

March 14, 2014

**TO:** Project File  
**FROM:** Laura Peterson  
**SUBJECT:** Project Closeout Summary for Columbia River Bridges & Approaches  
Design Build Procurement – Landscape and Aesthetics

## Executive Summary

This memorandum provides the status of the work for the development of the Columbia River Bridges & Approaches Design Build Procurement, specifically addressing the following technical focus areas:

- Landscape and Aesthetics

This memo overviews the status of the work, outstanding work and next steps, an overview of project history, key decisions, and information on key documents and references. This memorandum, assembled at the time of project closeout, is intended to provide adequate information to allow project start-up within a year's time-frame.

Aesthetic development has taken place in many phases on the CRC project. Aesthetic development began internally in 2006, culminating in a report entitled *Architectural Guidelines and Aesthetic Assessment Framework*. In early 2007, the project initiated engagement with the Urban Design Advisory Group (UDAG) to advise on the project aesthetics. UDAG independently produced a draft report in 2008 called the *Design Guidance for the Columbia River Crossing Project*, which outlined high level design goals for the corridor. As part of a later aesthetic screening process, CRC actively engaged this group to solicit input on the aesthetics of the project, with the initial focus on the Columbia River Bridges. During this involvement, the Columbia River Bridges' structural design was based on an open-web box concept, and the project utilized Touchstone Architecture to develop several potential aesthetic themes to elicit comments from UDAG. The project worked closely with UDAG to establish a preferred aesthetic theme, but near the end of this process the project underwent changes after a review by an Independent Review Panel in 2010 and a Bridge Review Panel (BRP) in 2010/2011. The outcome of the BRP recommendations resulted in a change of structure type to a steel composite deck truss in early 2011. Following that process, UDAG finalized their *Design Guidance for the Columbia River Crossing Project* report in late 2011, incorporating comments on project changes post-2008. They have not met as a group since then.

Following this timeframe, CRC staff and WSDOT/ODOT landscape architecture and bridge architecture representatives took the universal design recommendations from the UDAG work and developed a document called the *Architectural and Landscape Design Criteria* (ALDC) to implement these recommendations at a detailed level. The ALDC addressed items such as common colors, textures, forms, features and landscape requirements along the corridor, and is meant to cover the entire 5-mile corridor with the exception of the transit couplet in Vancouver. This document mainly applied to the on-land work, and did not include the form and aesthetic theme of the Columbia River Bridges. It did include the elements such as barriers, concrete colors, sign structures, and illumination which were to be utilized on the Columbia River Bridges.

## Status of Work

The work includes aesthetic development for the CRBA, including architectural and landscape considerations.

To date, the overall aesthetic theme of the Columbia River Bridges has not been fully developed and vetted. Due to the state of development, the approach to contract development at the 2014 shutdown was to describe a summary of the universal design goals in the CRBA RFP, and require the DB teams to include specific views and aesthetic information in their proposals showing how they would implement these design goals, for which they would be scored accordingly. The RFP would also have a few firm requirements related to aesthetics on the Columbia River Bridges, but would still allow the DB teams to be innovative. For on-land structures, the forms, colors, textures, etc, are defined in the ALDC and represent firm contract requirements. Landscape requirements are also represented in the ALDC.

The most recent version of the ALDC was sent out for comments to the CRC team and external agency staff, and comments were received. The comment log incorporates the initial anticipated resolution of the comments with many still needing further discussions, but the ALDC was not updated to reflect the comments. The ALDC and comment log can be found at [G:\CRC\CRC Workpaper Files\ Closeout Ref By Discipline\Aesthetic\Architectural and Landscape Design Criteria at Closeout](#). The ALDC has not been viewed external to CRC, WSDOT, ODOT, and Tri-Met.

The following deliverables were completed at the approximate level of completeness as identified in Table 1, at the time of project closeout.

**TABLE 1.**  
CRBA DB Procurement Deliverables Status Summary  
*Status of Deliverables for the CRBA Design Build Procurement Development*

TASK	DELIVERABLE	APPROX. PERCENT COMPLETE	STATUS OF WORK
4.3	Draft technical Performance Requirements - provision DB 141	75%	Work in progress. Waiting for client review. Continued clean up of DB 141 for formatting, language, terminology, acronyms, interdisciplinary coordination, project interfaces, and other outstanding issues. See "Draft RFP action items list".
7.1	Draft Landscape and Aesthetic Guidelines (Title: Architectural and Landscape Design Criteria)	80%	Work in progress, but generally complete, with the exception of a few areas (railing, fencing, coping, etc.). Need to incorporate comments from previous review.
7.2	Schematic Roadside Restoration Plans (Landscape concept plans)	0%	Work not started.

Table Notes:

1. Table status as of March 14, 2014.
2. [Insert more notes as needed.]

## Known Issues

The following is a summary of the known issues that were not resolved at the time of closeout:

- The Oregon Governor's office had planned to solicit a bridge architect to inform aesthetic direction for the project and UDAG had expressed interest in being part of the bridge architect selection committee. That process was begun, but not completed.
- The ALDC required completion, based on comments received to date, which had not been incorporated. Larger issues, some of which may not be in the ALDC comment log, included:

Defining aesthetic requirements for fencing, other than throw fencing: It was anticipated that the non-SUP cell (utility cell) of the NB Columbia River Bridge would need to be fenced off with robust fencing to keep SUP traffic and transients out of that cell, while still providing the ability to access the cell for maintenance or emergency response, etc. Also, the transit cells of the Columbia River Bridges and the approach transit bridges would need fall protection fencing for maintenance workers on high rail vehicles, or by the tracks. Fall protection fencing for the corridor needed to be defined. Previously, fall protection fencing was assumed to be the WSDOT three-cable system.

Defining railing: It was decided to remove the custom railing in the ALDC and replace it with something more standard (e.g. – WSDOT BP rail or equivalent ODOT standard). The only railing anticipated in the CRBA would be on the SUP approach bridges (mounted on parapet), and across the lower level of the NB Columbia River Bridge. The height of the railing in the SUP cell of the Columbia River Bridge was not settled, but was suggested that the parapet plus railing having a combined height of no more than 6' or 7', to allow for UBIT inspection.

Developing exterior barrier treatment detail for non F-shape barrier: It is anticipated that the exterior of the vertical concrete parapet on the project would have similar treatment as the F-shape barrier.

Defining coping: The ALDC doesn't address the case where MSE walls are not adjacent to the roadway. In this case, the tops of the walls would need to be finished with a coping detail, which needs to be developed and included in the ALDC.

Developing bumpout details: The ALDC does not address flare/bumpout details in the barrier for sign structure mounting, toll gantry mounting, illumination, etc.

Noise wall detailing: The noise wall detail had included a translucent noise-reducing panel at the top called Quilite. This product is no longer available, so the noise wall detailing needs to be reworked to remove the Quilite.

Minimization of visibility of standpipes and drainage pipes on the Columbia River Bridges: Drainage pipes are anticipated on the east side of the NB Columbia River Bridge, which need to be addressed visually, as well as the standpipe system on the NB bridge.

- Conceptual landscape plan development: During development of the CRBA RFP, conceptual landscape plans were going to be created for the CRBA limits to show zones where various planting types would be anticipated, as described by categories in the ALDC (Planting Type 1A, Planting Type 1B, etc.). These were to be used as reference documents, and would provide an understanding of the quantities of different types of plantings, so that definitive minimum landscape requirements could be included in the RFP text. The ALDC describes planting types for various cases adjacent to roadways (on slopes, adjacent to walls, in flat strip areas, etc.), but does not describe what to do in open areas since these requirements depend on the specific location of the open area. The area under the SR14 interchange south of the BNSF railway was planned to be left as a relatively flat area, planted with grass as part of the CRBA construction. The City of Vancouver has planned to develop the waterfront area with Gramor, and wanted a "blank canvas" for landscaping/amenities in the future. Another outstanding item which may not be captured in the ALDC comment log is that the landscape portion of the ALDC was going to be revisited to determine if planting densities were adequately covered, so a DB team provides the intended level of landscaping.
- Confirming timing of plant establishment period: The CRBA contract was anticipated to be up to 7 years long, which is the outer limit for the ability to obtain bonding. For that reason, the plant establishment period(s) needed to be within the 7 year period, if at all possible, and the RFP needed to be clear on the structure of plant establishment periods.

## Outstanding Work

The following is a summary of outstanding work and next steps at the time of closeout that was not started, but necessary for the development of the DB Procurement final RFP for the CRBA Package:

- Determine if the project intends to hire a bridge architect to inform requirements for the Columbia River Bridges. Currently the RFP assumes a non-prescriptive approach to Columbia River Bridge aesthetics, and gives the DB teams latitude to be innovative aesthetically. If the project intends to hire a bridge architect, consider whether requirements will be prescriptive or not. If the project is planning to allow ATC's on the Columbia River Bridges' structure type, a prescriptive approach would be more difficult.
- Determine needs for any additional public process related to aesthetics.
- Complete the ALDC, landscape concept plans, and associated RFP development

## Project History, Milestones & Key Decisions

Key project milestones include:

- Development of *Design Guidance for the Columbia River Crossing Project* by UDAG, finalized in 2011.

Key project decisions include:

- Decision to utilize composite steel deck truss for Columbia River Bridges, 2011

## Project Records

Records of the work conducted under this task can be found at:

- *Design Guidance for the Columbia River Crossing Project* can be found at G:\CRC\CRC Project Files\Meetings (Mtg) thru July 2013\UDAG AH4003\Mtg-2011-10-14-1.pdf
- ALDC and ALDC comment log can be found at G:\CRC\CRC Workpaper Files\ Closeout Ref By Discipline\Aesthetic\Architectural and Landscape Design Criteria at Closeout
- Draft RFP

## Standards & Versions

Standards used for the work are listed in the Design-Build General Provisions DB 141.

[LLP: llp]

cc: Project Controls