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## MEMORANDUM

To: Richard Conlin, President, City Council  
From: Mary Johnston, Chair, Design Commission  
Date: April 14, 2010  
Subject: SR-520 Nelson/Nygaard Report  
CC: Mayor Mike McGinn  
Diane Sugimura, Director, DPD  
Marshall Foster, Planning Director, DPD  
Peter Hahn, Acting Director, SDOT  
Barbara Wilson, Executive, Planning Commission

Dear Council President Conlin,

The Seattle Design Commission has reviewed the Nelson/Nygaard report on the SR-520 project.

We have provided recommendations in the past. From 2002 to 2006 the Commission provided feedback to WSDOT at seven briefings as design ideas evolved. In 2006 the Commission, in its review of the DEIS, expressed support of a four-lane alternative over a six lane alternative because of impacts to the Arboretum, surrounding neighborhoods, and the University of Washington. It asked that future alternatives provide: dedicated transit ramps at key junctures, lids that offer improved surface connectivity, a direct intermodal transportation connection at the University of Washington, and aggressive traffic management and congestion pricing tools. In recent years, a member of the Design Commission served with the deputy Mayor on the mediation group work, which finished its work in 2008. The Commission also provided comment on the results of the State Legislative Workgroup late last year.

The following recommendations on the ideas expressed in the recently released Nelson/Nygaard report continue our input on this project, which will be a strongly defining element of our city for many more decades to come.

### Engage an Urban Design Consultant Soon

First, the Design Commission recommends that an urban design firm with experience in knitting large scale infrastructure projects into existing



urban fabric be brought under contract by WSDOT as soon as possible. It is imperative that there be a strong conceptual approach to how the SR-520 corridor design will fit into the well-established neighborhoods that it runs through. The Design Commission's experience reviewing the SR-519 and viaduct - tunnel portal planning endeavor have shown us the superior results that can be achieved when WSDOT engages urban designers early in the process. Instead of waiting and considering urban design as an afterthought, well thought through guiding principles can inform later stages of the project design.

#### **Provide Better Visual Communication of the Project**

Two of the main challenges of weighing the possibilities in this project are its scale and scope. Visual communication tools must be used to the fullest extent possible to break the project down to a level that people can grasp and meaningfully provide comment on it. Visual simulation videos, colorful plans, rich renderings that include realistic lighting, landscaping and signage conditions are all avenues that are becoming the standard even for highway projects in urban areas now. When creating the visual informational materials, it should be considered that Seattle's topography will make the bridge, intersections, lids etc. visible from a variety of distances and vantage points. Selection of an appropriate Urban Design consultant can greatly aid in the development of appropriate visual communication tools for the project.

#### **Support a Second Bascule Bridge Over the Montlake Cut**

The Commission supports building a second, bridge across the Montlake Cut just east of the existing bridge. In the past the Commission did not support a second bridge because of the visual impacts, but the idea proposed in the Nelson/Nygaard report is to provide for expanded transit/HOV operations and increased pedestrian and bicycling throughput across the cut in comparison to the bridge proposed in option A+.

Along with the second bridge, the Commission supports providing HOV lanes on Montlake Blvd. between SR 520 and Pacific Street and providing queue jumps for buses. One of the highest goals of the Commission since it began reviewing the project has been to provide good transit, bike and pedestrian connections between the SR-520 interchange and the University of Washington light rail station. The second bridge as proposed in the Nelson/Nygaard report would contribute significantly toward this goal and would create an important linkage between a new SR-520 bike route and the Burke Gilman trail.

#### **Support a More Urban Montlake Interchange**

The Commission supports the idea of a more urban type interchange at Montlake proposed in the Nelson/Nygaard report. This proposal adds transit lanes between SR-520 and the University of Washington, which would improve bus speeds and reliability. The idea of tightening the ramp terminal intersections shortens crosswalks, and allows for more open space and opportunities this brings. It slows vehicles, reducing noise and making the intersection more pleasant to pedestrians and bicyclists. Eliminating slip lanes makes it easier for pedestrians to negotiate the interchange.

Of the two “tightened” intersections, the Design Commission supports the “Transit-HOV only Ramps at E 24<sup>th</sup>” option. Although it adds vehicular traffic to the E 24<sup>th</sup> bridge over SR-520, which is now used primarily by bicyclists and pedestrians, this design reduces the amount of traffic and conflicts in the Montlake interchange shifting transit-HOV traffic from the busy intersection. The “Transit-HOV only Ramps at E 24<sup>th</sup>” option allows for larger, more contiguous lidding than the other tightened intersection proposed in the report.

**Support Shifting Access to Lake Washington Blvd. West and Traffic Management Measures to Limit Traffic Through Arboretum**

The Commission supports shifting access to Lake Washington Blvd. west of where ramps currently exist today. The location and configuration for this connection between SR-520 and Lake Washington Blvd. should be designed so that it balances the need to provide access to/from SR 520, with the goal of having a minimal design footprint and visual impact. The Commission recognizes that if this connection were removed altogether, it would result in traffic volumes being added to the Montlake interchange, which is counter to the goal of creating an interchange that is more amenable to pedestrians and bicyclists. The design of this connection should avoid impacting the arboretum and adjacent neighborhoods and utilize connections that result in minimal visual and noise impacts, and accommodate pedestrian and bicycle volumes to the greatest extent possible.

Traffic management measures should be explored to limit the volume, and speed of traffic through the Arboretum.

**Support Exploring a Narrower Portage Bay Viaduct**

The Commission supports continuing to explore the idea of a narrower Portage Bay segment of SR-520 as compared to the A+ option. This could include an option of narrowing to four lanes and another of providing a managed shoulder instead of a seventh lane. A smaller structure has less visual and environmental impact in this very visually sensitive location.

**Support Narrowing the Overall Width of the Corridor**

The Design Commission supports narrowing the width of the mainline bridge over Foster Island as laid out in the Nelson/Nygaard report. Narrowing the shoulders would not allow for the lanes to be used as travel lanes if the need arises, but it would lessen the overall impact of the structure. In its 2006 review of the SR-520 project, the Design Commission was strongly in favor of a four lane as opposed to six lane alternative. It should be noted that if a decision is made to add light rail along the SR 520 corridor, the width of the corridor may need to be slightly expanded for this purpose. We support designing the corridor with enough width, and structural support to allow for light rail to be added in the future with a minimal level of investment. An agreement should be drafted that states that any extra width on the newly constructed corridor cannot be used for additional traffic lanes, and instead be permanently reserved for high capacity transit.

**Support Exploring Noise Reduction Measures**

In its October 31, 2006 letter to WSDOT, the Design Commission

recommended maximizing the amount of lidding and assessing the optimal location of sound walls. It recommends sound walls be used sparingly and approached more aesthetically as design elements of the corridor. There are many attractive sound walls of glass and even including solar panels that have been built in recent years in Europe that can serve as examples for this.

The Commission would like to support the Council in encouraging the State to explore reducing the speed of traffic in all or part of the corridor as a noise reduction measure as brought up in the City Council SR 520 Committee meeting on April 5<sup>th</sup>. This might also allow for narrower lane widths and thus a narrower bridge footprint, a goal expressed by the Commission in previous reviews of the project.

Explore the use of smart highway applications, such as those being planned on the eastside and on I-5 south of downtown, that would adjust speeds to the volumes of traffic, optimizing flow.

#### **Montlake Triangle**

The Commission supports an at grade solution at the Montlake Triangle. At the time of its review of the University of Washington light rail station, the option of an at grade crossing was not a possibility that was on the table and the Commission recommended the pedestrian bridge over a tunnel. The Rainier Vista plans have been reviewed by the Commission and the idea of reconnecting the upper part of the axis to the triangle is supported. The Rainier Vista plans provide an important link to and between the various transit modes that will be concentrated in the area.

#### **Support for Montlake Triangle State Workgroup Process**

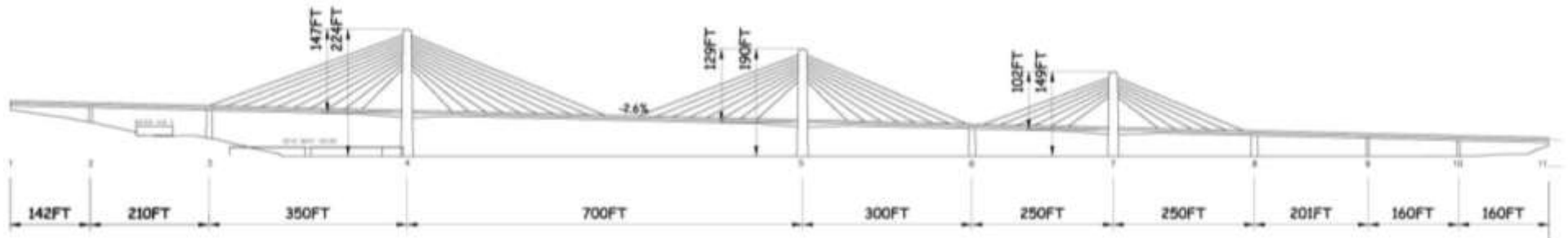
The Commission offers its support to Council on the Montlake Triangle workgroup process. A member of the Design Commission was active in the State SR 520 mediation group process and we hope that Council will see us as a resource in this new workgroup, legislated by the Governor last month. The Design Commission has a broad span of expertise; its membership includes a transportation engineer, urban planners and designers, a civil engineer, landscape architects, an artist, and architects.

#### **Conclusion**

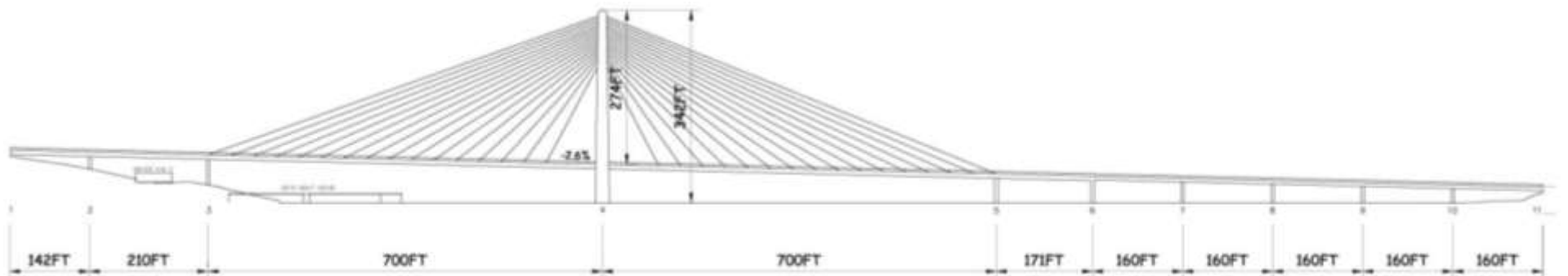
The SR 520 project is an exciting endeavor and a great opportunity to create a state highway that is at the cutting edge of what urban infrastructure projects can be in this millennium. Seattle with its gritty history, natural beauty, and international acclaim for technology and sustainable thinking should have a highway that is beyond the ordinary. The Design Commission will continue to provide ideas that will help us achieve this.

## Attachment A

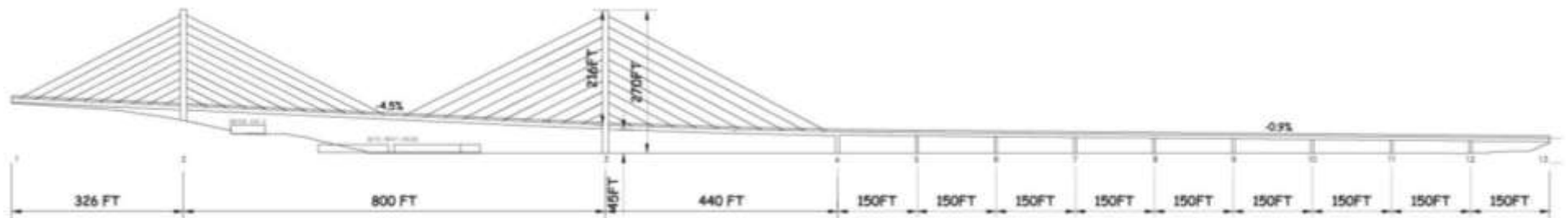
Cable stay bridge designs presented to the SDC



**July 8, 2014** – three towers of varied heights (102, 129, and 147 feet above bridge deck) and uniform 2.6% grade



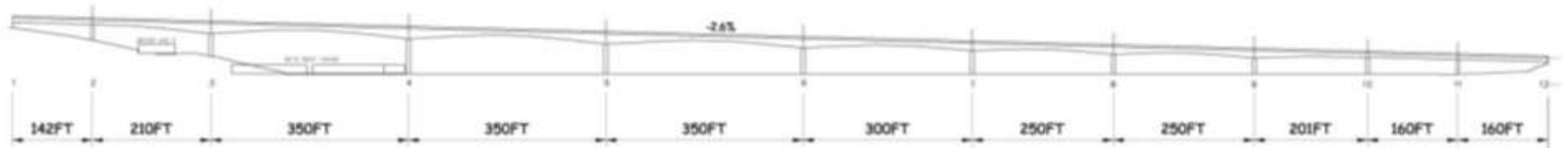
**June 17, 2014** – one tall tower (274 feet above bridge deck) and uniform 2.6% grade



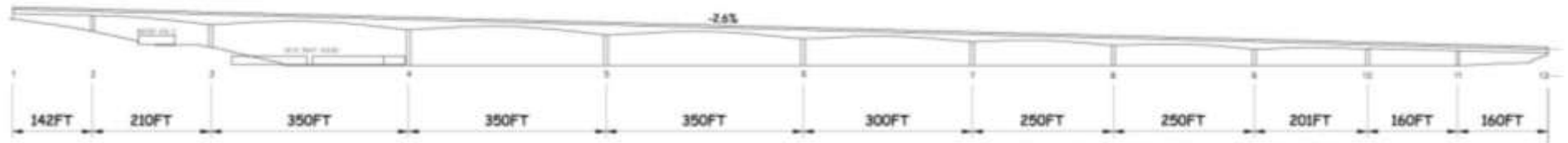
**FEIS Baseline Design** – two towers of equal height (each 216 feet above bridge deck)

## Attachment B

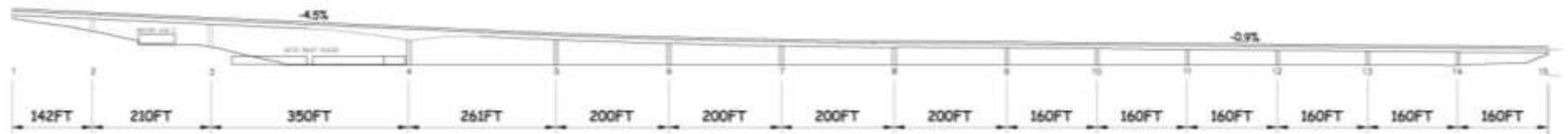
Box girder bridge designs presented to the SDC



July 8, 2014



June 17, 2014



FEIS Baseline Design