be at the task force meetings. However, if empower is in reference to the ability to approve changes, the process needs to follow the requirements of 1-04.4, Changes, and WSDOT has to go through appropriate approval protocols. This can include the Region, HQ Construction and FHWA dependent on the project funding and type of change involved.

Comment [Jlb23]: Randall Mawdsley: Though a point well taken the WSDOT Project Engineer is responsible for this empowerment and they will manage their workforce as they see fit.

Response: No language change, per discussion, will consider issue as part of contract administration manual and procedures.

2.28.3.4.1 Technical Specifications

The Standard Specifications are supplemented and modified by the Amendments to the Standard Specifications, the Special Provisions, and these Technical Requirements. The Design-Builder shall develop any Project Specifications required to address Work not covered by the Standard Specifications, Amendments to the Standard Specifications, Special Provisions, or these Technical Requirements. If a Project Specification is determined by WSDOT, in its sole discretion, to be a change to the Standard Specifications, Amendments to the Standard Specifications, or Special Provisions; the Design-Builder shall submit a Design-Builder Initiated Change in accordance with Section 1-04.4 of the General Provisions.

2.28.3.4.2 Preliminary Design Submittal

The intent of the Preliminary Design Submittal is to provide a formal opportunity for WSDOT, the Design-Builder, various design team disciplines, and other approved Project stakeholders to review the construction documents in order to ensure that the design is progressing appropriately and proceeding in the right direction; the plans reflect Design-Builder requirements for construction; design features are coordinated; and there are no fatal flaws within a given discipline or between disciplines. The minimum contents of the Preliminary Design Submittal for each discipline shall be as specified in these Technical Requirements and as mutually agreed upon by members of the applicable task force; or by agreement between WSDOT and the Design-Builder if no specific task force applies.

2.28.3.4.3 Final Design Submittal

The Final Design Submittal shall be prepared when the design for a given element or area is 100 percent complete. The Final Design Submittal shall include plan sheets, specifications, technical memos, reports, calculations, and other pertinent data, as applicable. As a result of the on-going discussion and resolution of design and construction issues through the regularly-scheduled task force meetings and over-the-shoulder reviews, it is anticipated that there will be very few revisions or changes at this stage.

The Final Design Submittal shall include the Technical Specifications, which include all Amendments to the Standard Specifications, Special Provisions, Technical Requirements, and Project Specifications, necessary to construct the Work represented in the submittal. Following resolution of all comments, the Final Design Submittal may proceed through the written certification process described below in preparation for being Released for Construction.

2.28.3.4.4 Released for Construction (RFC) Documents

The QMP shall describe how the Design-Builder will ensure that the RFC Documents reflect all QA, QC, and design reviews required by the QMP and the Contract. The QMP shall also describe the written certification process to be used to verify to WSDOT that all QA procedures have been completed to ensure that all review comments have been incorporated as agreed to during the comment resolution process between WSDOT, any affected municipalities, and the Design-Builder, and that the documents are ready to be Released for Construction.

Each sheet of the plan set and the cover of each set of Technical Specifications in the RFC Documents shall carry the Professional Engineer's stamp and signature, and shall be stamped "Released for Construction" and initialed and dated by the Design QA Manager.

The cover of the Amendments to the Standard Specifications does not need to carry a Professional Engineer's stamp.

Once plans and Technical Specifications have been Released for Construction, the Design-Builder shall provide WSDOT with six hard copies and electronic files of all RFC Documents. Electronic files shall be provided in both MicroStation and PDF formats, shall be in accordance with the *WSDOT Electronic Engineering Data Standards* (Appendix D), and shall be submitted on CDROM or DVD. The electronic drawing files shall include copies of all sheet and reference files used in the RFC Documents.

Prior to submittal, electronic files for all RFC Documents, except the MOT Plans, shall be checked by the Design-Builder to ensure that they conform to the *WSDOT Plans Preparation Manual* (Appendix D) file naming and drawing symbology (e.g., level contents, and line and text symbology). The drawing symbology and file naming for each electronic drawing file shall meet or exceed a minimum conformance level of 90 percent, and the average conformance level for all drawing files shall be 95 percent or greater. MOT Plans are not required to meet the conformance level criteria. The Design-Builder shall provide WSDOT with a Microsoft Excel (version 2010) spreadsheet for each RFC Submittal containing the file name and the corresponding conformance level for every file that is part of the submittal. Certain files provided to the Design-Builder by WSDOT, such as base mapping or vicinity maps, may be excluded from the conformance level requirement. The Design-Builder shall obtain written confirmation from WSDOT as to which files are exempt from compliance with the *WSDOT Plans Preparation Manual* (Appendix D).

Construction shall not proceed on any element of Work until the relevant submittal is stamped "Released for Construction" by the Design QA Manager, and all required government and private approvals have been obtained by the Design-Builder.

2.28.3.5 QUALITY ASSURANCE AND QUALITY CONTROL OF DESIGN CHANGES

The QMP shall describe the process for implementing design changes, including field changes, shown on the Design Documents and RFC Documents. The design changes shall be subject to QA and QC measures and procedures, commensurate with those applied to the original design or that portion of the Project under consideration for change.

The QMP shall explain how changes will be identified as a Minor Change or Significant Revision and then identify how Significant Revisions to Design Documents and RFC Documents will be incorporated, stamped and reviewed before being re-released.

The QMP shall also address and clearly define the number of changes to a drawing that will result in a drawing revision, and the time frame for the release of the updated drawing. Each drawing revision shall be assigned a number. The revision number shall be assigned sequentially, with each change in a document or plan sheet identified by the revision number. The assigned number shall be located both at the location of the change on the sheet and in the revision block of the document with an explanation of the change.

2.28.3.6 WORKING DRAWINGS

The QMP shall describe the personnel assigned to Working Drawing review and approval, the procedures for documenting reviews and obtaining approvals, the process for implementing corrective actions, the procedures for auditing and checking compliance to Working Drawings, and the distribution to WSDOT for Review and Comment. The Design-Builder shall include in their QMP a complete listing of working drawings that are required to be signed and sealed, with which WSDOT will concur prior to QMP approval.

Comment [j1b24]: Teresa Eckard: SR520 FB&L RFP 2.28.3.6.... This section needs to define which shop and false-work drawings are to require seal and signature (if it is all then it should say that...., right now it is silent). A simple solution is to make all working drawings sealed and signed by the EOR.

Comment [j1b25]: Randall Mawdsley: Agreed

Response: Randy – add language (after 1st para) that QMP shall include list of working drawings that will be sealed and signed

The Design-Builder shall check and verify that Working Drawings are in compliance with the Technical Specifications and Released for Construction drawings.

The Design-Builder shall submit all Working Drawings to the WSDOT Engineer. The submittal shall include one hard copy and one electronic copy. If the WSDOT Engineer offers any comments, they will be submitted to the Design-Builder in accordance with this Section.

Prior to submittal to WSDOT, the Design-Builder shall mark the Working Drawings in the lower right corner with one of the two following indicators:

- APP'D (Approved, no corrections required); and
- AAN (Approved-As-Noted, minor corrections only).

The Design-Builder shall not place written questions or comments on Approved-As-Noted sheets; and corrections shall be clearly noted.

The Design-Builder shall certify that the information on the Working Drawing meets the requirements of the Contract and is in conformance with Released for Construction documents.

The Design-Builder shall provide a 14 Calendar Day review period for WSDOT Review and Comment on all Working Drawings submittals. WSDOT reserves the right to extend the review time by up to seven Calendar Days for submittals that are received between November 15th and January 1st. The Design-Builder shall resolve all comments prior to implementation.

2.28.3.7 AS-BUILT DOCUMENTATION

The QMP shall describe how the Design-Builder will ensure that the As-Built Documents meet the requirements of the Contract and accurately represent the as-constructed conditions in the field; and how the As-Built Documents are updated continuously and made available for periodic reviews conducted by WSDOT or their designees.

2.28.3.8 DOCUMENT AND DATA CONTROL

The QMP shall describe the procedures to be used in managing and documenting all Project files. The Design-Builder shall establish and maintain its own DCS, in accordance with Section 2.1, to store and record hard copies and electronic records including, but not limited to, all correspondence, meeting minutes, design inputs, drawings, progress reports, technical reports, specifications, Contract Documents, submittals, calculations, test results, inspection reports, NCRs, administrative documents, and other documents generated under the Contract. The Design-Builder shall ensure that its DCS is compatible with the DCS used by WSDOT.

The QMP shall describe the methods by which all documents issued and received by the Design-Builder will contain a unique serialization, date issued or received, Project name, Contract name, Contract number, specific subject or content of the correspondence, name of the sender or recipient, and reference information to which the correspondence relates to, such as prior correspondence. The Design-Builder shall maintain separate incoming and outgoing correspondence logs.

All documents shall be maintained by the Design-Builder for the duration of the Contract, and shall be organized, indexed, and delivered to WSDOT upon Final Acceptance unless required to be delivered earlier pursuant to the Contract; or within seven Calendar Days of

Comment [Jlb26]: Frank Young: RFC drawing review by WSDOTs should be a quick process. If the TFs worked well together, this should just be a formality. Five calendar days is plenty time for the WSDOT rep to check to make sure that their comments were incorporated.

Comment [Jlb27]: Julia Mizuhata: Recommend keeping this at 14 Calendar Days. As stated for 2.28.3.2, the time line indicated doesn't preclude the team from providing the response sooner. Responses may be required from multiple people/SMEs. Also Calendar Days doesn't equate to business days.

Comment [Jlb28]: Randall Mawdsley: Again this is a standard review period from the inception of WSDOT's current Design-Build process. I personally have seen upwards of 50 to 100 changes between "Final" review and "RFC." With that said cutting the time frame might be admissible if "Final" was really Final."

Response: No change

receipt of request from WSDOT, even if the documents are incomplete. The documents shall include all test documentation, including those prepared by WSDOT.

2.28.3.8.1 Document and Data Approval and Issuance

The QMP shall include a requirement that all deliverables include a signed and dated certification by the originator of the deliverable, and that the deliverable is complete and meets the Contract requirements.

2.28.3.8.2 Document and Data Changes

The QMP shall include a requirement that any changes to documents provided to WSDOT are in a format that shows the changes clearly, and in a method that is easily trackable (e.g., documents use the redline/strikeout method).

2.28.3.9 DESIGN VALIDATION

The QMP shall describe all verification, validation, monitoring, inspection, and activities to be carried out for the purposes of demonstrating that the Work is acceptable.

2.28.4 MATERIALS QUALITY ASSURANCE AND QUALITY CONTROL PLAN REQUIREMENTS

2.28.4.1 GENERAL

The QMP shall specify all aspects of the Materials QA and QC Plan. At a minimum, the Materials QA and QC Plan shall include the items described in this Section to verify that all materials conform to the Contract requirements. The Materials QA and QC shall be separate functions performed by separate personnel who have no affiliation to each other or to the same organization.

2.28.4.2 DESIGN-BUILDER RESPONSIBILITIES

The Design-Builder shall be responsible for the quality of construction and materials incorporated into the Project. The Design-Builder's QC measures are intended to ensure that operational techniques and activities provide material of acceptable quality.

The Materials QA organization shall be responsible for the acceptance of all materials and workmanship incorporated into the Project. The Materials QA organization shall also perform sampling and testing, determine acceptance or rejection of the materials, and implement a tracking system to monitor nonconforming materials and disposition of nonconforming materials, according to the Contract.

2.28.4.3 MATERIALS TESTING QUALITY PROGRAM

The Design-Builder shall monitor and measure the characteristics of all Work activities to verify that all Project requirements have been met. This monitoring and measurement shall be carried out at appropriate stages of construction in accordance with the planned Work and minimum frequencies for sampling and testing as described in Table 6, Section 2.25.12.

The Design-Builder's QA test data shall be used for acceptance, provided it can be statistically verified by WSDOT's QV test data, except as noted in this Section. In the event of discrepancies between WSDOT's and the Design-Builder's test data, the Quality

Comment [jlb29]: Phil Larson: This sounds like geotech. Should be resolved in 2.6 This gives very little direction.

Comment [jlb30]: Randall Mawdsley: This section has read this way since the beginning of this template and I've never heard of a problem with it prior to now. It may refer to section 2.6 but. I'm quite that isn't the only place where design validation takes place.

Response: No Change per discussion

Assurance Team will attempt to resolve them prior to Work. If a resolution cannot be reached, then WSDOT's QV test results will be used for acceptance.

The levels of quality management provided by the Design-Builder and WSDOT where testing is being used for acceptance are:

Quality Control: The Design-Builder shall be responsible for QC, which is defined as activities performed by the Design-Builder, the producer, or the manufacturer to ensure that a product is of uniform quality, meeting the Contract requirements. Components of QC may include inspecting and obtaining material certifications, materials handling, construction procedures, calibration and maintenance of equipment, production process controls, and any sampling, testing, or re-testing conducted for these purposes.

Quality Assurance: The Construction QA Manager shall be responsible for the materials sampling, testing, and processes for QA. Testing for QA includes all planned (e.g., audits and assessments) and systematic actions necessary to ensure that all materials incorporated into the Work meet the Contract requirements for the material being used, and will perform satisfactorily for the purposes intended. All materials sampling and testing for QA will be performed by a statistically valid, random sampling method using testing methods and minimum frequencies defined in this Section, the *WSDOT Construction Manual* (Appendix D), the *WSDOT Materials Manual* (Appendix D), and the Contract.

Quality Verification: WSDOT or its agent will perform an independent materials QV to validate the Design-Builder's sampling and testing QA program. All verification sampling and testing will be performed by a statistically valid, random sampling method using testing methods defined in the *WSDOT Construction Manual* (Appendix D), the *WSDOT Materials Manual* (Appendix D), and the Contract.

WSDOT Acceptance Testing: WSDOT will perform Inspection and Acceptance Testing in accordance with Section 2.25.

Independent Assurance (IA): The IA is an independent verification performed by WSDOT which includes an observation of sampling and testing procedures, a review of the qualifications of the tester, and a verification of the testing equipment used to perform acceptance testing activities. The IA will validate both the Design-Builder's QA processes and WSDOT's QV processes. The IA may include auditing of acceptance testing records, observing the tests being performed by the Design-Builder's technicians, or taking split samples with the Design-Builder on a random basis for verifying the Design-Builder's testing equipment. WSDOT will enter findings of all IA observations into the Construction Audit Tracking Systems (CATS). Any deficiency will result in a NCI. The Design-Builder shall take corrective action immediately for any noted deficiencies.

Quality Assessment: WSDOT will perform non-scheduled quality assessments of the Design-Builder's Work, including sampling, testing, and documentation reviews.

2.28.4.4 MATERIALS TESTING LABORATORY

All QA testing that will be used for acceptance of materials shall be performed by a laboratory approved by WSDOT. The laboratory shall report directly to the Construction QA Manager. The Design-Builder or a subcontractor shall employ the laboratory personnel. The materials testing laboratory that is used for QA testing shall not perform QC testing, and shall not be owned, operated, equipped, or staffed by material suppliers. The laboratory shall meet the requirements of AASHTO R-18 for qualified testers and calibrated/verified equipment, and be able to accomplish the testing according to the test procedure they are performing.

The Design-Builder's laboratory shall develop and maintain a Laboratory Quality Systems Manual. The Manual shall include the following:

- Staff qualifications, position descriptions, and the qualification process;
- Listing of test procedures approved for performance throughout the Project;
- Equipment including verification, calibration, recall procedures, and inventory;
- Test reports, worksheet, summary logs, and forms;
- Sample management procedures;
- Diagnostic and Corrective Action Reports; and
- Quality systems review.

WSDOT will perform an on-site evaluation of the facility, in accordance with WSDOT QC 3, Quality Systems Laboratory Review in the *WSDOT Materials Manual* (Appendix D), to ensure all Work is being performed according to the Contract. The evaluation will include audit and inspection functions, review of training, equipment calibration, verification of records, and observance of testers as they perform the test procedures. For laboratories located outside of Washington State, or laboratories performing only minor testing, WSDOT may use the AASHTO Accreditation Program, or another state's Department of Transportation to inspect the laboratory.

The Design-Builder shall request the WSDOT inspection a minimum of 14 Calendar Days prior to the start of construction. Together with the request, the Design-Builder shall submit a copy of the Laboratory Quality Systems Manual, and a list of the testing procedures that the laboratory shall perform throughout the Project. The laboratory shall be properly equipped, staffed, and fully operational at the time of WSDOT's inspection and for the duration of its use on the Project.

WSDOT will advise the Design-Builder in writing of any deficiencies noted during the inspection, and the Design-Builder shall take immediate action to correct them. Work requiring laboratory acceptance will not proceed until the laboratory and its staff has been inspected and has received written approval from the WSDOT Engineer.

The test equipment for the following test procedure shall be as shown below and in the Field Operation Procedure in accordance with the *WSDOT Materials Manual* (Appendix D) so that proper correlation between the QA and QV test results may be established.

- WSDOT Field Operation Procedure for AASHTO T-310 In-place Densities by Nuclear Method (Troxler 3430, or 3440 Series Moisture/Density Gauge).

2.28.4.5 MATERIALS TESTING FREQUENCIES AND RANDOM SAMPLING

The Design-Builder shall perform field and laboratory sampling and testing as specified in the Standard Specifications and the *WSDOT Materials Manual* (Appendix D) to control these processes. Sampling and testing shall be performed by qualified testing personnel described in this Section. Representative samples shall be randomly obtained by the Design-Builder at specified frequencies as shown in Table 6, Section 2.25.12. The Design-Builder shall furnish copies of all test results to WSDOT within 24 hours of completion of the test or the next business day. For concrete cylinders, the test results shall be furnished within 24 hours after cylinder break.

WSDOT or its agent will perform independent materials QV sampling and testing to validate the Design-Builder's sampling and testing QA program. Typically, the testing rate will be one verification test to every five of the Design-Builder's acceptance tests. During production startup, the QV testing will be performed at the same frequency as the Design-Builder's QA program for the first five samples, to establish a statistical base for verification and acceptance. If at any time the QA and QV statistical base is not statistically validated, the QV testing may increase until the F and t variances are considered under control. When QV testing reaches 25 samples, and the QA and QV testing can be statistically validated, the frequency of the QV tests may be reduced to 1 in 20. If at any time the QA and QV testing results have wide variances or cannot be validated, the QV testing frequency shall be increased to 1 in 5 until 25 samples are reached again with satisfactory statistical validation.

If the Design-Builder elects to take extra samples, the QV sampling frequency will continue to be based on the frequency described in Table 6, Section 2.25.12.

For HMA, WSDOT will conduct the acceptance testing for asphalt treated base and HMA aggregate, mixture, in-place density, and cyclic density at the frequency described in Table 6, Section 2.25.12.

Materials that require less than five tests for acceptance, or that have less than five sublots, will require WSDOT and the QA personnel to test at the same frequency. Refer to Chapter 9 of the *WSDOT Construction Manual* (Appendix D) for testing requirements. For all materials that are not addressed by WSDOT standards, the material testing specifications, testing procedures, and frequencies will be determined by the Quality Assurance Team with the Engineer of Record's concurrence.

Small quantities of materials can be accepted without sampling and testing when the quantity of materials proposed for use by the Design-Builder are less than the minimum sampling and testing frequencies. Structural concrete will not be considered as a small quantity. The Construction QA Manager shall follow the procedure for acceptance of small quantities described in this Section.

2.28.4.6 TESTING PLAN

All acceptance and verification sampling and testing shall be randomly obtained, at the location and frequency stated in the Contract. The Design-Builder shall provide a Testing Plan for each material to WSDOT. The Testing Plan shall identify the frequency, location for testing, test procedures, attributes to test, material acceptance requirements, Sampling Plan developed using WSDOT Test Method T 716 Method of Random Sampling, or other random number generator, and the estimated Project quantity. The Testing Plan shall be submitted prior to the beginning of production or placement of the material. The QMP shall include a method for notifying the QA organization of the quantity of material produced, placed, or delivered to the Project, so that the testing effort can be current.

2.28.4.7 MATERIALS QUALITY ANALYSIS PROGRAM

The Design-Builder's QA sampling and testing results shall be used for acceptance provided that they are validated by WSDOT's QV sampling and testing.

Both the Design-Builder's QA and WSDOT's QV test results shall be recorded in the statistical analysis of materials software that will be provided by WSDOT. This software shall be used to statistically evaluate the QA test data against the QV test data to determine the acceptability of the QA test data. This evaluation will be performed by using the F and t Test analysis tool. This evaluation will be performed on all test results for the total

quantity of material placed for a single material type such as gravel backfill for walls, crushed surfacing base course, or gravel borrow. There needs to be at least three QA and three QV test results to perform the F and t analysis.

The Construction QA Manager shall be responsible for performing this evaluation. Any test data that is found to be outside the normal F and t distribution shall be reviewed by the Quality Assurance Team, and a determination shall be made as to why the test data is outside the normal distribution.

The Quality Assurance Team shall identify the cause of discrepancies in the test results and generate a report defining the problems, the cause of the problems, and the solutions to prevent a recurrence. At a minimum, the review shall include the following actions:

- A check of test data, calculations, and results;
- An observation of the sampling and testing by the IA Inspector; and
- A check of test equipment by the IA Inspector.

The investigation and resolution of the discrepancy shall be documented by the Quality Assurance Team in the Quality Task Force Meeting minutes within two weeks of the noted discrepancy, unless IA investigation is delayed due to scheduling. If the Quality Assurance Team fails to identify the cause of discrepancies in the test results, then WSDOT's QV test results will be used for acceptance.

Comment [MR31]: Added section from RFP chapter 2.25.5.2. Furthermore, added caveat about IA scheduling due to the scheduling impact on an extremely limited number of IA's.

2.28.4.8 MATERIALS DOCUMENTATION REVIEW

The Design-Builder shall schedule regular documentation reviews to ensure that all materials documentation and certifications are complete prior to the material being installed on the Project.

WSDOT will perform periodic formal materials documentation reviews at approximately 25 percent and 75 percent completion of construction. Items to be reviewed will be randomly selected by WSDOT. These reviews are intended to ensure the Design-Builder is maintaining all necessary materials documentation and records. A final review will be performed at the completion of the Project to ensure that all materials documentation is correct. A separate materials review may be performed by the State Materials Laboratory.

In addition to the formal reviews, WSDOT on-site personnel will perform periodic materials documentation checks. Examples of these checks include materials approval, materials acceptance, and field verification that the approved material was placed.

Comment [Jlb32]: Frank Young: WSDOT shall provide necessary notice to Quality Manager to allow for 'joint' inspection.

Comment [Jlb33]: Frank and I discussed his comment here and he was interpreting this as part of day to day operation where it is truly more region or program related review that is being specified. Furthermore, when necessary WSDOT in discussion with the program or region has augmented this scheduling process to capture needed feedback as was done on all the SR 520 Design-Build projects.

Response: No Change needed.

2.28.5 CONSTRUCTION QUALITY ASSURANCE AND QUALITY CONTROL PLAN REQUIREMENTS

2.28.5.1 GENERAL

The QMP shall include a program for construction inspections, examinations, measurements, and tests of materials or elements for each Work operation, where appropriate, to verify quality. The requirement for these inspections is not limited to those required for quality testing purposes.

The QMP shall specify all aspects of QA and QC for construction. At a minimum, the QMP shall include the following items to verify that all construction activities conform to the Contract requirements:

- Project progress schedule;

- Submittal schedule;
- Design schedule, acknowledging documents, and packages that will be submitted for review;
- Inspection requirements;
- Instrumentation and survey monitoring for verification of the performance of the Project geotechnical features;
- Specific documentation for QA and QC activities, including control charts; and
- WSDOT requirements for corrective action and Corrective Action Plans when QC or acceptance QA criteria are not met.

2.28.5.2 WEEKLY SCHEDULING NOTICE TO WSDOT

The Design-Builder shall notify WSDOT in writing before the close of business on Thursday of each week of planned construction activities, including fabrication, and shall describe the anticipated construction activities for the following week (Sunday through Saturday) to allow WSDOT to schedule its resources. For activities occurring further than 60 miles from the Project, the Design-Builder shall give WSDOT notification at least 14 Calendar Days prior to the planned Work.

2.28.5.3 COORDINATION AND NOTIFICATION

The Construction QA Manager shall designate a primary point of contact for notifications of inspections at Hold Points. An alternate contact may be designated to function in the primary contact's absence. WSDOT will designate one person to handle responses to the Design-Builder for written reports or releases for Hold Points.

The time necessary to respond to the notification for inspection at Hold Points shall be included in the QMP, and mutually agreed to by the Design-Builder and WSDOT.

2.28.5.4 HOLD POINTS

Hold Points shall be identified in the construction process where critical characteristics are to be measured and maintained, and at points where it is impractical to determine the adequacy of either materials or workmanship once Work proceeds past this point. Pre-activity meetings shall be included in the Design-Builder's QMP as Hold Points. Hold Points shall be established where required QA inspection is mandatory. The Design-Builder shall provide WSDOT with three Calendar Days' notice of each Hold Point so that WSDOT, at its discretion, can observe or visually examine a specific Work operation or test. Work shall not proceed until inspection is performed and a written release is granted by the Design-Builder's QA organization.

The Engineer of Record and the Designer of Record shall submit specific Hold Points with the RFC Documents.

At a minimum, the Construction QA Manager shall establish Hold Points at the stages listed below. The QMP shall identify any additional Hold Points necessary to certify compliance. The following Hold Points are not intended to limit or diminish the Design-Builder's responsibility to inspect all construction Work.

Utility Relocations

- Prior to any relocation of existing utilities.

Comment [jlb34]: Frank Young: Change to "For activities outside of Washington State and 60 miles from the Project,...."

Comment [jlb35]: Julia Mizuhata: Recommend leaving as is. WSDOT staff needs the time to be able to find and set up lodging, and obtain other approvals as needed. W/in state has included Bellevue to Aberdeen; can include Western to Eastern Wa. etc.

Comment [jlb36]: Randall Mawdsley: I agree with Julia.

Response: No change

- Prior to backfill of utility relocations and as required by the Utility Owner's permit.

Temporary Erosion and Sediment Control (TESC)

- After installation of high visibility fencing around Environmentally Sensitive Areas, clearing limits, travel corridors, and stockpile sites.
- After completion of placement of TESC devices, and prior to any construction operations.
- Prior to any TESC dewatering operations.

Embankments (includes backfill behind walls and abutments)

- After completion of drainage embankment and utility installations, and before backfill.
- At intervals of embankment construction every 5 vertical feet.

Structures (bridge, abutment and retaining walls, noise walls, curtain walls, and end walls)

- At completion of bridge embankment or excavation, and before the start of structure foundation.
- Before saw-cutting of concrete occurs.
- Before pile driving or drilled shaft operations.
- After completion of the first piling driven at each structure support, and at the completion of each pile group, for each structure support.
- After completion of each drilled shaft along with cross hole sonic logging testing, and at the completion of each drilled shaft group, for each structure support.
- Before concrete placement of any subsurface element including concrete for cast in place piles and drilled shafts.
- After installation of grout pad or anchor bolts prior to setting bearing or girder.
- After girder and diaphragm placement.
- Before concrete placement of bridge deck, approach slabs, diaphragms, moment slabs, traffic barrier, and parapet walls (with formwork, inserts, and reinforcement in place).
- After completion of excavation and prior to box culvert construction.
- Before concrete placement of cast-in-place box culverts with formwork, inserts, and reinforcement in place.
- Prior to installation of post tensioning strands or bars.
- Prior to jacking operations for post tensioning with a hydraulic jack on the job Site.
- After completion of bridge deck grinding, overlay removal, and deck repair.

Retaining Wall

- After completion of soil foundation and before the placement of the leveling pad of a structural earth wall or the foundation of any other type of retaining wall.

- Panel tolerances after completion of placement of panels for each structural earth wall prior to beginning of coping placement.
- Before concrete placement of cast-in-place retaining walls with formwork, inserts, and reinforcement in place.
- Before installation of any soldier pile, tieback, or ground anchor wall; and before/after verification tests.

Noise Wall

- After completion of soil foundation and before the placement of footing formwork.
- For pre-cast panels, after the placement of ten panels.

Drainage

- After placement of pipe or box culvert and prior to backfilling.
- After installation and placement of bands or gaskets and prior to backfilling.
- After placement of catch basins and manholes and prior to backfilling.
- After completion of drainage systems behind walls and before backfill of walls.

Stormwater Facility (including bioswales)

- After layout of stormwater facility.
- After excavation and prior to installation of drainage structures.
- Prior to operation of facility.

In-Water Work

- Before conducting any in-water construction activities and prior to operating any equipment below the ordinary high water mark. This includes Work in wetlands, streams, or mitigation Sites.
- Culvert replacement, removal, and extensions.
- Prior to capturing and removing fish from the job Site at any area that includes water bypass, in-water coffer dam, and any water area likely to be disturbed.
- Prior to installing riprap or other bank stabilization.
- Prior to reintroducing a stream into a newly constructed or previously dewatered channel.

Subgrade, Surfacing, and Pavement

- After completion of subgrade and prior to surfacing placement.
- After completion of surfacing placement and prior to asphalt treated base, HMA, and reinforcement for approach slab placement.

Signs

- After signs are staked in the field and prior to installation.

Local Jurisdiction

- Prior to any Work within local jurisdiction Right-of-Way.

Electrical, ITS, and Illumination

- Prior to removal of existing ITS equipment, and after new or temporary ITS equipment is in place and operational, in accordance with Section 2.18.
- Prior to removal of existing CCTV cameras, and after new CCTV cameras are in place and operational.
- As required by WAC 296-46B-010, inspection of electrical and traffic management systems that will be performed by WSDOT.
- Prior to removal of existing illumination, and after new or temporary illumination is in place or operational, in accordance with Section 2.16.

Landscaping and Aesthetics

- After preparation of the planting area and prior to planting any plant material.

2.28.5.5 TRAFFIC ELECTRICAL INSPECTION

The Design-Builder shall inspect all electrical and ITS systems. In addition, WSDOT will inspect all electrical and ITS systems for code compliance, functionality, and acceptance as required by WAC 296-46B-010. Refer to Section 2.18.

2.28.5.6 PERFORMANCE VERIFICATION OF PROJECT GEOTECHNICAL ELEMENTS/FEATURES

The QMP shall include a GSIP in accordance with Section 2.6.

2.28.5.7 WSDOT OVERSIGHT

WSDOT will periodically audit the field performance of the Design-Builder's QA staff, testing frequencies, and acceptance testing results. WSDOT will conduct oversight inspection audits to verify the adequacy of the Design-Builder's inspection activities and testing procedures.

2.28.5.8 QUALITY ASSURANCE INSPECTION

The QMP shall contain inspection plans for each construction Work item included in the Project, whether performed by the Design-Builder, a subcontractor, or a vendor. Work items may be definable features or items of Work defined by the Standard Specifications.

2.28.5.9 INSPECTION GUIDELINES

During the design of the Project, the Design-Builder shall review each item of Work to determine which significant characteristics of the items need to be monitored during the construction phase, to ensure that the completed Project will function in accordance with the design intent over its expected lifetime. The inspection guidelines shall include the appropriate criteria, tests, and inspection requirements identified in the Standard Specifications, the *WSDOT Construction Manual* (Appendix D), and the *WSDOT Materials Manual* (Appendix D). The inspection plan shall address the following elements within each item of Work:

- Identification - Work items included in the inspection plan.
- Characteristics - What characteristics of the item will be inspected?

- Acceptance Criteria - Directly or by reference, the Design-Builder shall provide sufficient information for the inspector to use to determine if the item or activity is conforming or nonconforming. Maximum use of checklists shall be made for this purpose.

Inspections shall be performed during all phases of the Project from start to Completion in order to ensure that the Work meets and is being performed in accordance with the Contract, RFC Documents, approved submittals, and any requirements of local jurisdictions.

The Design-Builder shall conduct an examination of the quality of workmanship to confirm that all Work is being performed in accordance with the RFC Documents, and any understandings reached at the pre-activity meeting for that item of Work.

The Design-Builder shall conduct appropriate follow-up inspections, and sampling and testing of materials as each item of Work progresses, to assure consistency in workmanship, compliance with Contract requirements, Design Documents, and RFC Documents; and to assure satisfactory performance of the Work in service.

2.28.5.10 INSPECTION DOCUMENTATION

Each of the QA Inspectors shall summarize their daily inspections, tests, and material sampling activities in a daily report. The QA Inspectors shall use WSDOT's Inspectors Daily Report, or a similar form unless otherwise approved by WSDOT Engineer, to maintain a written record of inspection results, and shall provide copies of the daily reports to WSDOT the next business day. The Inspector's Daily Reports shall include the following key points of record:

- Work performed by the Design-Builder, subcontractor, or material supplier;
- Weather conditions;
- Inspections performed, the timing of the inspection, and their results, including any corrective actions taken;
- Materials used, the manufacturer or source, product identity, and quantities;
- Communications;
- Temporary work such as shoring and falsework;
- Type, location, and results of all tests performed;
- Delays encountered;
- Type of traffic control setup in accordance with approved MOT plans, and any inspection and corrective action taken by the Design-Builder;
- Any safety-related problems and corrective action taken;
- All nonconforming Work and the corrective action taken;
- A copy of any checklist used for the inspection; and
- The Inspector's signature.

2.28.5.11 CONSTRUCTION INSPECTION FORMS AND CHECKLISTS

The Design-Builder's QMP shall include construction inspection forms and checklists for all anticipated construction operations and processes, which shall be used by the Design-

Comment [Jlb37]: Julia Mizuhata: General comment. During the course of the project, WSDOT is audited by State Auditors office, WSDOT auditors, and if federally funded, by FHWA. In regards to audits addressing finance, i.e. amounts paid the DB, we have to be able to demonstrate through some means of documentation that what we've approved for payment has been performed during the period in question. Would like to initiate dialogue on how best to address this. This may be something that needs to go hand-in-hand w/chapter 1 schedule requirements.

Comment [Jlb38]: Teresa Eckard: SR520 FB&L). RFP 2.28.5.10, The IDR's need to include information in regards to equipment records, labor, etc. and needs to specify to use the WSDOT standard IDR form (don't say "or similar form"), and the QA inspectors are required to fill out this information every day and these records may be used as the basis of claim resolution on the part of both parties.

Comment [Jlb39]: Randall Mawdsley: Teresa the FB & L crew has fought this aspect throughout their contract. Mandating the use of the WSDOT standard IDR would have merit. It would also give WSDOT another tool to enforce the contract requirements.

Response: per markups
Change in meeting – describe information needed in list

Comment [Jlb40]: Teresa Eckard: SR520 FB&L RFP 2.28.5.10, The contract also needs to require QA inspection to inspection temporary work such as shoring, false-work, etc. and include description of this work in the QA IDR's each day.

Comment [Jlb41]: Randall Mawdsley: I would agree with this.

Response: per markups

Comment [ET42]: Undo change

Comment [ET43]: See change in meeting
Comment 39

Comment [Jlb44]: Julia Mizuhata: When the DB elects to provide a similar form, following the key points of records, this can result in information that's required on Contract's that have federal funding and DBE requirements to go unrecorded. In addition to the work performed, need to add "Identify Subcontractor or Lower Tier Sub, whether a DBE, and representative info". In addition, recommend adding Equipment that Sub/lower tier is operating as this issue came up in a CUF review.

Response: per markups

Builder's QA inspection personnel and other personnel responsible for QC, such as foremen and individual workers.

Construction inspection forms shall be used to document all construction Work activities required in the QMP. For each critical construction Work activity, construction inspection forms shall include activity specific checklists approved by WSDOT, prior to the start of the Work activity, and shall include photographs of specific activities after which it would be difficult to assess the Work. The checklist for each Work activity shall include the construction requirements described in the Standard Specifications or the Contract for that Work activity. At a minimum, each checklist shall address the following:

| | |
|--------------------------------|---|
| Date | |
| Time | |
| Location | > Pier or structure component > Drainage code # > Compaction Report (referenced to centerline station and subgrade elevation, etc.) |
| Type of Inspection | Completion of drainage code, final check, pre-pour check, etc. |
| Specification Requirement | List of applicable specifications for this item including applicable design plan sheet |
| Frequency | Indicated test or inspection frequency if any (Refer to Section 2.25 of the Technical Requirements for material test requirements) |
| Items Inspected | List elements or items inspected (e.g., rebar, chair placement or pipe size and type, grate box, pipe bedding, etc.) |
| Conformation to Specifications | Verify Work and materials meet the appropriate specifications |
| Deficiencies Noted | Note any deficiencies to specifications |
| Individual Notified | Individual notified for corrective action (WSDOT notified) |
| Corrective Action Noted | What corrective action is required to ensure products conform to specifications |

2.28.5.12 NONCONFORMING WORK

The construction QA staff shall identify and document all elements of Work that have not, or are believed to have not, been constructed in accordance with the approved drawings and specifications, and the reason for nonconformance in an NCR. The NCR shall be submitted to WSDOT in writing within 24 hours of identification, and a copy sent to the Design Manager or designated Engineers. See Section 2.6 for special reporting requirements for nonconforming Work related to geotechnical Work items.

2.28.5.13 NONCONFORMANCE REPORT (NCR) REMEDIATION

The Design Manager or a designated Engineer shall evaluate and determine whether a nonconformance exists; and the effect of the nonconformance on performance, safety, durability, long-term maintenance, and the life of the item of Work.

If required, documented remedial actions shall be stamped by a Professional Engineer licensed under Title 18 RCW in the State of Washington. The Design-Builder shall submit copies to WSDOT for review within 24 hours, and prior to performing the remedial action. The Construction QA Manager shall also sign the NCR stating that the remedial actions to be implemented have undergone the same level of inspection and testing as required by the original design.

If the nonconforming condition is repetitive and recurring, the Design-Builder shall develop and implement a Corrective Action Plan to eliminate the nonconforming conditions.

2.28.5.14 WORK WITH NONCONFORMANCE REPORTS (NCR)

When WSDOT does not agree with the remedial actions set forth in the NCR, WSDOT has the authority to call for removal of the nonconforming Work, or to stop Work within that area until the Corrective Action Plan has been approved by WSDOT.

2.28.5.15 NCR REPORTING

The Construction QA Manager shall maintain a log of all NCRs and Corrective Action Plans, and present them at the Quality Assurance Team Meetings. The Construction QA Manager shall number each NCR and Corrective Action Plan sequentially, and shall maintain an active summary log that provides a brief description and status of the nonconforming Work. The Construction QA Manager shall not grant acceptance for any portion of Work that has an outstanding NCR.

2.28.5.16 WSDOT NONCONFORMING ISSUES (NCIs) AND AUDIT FINDINGS

WSDOT shall retain the right to write its own NCIs and Audit Findings based on its observance of Work. NCIs and Audit Findings generated by WSDOT will be entered into the Construction Audit Tracking System, CATS program, and will require the same review and ultimate closure as NCRs generated by the Construction QA Manager.

2.28.5.17 RIGHT TO STOP WORK

If there is evidence that QMP procedures are not adequate, or if a problem is encountered during the oversight inspections or becomes evident during construction, WSDOT may, at

Comment [j1b45]: Julia Mizuhata: General Comment. 2.28.1.5.3 Other Proj. Docs indicates that the QMP shall describe how it's applied to all submittals required by the Contract to complete the Work. Sections 2.28.5.12 through 2.28.5.16, regarding NCRs/NCIs emphasizes the nonconformance of Work that effects performance, safety, durability, etc.; not necessarily closeout or docs that WSDOT needs to produce during an audit to substantiate appropriate procedures have been followed. Appears to be a disconnect when processes aren't being followed and how this should be addressed.

Response: No change at this time. Will follow up with Julia on possible clarification to the language.

Comment [j1b46]: Teresa Eckard: SR520 FB&L RFP 2.28.5.13, this section needs to clarify the format in which the EVALUATION (of the effect of a non-conformance on the durability, safety, life of the item of Work) is prepared. For example a Sealed and signed Memo by the PE. The Design-Build training manual can go into further detail as to when it makes sense that a sealed and signed memo would be needed (i.e. DB proposes a "repair procedure" to correct the Work when the DB does not build the Work according to RFC Plans, or the DB proposes to leave the incorrect work in place without change and does not issue a new sealed and signed plan-sheet showing the as-built condition)....., or not needed (when DB tears-out the Work completely and replaces... or alternatively the EOR releases a revised sealed & signed plan-sheet showing the As-Built condition of the Work).
Response: No change – covered in 2.28.1.3

its sole discretion, stop Work until appropriate quality procedures have been established and implemented.

In addition, WSDOT retains authority to stop Work without liability wholly or in part, if the Design-Builder fails to perform the following:

- Correct conditions that are unsafe for Project personnel or the general public; and
- Correct unacceptable construction practices.

2.28.6 SUBMITTALS

2.28.6.1 QUALITY MANAGEMENT PLAN (QMP)

The Design-Builder shall submit six hard copies and one electronic copy on CDROM or DVD of the Draft QMP for Review and Comment. WSDOT will provide comments to the Design-Builder on the Draft QMP. Following resolution of the comments, and receipt of a written approval from WSDOT, the Design-Builder shall submit six hard copies and one electronic copy on CDROM or DVD of the Final QMP.

Modifications to the Final QMP shall be approved in writing by WSDOT. When the modifications are approved, the Design-Builder shall correct the six hard copies of the Final QMP, and submit one electronic copy of the revised QMP on CDROM or DVD. Each hard copy and CDROM/DVD shall be clearly marked with the revision that has been included in that copy.

2.28.6.2 EXECUTIVE MANAGEMENT REVIEWS AND INTERNAL AUDITS

The Design-Builder shall provide a hard copy of its Executive Management Reviews to WSDOT within 20 Calendar Days of completion of the reviews.

The Design-Builder shall provide a hard copy of its internal audits of the QMP to WSDOT within 20 Calendar Days of completion of the audit.

2.28.6.3 REVIEW DOCUMENTS

Prior to every design review, the Design-Builder shall provide WSDOT with six hard copies and a complete set of electronic files on CDROM or DVD of each design submittal to be reviewed, unless specified otherwise in these Technical Requirements.

2.28.6.4 QUALITY ASSURANCE/QUALITY CONTROL DOCUMENTATION

The Design-Builder shall include documentation with each ~~submittal~~ submittal, including submittals for working drawings, showing that the QA and QC processes have been completed by the DQAM. WSDOT will not accept submittals without documentation that the QA and QC processes have been completed. Acceptable documentation for design submittals will include a marked set and a corrected clean set of plans and specifications, including annotations by the originator, checker, back-checker, corrector, and verifier, as described in this Section and in accordance with industry standards.

End of Section

Comment [Jlb47]: Teresa Eckard: SR520 FB&L RFP 2.28.6.4, needs to clarify that all working drawings are to be audited by the DQAM including shop drawings for MSE walls (for construction in the field).

Comment [Jlb48]: Randall Mawdsley: Teresa I would offer this up but, I believe it is too prescriptive; "The Design-Builder shall include documentation with each submittal, including submittals for working drawings, showing that the QA and QC processes have been completed by the DQAM. WSDOT will not accept submittals, including submittals for working drawings, without documentation that the QA and QC processes have been completed by the DQAM. Acceptable documentation for design submittals will include a marked set and a corrected clean set of plans and specifications, including annotations by the originator, checker, back-checker, corrector, and verifier, as described in this Section and in accordance with industry standards."

Response: See Markups

Comment [ET49]: Note to Author – optional language, may want to use for particular types of projects – Federally funded or high risk projects. Check with HQ Materials Lab before using.

Comment [ET50]: Note to Author – optional language, may want to use for particular types of projects – Federally funded or high risk projects. Check with HQ Materials Lab before using.

2.12 PROJECT DOCUMENTATION

2.12.1 GENERAL

The Design-Builder shall conduct all Work necessary to complete the required documentation for the design and construction of the Project, and to obtain WSDOT acceptance of the final Project documentation.

2.12.2 MANDATORY STANDARDS

The following is a list of Mandatory Standards that shall be followed for all design and construction related to this Section. They are listed in hierarchical order, where the Mandatory Standards listed higher in the list shall take precedence over those listed below them. If a Mandatory Standard contains a reference to another document that is not listed below and states that the referenced document shall be used, the referenced document shall also be considered to be a Mandatory Standard with the same hierarchical precedence as the source publication. This is not a comprehensive list; other applicable standards may be required to complete the design and construction. If the Design-Builder becomes aware of any ambiguities or conflicts relating in any way to the Mandatory Standards, the Design-Builder shall immediately notify the WSDOT Engineer.

- Special Provisions (Appendix B).
- *Amendments to the Standard Specifications* (Appendix B).
- *Standard Specifications* (Appendix B).
- *WSDOT Design Manual* (M22-01) (Appendix D).
- *WSDOT Bridge Design Manual (LRFD)* (M23-50) (Appendix D).
- *WSDOT Highway Runoff Manual* (M31-16) (Appendix D).
- *WSDOT Environmental Manual* (M31-11) (Appendix D).
- *WSDOT Plans Preparation Manual* (M22-31) (Appendix D).
- *WSDOT Construction Manual* (M41-01) (Appendix D).
- *Standard Plans* (Appendix D).
- *WSDOT Electronic Engineering Data Standards* (M3028) (Appendix D).
- *WSDOT Qualified Products List* (QPL)
(<http://www.wsdot.wa.gov/Business/MaterialsLab/QPL.htm>).
- ***Insert Regional Channelization standard [example: *WSDOT Northwest Region Channelization Plan Checklist*] (Appendix O).***

2.12.3 DESIGN REQUIREMENTS

All documentation for the Project shall be submitted for review in accordance with the Quality Management Plan (QMP). Refer to Section 2.28 for QMP requirements.

2.12.3.1 DESIGN DOCUMENTATION PACKAGE (DDP) AND PROJECT FILE (PF)

The Design-Builder shall prepare a DDP and a PF for the Project. The DDP shall include signed and approved cover pages of the *Design Approval* (Appendix O) and the Project

Comment [j1b1]: Jeff Lavinder: WSDOT Project Engineer

Comment [j1b2]: Jami Boutwell: WSDOT Engineer is a defined term. This is correct as written.

Response: no change

Comment [j1b3]: Jeff Lavinder: Where do the Designer Special Provisions fall under this hierarchy? Do we want to have a placeholder?

Response: No Change
Designer Special Provisions are not part of RFP and therefore not part of this Hierarchy.

Development Approval (PDA), and all applicable components identified in Chapter 300 of the *WSDOT Design Manual* that are not included in the *Design Approval* (Appendix O) and the PDA. Components that are not included in the *Design Approval* (Appendix O) and the PDA shall be submitted for Review and Comment prior to the final DDP submittal.

The PF shall include all applicable components identified in the *WSDOT Project File Checklist* (Appendix O). Elements that do not apply to the Project shall be noted on the checklist with clarifying statements explaining why they are not applicable. For additional PF submittal requirements, see Chapter 300 of the *WSDOT Design Manual*.

The Design-Builder shall obtain copies of WSDOT generated information not included in the original RFP that the Design-Builder needs in order to complete the DDP and PF items. The DDP and PF shall be maintained throughout the Project by the Design-Builder and then submitted to WSDOT for retention before Completion. For additional guidance and resources, visit WSDOT's Project Development Division website:
www.wsdot.wa.gov/Design.

2.12.3.2 ~~CHANNELIZATION PLAN~~ ***REGIONAL TERM*** FOR APPROVAL PACKAGE

The Design-Builder shall develop a ~~Channelization Plan for Approval~~*** Package for the Project and obtain WSDOT approval. The geometric design portion of the DDP including design parameter tables shall be completed and submitted concurrently or prior to the submittal of the ~~Channelization Plan for Approval~~*** in accordance with Chapter 300 of the *WSDOT Design Manual*. Paving Plans for the Project shall not be stamped "Released for Construction" prior to receiving WSDOT approval for the ~~Channelization Plan~~***. The ~~Channelization Plan for Approval~~*** Package shall be updated for design changes during construction, and re-submitted for review and signature prior to Final Acceptance. The approved package will be used by WSDOT for Project documentation.

The ~~Channelization Plan for Approval~~*** Package shall be prepared by, or under the direct supervision of, a Professional Engineer, licensed under Title 18 RCW. Each sheet of the ~~Channelization Plan for Approval~~*** Package shall carry the Professional Engineer's stamp and signature. The ~~Channelization for Approval~~*** Package shall be submitted using the WSDOT standard format and shall follow the ****WSDOT Northwest Region Channelization Plan Checklist****.

The preliminary submittal of the ~~Channelization Plan for Approval~~*** Package shall include one hard copy and a pdf of the ~~Channelization Plan sheets~~*** and the completed ****WSDOT Northwest Region Channelization Plan Checklist****.

The Design-Builder may use a plan scale of 1 inch = 100 feet for half-size plots, provided that the text size conforms to the *WSDOT Plans Preparation Manual*, in accordance with the *Channelization Plan Scale NWR Approval Letter* (Appendix O). Detail sheets, using a plan scale of 1 inch = 50 feet, shall be provided for all intersection improvement locations including ramp terminal intersections.

The final submittal of the ~~Channelization Plan for Approval~~*** Package, with all comments resolved, shall include one full size (22 inches by 34 inches) Mylar plot.

2.12.3.3 TECHNICAL MEMORANDA

The Design-Builder shall provide technical memoranda that document decisions made during completion of the design regarding components not included in the Mandatory Standards. Technical memoranda shall be dated, indicate the Project title, and include the

Comment [Jlb4]: Phil Larson: line 3 "include the DDP checklist in RFP Appendix

Response: Ed will incorporate comment.

Comment [Jlb5]: Jeff Lavinder: Link in document needs to be corrected ")" at end needs to be removed.

JLB – fixed link.

Response – add authors note to verify link

Comment [ET6]: Note to Author – Verify link

Field Code Changed

Comment [Jlb7]: I think this may be a regional term...NWR calls it "Channelization Plan" and OR calls it "Plan for Approval (PFA)." Not sure what other regions are calling it. Discussion item for group...do we need to have a standard term for this?

Response: Make the title of the plan a fill in per Region (Teresa) and will check to see if we can standardize this subsection through the DB Work Group.

Comment [ET8]: Note to Author:

The title of the Package varies by Region
NWR uses "Channelization Plan" and
OR uses "Plan for Approval (PFA)."

Verify and Fill in appropriate title and any changes to package in this section.

Comment [Jlb9]: Region-specific

Comment [Jlb10]: Region-specific

Comment [Jlb11]: Optional Region-specific language.

Comment [Jlb12]: Phil Larson: If the final submittal of Channelization Plan is for review then why send mylars. Mylars should be submitted after all comments have been resolved. If WSDOT wants mylars at the time of final submittal then there should be no comments.

Response: See Markup language. The "final" should have all comments resolved.
Meeting Discussion
Letter from WSDOT that everything approved – do Mylars after approval?
These are not asbuilts?
Due 60 days after final RFC?

Comment [Jlb13]: Jeff Lavinder: Do they need to be submitted to WSDOT? Or is it part of the final documentation turnover?

Response: Either change to Review or leave provide, discuss in the meeting
Meeting Discussion
Add as part of the design process and task force meetings
Include in the final or RFC?

stamp and signature of a Professional Engineer licensed under Title 18 RCW in the State of Washington. The technical memoranda shall follow the following format:

- Section 1 - Subject or purpose;
- Section 2 - Background or existing conditions;
- Section 3 - Discussion of alternatives;
- Section 4 – Recommendations; and
- Section 5 – Conclusions.

2.12.3.4 CALCULATIONS

All calculations shall be prepared and checked in accordance with the QMP. The calculations shall be submitted to the WSDOT Engineer for Review and Comment, concurrently or prior to the submittal of the corresponding design plans.

2.12.3.5 DESIGN VARIANCES (DEVIATIONS, EVALUATE UPGRADES, DESIGN EXCEPTIONS, MAXIMUM EXTENT FEASIBLE)

The Design-Builder shall conduct all Work necessary to complete the Design Variances for the Project. All Design Variances shall be prepared by, or under the direct supervision of, a Professional Engineer licensed under Title 18 RCW. The cover of each Design Variance shall carry the Professional Engineer's stamp and signature. For Design Exceptions, they may be incorporated into the PDA, and will have a seal and signature as part of that document.

The Design Variances shall be approved prior to the final submittal of the Channelization Plan for Approval Package.

2.12.3.5.1 Deviations

The Design-Builder shall conduct all Work necessary to complete the Deviations for the Project. All Deviations prepared by the Design-Builder shall be prepared by, or under the direct supervision of, a Professional Engineer licensed under Title 18 RCW. The cover of each Deviation shall carry the Professional Engineer's stamp and signature.

2.12.3.5.1.1 Pre-Approved Deviations

Signed copies of the design Deviations that have been prepared and approved based on the ***insert basis here [Conceptual Plans, Future Channelization Plan, etc]*** are listed below and are included in the *Pre-Approved Design Variances* (Appendix O):

- ***Insert Deviation Titles [Deviation No. 1 – Roadway Section];
- [Deviation No. 2 – Limited Access];
- [Deviation No. 3 – Limited Access Fence]; and
- [Deviation No. 4 – Shared-Use Path].***

2.12.3.5.1.2 Additional Deviations

The Design-Builder shall prepare and obtain WSDOT approval and Local Agencies' approval as required, for all Deviations incorporated into the Project within the Project limits, and not included in the Pre-Approved Deviations described in this Section.

Comment [jlb14]: Phil Larson: Design exceptions are just paragraphs that WSDOT inputs into their DVIS (so how do we stamp them?). 2.12.3.5.3 does not say to stamp them.

Ed Barry: They are typically part of another stamped document (typically the PDA).

Response: If part of design exception – can be part of PDA, see Markup

Although additional Deviations may be requested, the Design-Builder is advised that there is no assurance they will be approved.

If required, the Design-Builder shall update Pre-Approved Deviations. The Design-Builder shall prepare documentation that conforms to the *WSDOT Design Manual* and shall submit this documentation to WSDOT for review and approval.

If WSDOT or the Design-Builder identifies that the Basic Configuration requires any Deviations that have not been approved for this Project at the time of Contract award, the Design-Builder shall prepare documentation for the Deviations which conforms to the *WSDOT Design Manual* and is in the same format as the Pre-Approved Deviations. The Design-Builder shall submit this documentation to WSDOT for review and approval. The Design-Builder shall not incorporate any Deviations into the Project without receiving WSDOT approval, and Local Agencies' approval as required. Impacts associated with implementing additional Deviations associated solely with the Basic Configuration shall be considered Necessary Changes to the Basic Configuration.

Deviations approved after Contract award shall be addressed in accordance with Section 1-04 of the General Provisions.

2.12.3.5.2 Evaluate Upgrades

The Design-Builder shall prepare and obtain WSDOT approval for all ~~evaluate-Evaluate~~ upgradesUpgrades (EU) not upgraded for the Project. Although approval of an EU with a decision to not upgrade may be requested, the Design-Builder is advised that there is no assurance it will be approved.

If the Design-Builder identifies an EU that is required for the Project, the Design-Builder shall prepare documentation for the EU that conforms to the *WSDOT Design Manual* and is in a format similar to the Pre-Approved Deviations. The Design-Builder shall submit this documentation to WSDOT for review and approval. The Design-Builder shall not incorporate any EUs into the Project without receiving WSDOT approval.

All EUs prepared by the Design-Builder shall be prepared by, or under the direct supervision of, a Professional Engineer licensed under Title 18 RCW. The cover of each EU shall carry the Professional Engineer's stamp and signature.

2.12.3.5.2.1 Pre-Approved Evaluate Upgrades

Signed copies of the EU's that have been prepared and approved based on the ***insert basis here [Conceptual Plans, Future Channelization Plan, etc.]*** are listed below and are included in the *Pre-Approved Evaluate Upgrades* (Appendix O):

- ***Insert pre-approved EU's [Evaluate Upgrade No. 1 – Lane Alignment.]***

2.12.3.5.3 Design Exceptions

The Design-Builder shall prepare and submit a list of all design exceptions to the WSDOT Engineer for Review and Comment. The list of design exceptions shall include all information listed in the *DVIS Checklist* (Appendix O) for each design exception. The design exceptions shall be numbered, and the numbered design exceptions shall be noted on the channelization plan sheets.

Comment [ET15]:

Phil Larson says:
2.12-4 lines 34 to 38
These are not stamped. Correct?

Ed Barry says:
Typically already part of a stamped document (PDA)

Response: Per the Design Manual, all deviations are stamped, no change in language

Comment [jlb16]: Jeff Lavinder: Capitalize

JLB: note that this term will also need to be added to chapter 1 as a defined term.

Ed Barry: OK

Response: See Markup

Comment [jlb17]: Phil Larson: These are not stamped. Correct?

Ed Barry says:
Typically already part of a stamped document (PDA)
See response to comment 11

2.12.3.5.4 Maximum Extent Feasible

At locations where it is not feasible to meet WSDOT design criteria for pedestrian facility design elements, the Design-Builder shall prepare and submit a Maximum Extent Feasible (MEF) document for WSDOT's approval. See Section 2.11 for additional information on Pedestrian Facilities. The Design-Builder shall coordinate with the Regional ADA Coordinator prior to preparing and submitting the MEF. The MEF document shall be prepared using the *Maximum Extent Feasible Template* (Appendix O).

Comment [jlb18]: This appendix will include the MEF cover sheet, template, and worksheet.

2.12.3.6 PROJECT DEVELOPMENT APPROVAL (PDA)

Significant revisions to the concept as documented in the *Design Approval* (Appendix O) shall be noted and updated in the PDA. The PDA shall follow the ****WSDOT Northwest Region Project Development Approval Template* (Appendix O)***. The Design-Builder shall submit a draft of the PDA within 60 Calendar Days of the last RFC design submittal. WSDOT will Review and Comment within 25 Calendar Days. All comments shall be resolved before the PDA is finalized and submitted to the WSDOT Engineer for approval. WSDOT approval is required prior to Completion.

Comment [jlb19]: Region-specific

2.12.3.7 FINAL DESIGN DOCUMENTS

Prior to Physical Completion or termination of the Contract, the Design-Builder shall collect and submit all design documents prepared in the performance of the Contract. The Final Design Documents shall include, but are not limited to, the following:

- DDP and PF.
- PDA.
- Updated electronic MicroStation and Inroads files in accordance with the *WSDOT Electronic Engineering Data Standards*, including all RFC sheets, reference files, and base mapping (topography, including survey updates).

The Design-Builder shall ensure that the Final Design Documents reflect the actual condition of the constructed Work, to the same degree of detail as the RFC Documents.

The Final Design Documents shall include all changes and corrections to the documents that depict the final completed component, with relevant data shown (including copies of calculations not previously submitted with Working Drawings or with the Final Design Submittal).

WSDOT will review the submittal and advise the Design-Builder of its acceptance of the Final Design Documents or will provide comments detailing issues to be resolved. The Design-Builder shall address all comments in a manner consistent with the comment resolution process outlined in the Design-Builders Quality Management Plan, and then resubmit the Final Design Documents to WSDOT. WSDOT approval is required prior to Completion.

Comment [jlb20]: Teresa Eckard: From SR520 FB&L RFP 2.12.3.1. Currently the RFP does not specifically state all Final design documents are required to be sealed and signed... Shouldn't this be a requirement for all Final Documents?

Ed Barry says:
The PDA is already stamped. The DDP probably not.

Response: No change in language

2.12.4 CONSTRUCTION REQUIREMENTS

The Design-Builder shall conduct all Work necessary to provide temporary and permanent final records for the Project in accordance with the *WSDOT Construction Manual* and these Technical Requirements.

2.12.4.1 AS-BUILT PLANS, AMENDMENTS TO THE STANDARD SPECIFICATIONS, SPECIAL PROVISIONS, AND TECHNICAL SPECIFICATIONS

Prior to Physical Completion of the Project, the Design-Builder shall update and re-release all RFC and design documents affected by Significant Revisions made during construction in accordance with Section 2.28. The electronic MicroStation and InRoads files shall be updated with all Significant Revisions to show the as-constructed conditions, incorporating all revisions made during construction. The Design-Builder shall make all electronic MicroStation and InRoads files consistent with the software and drawing conformance requirements of the Technical Requirements, and shall submit an electronic copy of the As-Built Plans in accordance with the WSDOT Construction Manual and one complete electronic copy of the updated MicroStation and InRoads files on CDROM or DVD.

All revisions, including Significant Revisions and minor changes, to the RFC Documents shall be performed by, or under the direct supervision of, the Engineer of Record (EOR) for the documents. For Significant Revisions, each re-issued sheet of the revised RFC plans and the cover of each of the re-issued revised RFC Technical Specifications shall include the Professional Engineer's stamp and signature. The Design Builder shall outline the threshold for these changes in their Quality Management Plan for review and acceptance by WSDOT.

WSDOT shall be notified of design revisions made during construction and calculations shall be submitted to the WSDOT Engineer for Review and Comment prior to implementation of the revisions during construction. Calculations for design revisions made during construction shall be incorporated into the design calculation file when construction is completed in accordance with Section 2.28.

The As-Built Plans shall reflect the same degree of detail as the RFC Documents in accordance with Section 2.28. Minor changes to RFC plans (not requiring EOR reissue of RFC plans or specifications) may be electronically marked with redline in electronic PDF files of the RFC documents. Underground features, including but not limited to, buried or abandoned structures, shall be documented on the As-Built Plans showing the location and elevation. The Design-Builder shall also provide reproducible originals of all Working Drawings.

The Design-Builder shall submit the As-Built Plans as a complete package in sequence, including all RFC sheets, both those with Significant Revisions and those without, in accordance with standard WSDOT numbering and naming conventions as defined in the *WSDOT Plans Preparation Manual*. The As-Built Plans shall include the following:

- A WSDOT as-built cover sheet form;
- A written certification by the EOR that the As-Built Plans follow the processes of the Project Quality Management Plan to reflect all changes and corrections made during construction;
- The EOR's stamp and signature; and
- An accompanying index and instructions.

Each sheet of the As-Built Plans shall be stamped or clearly marked "AS-BUILT".

Maintenance of Traffic (MOT) and Temporary Erosion and Sediment Control (TESC) Plans are exempt from the as-built requirements.

Comment [Jlb21]: Phil Larson: Please remove the reference to the construction manual. This does not work for design build. Please list the requirements in the RFP or in an appendix.

Response: Discuss in meeting - not clear about issue
Meeting Discussion:
Ed to check to make sure language is clear

Comment [Jlb22]: Jami Boutwell: delete "for review and acceptance by WSDOT" -- the QMP is already subject to review and approval in accordance with 2.28, no need to restate that here.

Ed Barry - OK
Response - See Markup

Comment [Jlb23]: Teresa Eckard: SR 520 FB&L RFP 2.12.3.2.1...., "As-Built" - Currently the RFP does not require the Design-Builder to submit calculations for design revisions made during construction to the WSDOT for review and comment prior to implementation...., the third paragraph simply states make them "available" to WSDOT prior to implementation. This has resulted in the Design-Builder not notifying WSDOT whenever construction changes required a revision to the design. This section of the RFP seems to have changed since SR520 Eastside went to bid.

JLB: this template says "submit" not "make available," that should correct the issue.

Ed Barry: I think it already says that. Needs discussion
Response: No Change

Comment [Jlb24]: Jeff Lavinder: EOR typically not around during the entire construction process and this is a weak requirement. It would be better for the Quality Manager to sign off that the project has been built to the as-built documents.

Ed Barry needs discussion
Response: Discussion during meeting
Meeting Discussion:
Does this mean stamping each document?
Check intent of language
What are they certifying?
Ed- WSDOT wants as-builts stamped QM licensed? Not very many out there.
Separate stamping doc's verses stamping QMP process
Clarify language
Licensed Professional Engineer instead of EOR?
Is this certifying the construction?

Comment [Jlb25]: Phil Larson: lines 29 and 32 The EOR can be different for each discipline and not one person. We should be able to have the DQAM stamp the as-builts or the EOR stamp which was used when plan sheet are up dated.

Ed Barry says: needs discussion
See previous comment

Comment [Jlb26]: Phil Larson: instructions??
What instructions?

Ed Barry - good question. Needs discussion
See previous comments

WSDOT will review the submittal and advise the Design-Builder of its acceptance of the Final Design Documents or will provide comments detailing issues to be resolved. The Design-Builder shall address all comments in a manner consistent with the comment resolution process outlined in the Design-Builder's Quality Management Plan, and then resubmit the Final Design Documents to WSDOT. WSDOT approval is required prior to Completion.

2.12.4.2 FINAL RECORDS

The Design-Builder shall submit final records prior to Completion or termination of the Contract. The Design-Builder shall prepare and submit documentation for Final Records in accordance with the *WSDOT Construction Manual* and the *Contract File Index* (Appendix O), unless otherwise noted in this Section.

2.12.4.2.1 Permanent Final Records

All final record books prepared for Permanent Final Records shall be numbered as outlined below:

- Final Record (Book No. 1).
 - The Design-Builder Personnel List (Section 2) – Containing the name and classification of managers, supervisors, foremen, testers, engineers, and any other Design-Builder personnel who were responsible for signing documents or forms or were responsible for decision-making on the Project. Each person shall sign his or her identifying initials after his or her name on this list in the same manner as it appears in other Project documents.
 - Final Estimate Sheets (Section 4) – Will be prepared by WSDOT and provided to the Design-Builder for review and signature.
 - Affidavit of Wages Paid (Section 6) – The original or copy of the approved affidavits.
 - Record of Construction Materials (Section 8) – A tabulation showing the source of all construction materials. See Section 2.25 for additional information.
- Project Engineer's Diaries (Book No. 2).
- Daily Reports (Book No. 3).
- Traffic Control Reports and the Design-Builder's Daily Report of Traffic Control and Surveillance (Book No. 4).
- Pile Driving Records (Book No. 5).
- Post Tensioning Records (Book No. 6).
- Contaminated Materials Disposal Bills (Book No. 7).
- Miscellaneous Records (Book No. 8).
 - Materials certification - See Section 2.25 for additional information.
 - As-Built plans.
 - Completed shop drawings.

2.12.4.2.2 Temporary Final Records

Temporary Final Records consist of all Project records that are not kept as Permanent Final Records. The Design-Builder shall submit the following Temporary Final Records in addition to the requirements provided in Chapter 10 of the *WSDOT Construction Manual*:

- A list of all field design changes (significant revisions and minor changes).
- Test reports for storm sewer, sanitary sewers, and water mains.
 - The Design-Builder shall develop and complete a report for the testing of storm sewers, sanitary sewers, and water mains. This report shall include the type of pipe, the location of the pipe, all of the calculated factors for the testing, the test results, and whether it passes or fails.
- Construction survey.
 - Copies of all survey calculations and survey notes including grade books and cross-section notes.
- Material acceptance test reports.
- Source of materials documentation.
- Copies of Working Drawings.
- Copies of certified payrolls (for Federally-funded projects only or when requested in writing by WSDOT).
- Horizontal and vertical alignment data.

2.12.4.3 CLOSE OUT TASK FORCE

The Design-Builder shall establish a Close Out Task Force to oversee and provide input on developing design documentation and final records. At a minimum, the Close Out Task Force meetings shall include the Project Quality Manager, Document Control Manager, Project Manager, Design Manager, and the WSDOT Engineer. The Design-Builder shall submit the meeting schedule and draft agenda to all attendees prior to the first meeting. The meetings shall be held monthly starting five months after NTP, or earlier as proposed by the Design-Builder, and continuing through Substantial Completion; and weekly from Substantial Completion through Completion.

End of Section

Comment [Jlb27]: Julia Mizuahata: if for whatever reason, project adds a FA item by CO, then certified payrolls will be required whether a Federally-funded project or not.

Ed Barry says: needs discussion
Response: See Markup - Teresa coordinated with Julia

Comment [Jlb28]: Julia Muzuhata: Should the five months be a fill-in field dependent on whether the project is a small vs large DB project?

Response: Fill in – author uses judgment on appropriate duration- see note to author

Comment [ET29]: Note to Author – Fill in - verify the time frame is appropriate for the specific project and revise as necessary.

Comment [Jlb30]: Frank Young: No comments