September 20, 2012
Convened 8:30am
Adjourned 4:30pm

Projects Reviewed
Mapes Creek Restoration and 52nd Ave S CSO Reduction
SR 520 I5 to Medina

Commissioners Present
Julie Bassuk, Chair
Shannon Loew
Tom Nelson

Debbie Harris (excused from 8:30-9:00am)
Julie Parrett
Norie Sato
Osama Quotah

Lolly Kunkler (excused from 8:30-10:30am)

Incoming Commissioners Present
Seth Geiser

Staff Present
Valerie Kinast
Tom Iurino
Summary of Project Presentation

The design team gave a presentation of the 60% design of the West Approach Bridge, which connects the west end of Floating Bridge to the portal of the Montlake lid and interchange. WSDOT anticipates receiving funding from a federal TIFIA loan to construct the north portion of the West Approach Bridge and is moving forward towards final design of the north structure. The bridge will be built using a design-bid-build project delivery method not design-build.

The team presented an overview of the limits and structural components of the West Approach Bridge, and the potential for architectural refinement of components including ‘belvederes’ on the regional bicycle and pedestrian path. The baseline bridge is a concrete girder bridge; the team optimized the bridge’s span length, column size, and bridge deck depth. The lane widths, shoulder widths, deck elevation and slope are fixed as is the decision to include no big expressions above the bridge deck. The integration of pipes and bridge drains within the structural depth will reduce visual clutter. The bridge is designed to not preclude light rail in the future, either converting a lane or building a place in between the two bridges. Many of the elements of the existing structure, like the “roads to nowhere,” will be removed; the new bridge design will enable Foster Island to return to as natural a state as possible. The slope of the bridge deck allows gravity flow of stormwater runoff to the treatment facility adjacent to East Montlake Park. The design will reduce noise by use of a 4 foot high physical barrier, encapsulated expansion joints, and quieter concrete.

The team highlighted the bridge’s design issues, constraints, and opportunities: the bridge type is limited to a beam bridge; the new bridge is higher, creating an opportunity for the design of the underside; the concrete girder system leads to a massive, bulky appearance but the team has removed 42 columns and is looking for ways to further reduce the bridge’s bulk by balancing the bridge’s proportions, reshaping columns and cross beams, and creating more order; and the extent to which the design of the belvederes, railings, lighting and signs relate to those on the floating bridge.

The baseline design of the bridge is at 60% design. The team is taking a step back from the baseline, and working from 5% design toward 60% design by early next year.
SUMMARY (by Sato)

The Seattle Design Commission thanks the design team for its clear presentation of the SR520 West Approach Bridge project. The commission supports the effort to remove 42 bridge columns. It has the following recommendations:

- Show what designs inspire the design team and drive the bridge design. Explain what you are trying to achieve with the design; go beyond what the public wants, or what external forces dictate.

- The edge of the bridge as an object is most important, not just the horizontal edge seen in profile but also the edge where it hits the water and land. The success in treating the edge will make or break the project. While it is a good approach to minimize the number of columns, the overall direction looks more bulky. Create simpler lines to deemphasize the bulk and play with the geometries to make it feel thinner; study different structural solutions such as continuous cross beams, regularized columns, girder modulation and rhythm, or a less deep diaphragm. Explore the shapes of the piers/columns and whether they should be the same size all the way down to the water, taper or otherwise meet the water. The connection to the shafts need consideration.

- Include, as part of the visual analysis and presentation materials, the bridge’s many user experiences, speeds, vantage points, and scales. Consider developing a model for analysis and presentation. Show how the bridge and its elements work with floating bridge and the baseline Portage Bay bridge. Develop many more drawings, such as elevations, detailed sections, and ceiling plans. Provide 11x17 packets of the vital information as the scope of the project makes powerpoint and drawings difficult to read from afar.

- Focus on creating an experience; the bridge’s uniqueness can be a driver. That experience, as one leaves the floating bridge, should mark a transition to a more urban condition in Seattle. Also, think about the belvederes as an experience, not just placing them at regular intervals.

- Study the design of the whole bridge; the kit of parts is less important than what the whole is. Also study how the 520 project from the west might impact the design of the West Approach; the design of the project at Montlake and Portage Bay should also influence the West Approach, not just the floating bridge.

- Push for innovation in sustainability and constructability, as WSDOT is doing on the floating bridge.

- Present the preferred options for lighting, railings and signage. Show the stormwater wetland and sound mitigation details.