

# SR 520 Bridge Replacement and HOV Project

Cost Estimation Validation Process (CEVP)  
Updated Fall 2005

## Options for Base 6-Lane Alternative 2 General Purpose Lanes and 1 HOV Lane in each direction



### No Montlake Freeway Transit Stop:

#### Project Description

- Removes both the eastbound and westbound Montlake freeway transit stops
- Assumes function of the Montlake freeway transit stops would occur closer to the proposed Sound Transit North Link Light Rail Station at Husky Stadium

#### Project Benefits

- Reduces the footprint of the 6-Lane Alternative through the Montlake neighborhood by approximately 40 feet
- WSDOT is working with Sound Transit and King County Metro to determine how the transit stop function could be served with re-routed or additional service

#### Cost

- Subtracts \$16m to \$20m from the base 6-Lane Alternative

### Second Montlake Bascule Bridge:

#### Project Description

- This option is identical to the No Montlake Freeway Transit Stop option, except that it also includes building a second bascule (draw) bridge parallel to and just east of the current Montlake Bridge across the Montlake Cut.
- Each bridge provides one-way, three-lane traffic flow in either the northbound or southbound directions

#### Project Benefits

- Reduces the footprint of SR 520 through the Montlake neighborhood by approximately 40 feet
- Has the potential to offer improved transit operations through the Montlake corridor

#### Cost

- Adds \$65m to \$75m net to the base 6-Lane Alternative
  - Reduced cost for decreasing width of Portage Bay Bridge, SR 520, and the west approach, and for removing Montlake Freeway Transit Stops
  - Added cost for new bascule bridge

### Pacific Street Interchange:

#### Project Description

- Closes the current Montlake interchange and builds new interchange to the east
- Removes the Montlake Freeway Transit Stops
- A new bridge would connect SR 520 from the relocated interchange, across Union Bay to Montlake Boulevard at Pacific Street
- Widens the roadway on Montlake Boulevard north of Pacific Street in order to accommodate additional traffic
- Includes all aspects of 6-Lane Base Alternative project

#### Project Benefits

- Improves access to the University of Washington and the proposed Sound Transit North Link Light Rail Station, and maintains the connections to Lake Washington Boulevard
- Allows for a narrower roadway through the Montlake and Portage Bay neighborhoods, and reduces the traffic effects of the existing Montlake interchange on the surrounding neighborhoods

#### Cost

Adds \$195m to \$255m net to the base 6-Lane Alternative

- Reduced cost for decreasing width of the Portage Bay Bridge and SR 520, and removing the Montlake Interchange and Freeway Transit Stop
- Added cost for new interchange, new bridge over Union Bay, new Pacific Street Intersection, and for improvements to Montlake Blvd.

An “x” on the chart below indicated options are compatible with each other.

|   | No Montlake Freeway Transit Stop | Pacific Street Interchange | Second Montlake Bascule Bridge | S. Kirkland Park & Ride Transit Access (108 <sup>th</sup> Ave. or Bellevue Way) | No Evergreen Point Freeway Transit Stop | Bicycle/Pedestrian Path to the North |
|---|----------------------------------|----------------------------|--------------------------------|---|---|--------------------------------------|
| No Montlake Freeway Transit Stop *  |                                  |                            |                                | X   | X                                       | X                                    |
| Pacific Street Interchange  |                                  |                            |                                | X   | X                                       | X                                    |
| Second Montlake Bascule Bridge  |                                  |                            |                                | X   | X                                       | X                                    |
| S. Kirkland Park & Ride Transit Access (108 <sup>th</sup> Ave. or Bellevue Way) | X                                | X                          | X                              |   | X                                       | X                                    |
| No Evergreen Point Freeway Transit Stop   | X                                | X                          | X                              | X   |   | X                                    |
| Bicycle/Pedestrian Path to the North  | X                                | X                          | X                              | X   | X                                       |                                      |

\* Removing the Montlake Freeway Transit Stop is an assumed component of the Pacific Street Interchange and Second Montlake Bascule Bridge option.

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| <p><b>S. Kirkland Park &amp; Ride Transit Access: Project Description</b></p> <ul style="list-style-type: none"> <li>Provides improved access for transit to the South Kirkland Park-and-Ride from eastbound SR 520, and from the South Kirkland Park-and-Ride to westbound SR 520. This option can be built on either 108<sup>th</sup> Avenue Northeast or on Bellevue Way.</li> <li>The 108<sup>th</sup> Avenue option adds a new transit/HOV-only eastbound SR 520 off-ramp to 108th Avenue Northeast, as well as a new transit/HOV-only westbound on-ramp to SR 520. This connection provides direct access between 108<sup>th</sup> and the SR 520 HOV lanes that will be located on the inside of the roadway.</li> <li>The Bellevue Way option provides a new transit-only lane on the eastbound SR 520 off-ramp to northbound Bellevue Way. The lane extends north across SR 520 on Bellevue Way and connects with the Bellevue Way/Northup Way intersection, providing transit vehicles with an exclusive lane that would allow them to bypass congestion on Bellevue Way. The SR 520 westbound onramp would be relocated to Northup Way.</li> </ul> <p><b>Project Benefits</b></p> <ul style="list-style-type: none"> <li>The travel time savings and reliability for either alternative is similar. Both options allow buses to bypass local congestion during the evening commute and provide 10 to 15 minutes of travel time savings. Westbound buses have a less circuitous route between the South Kirkland Park and Ride and SR 520, therefore, their travel times are minimally affected by the options.</li> </ul> <p><b>Cost</b></p> <ul style="list-style-type: none"> <li>108<sup>th</sup> Avenue – Adds \$45m to \$55m to the base 6-Lane Alternative</li> <li>Bellevue Way – Adds up to \$5m to the base 6-lane Alternative</li> </ul> | <p><b>No Evergreen Point Freeway Transit Stop: Project Description</b></p> <ul style="list-style-type: none"> <li>Removes both the eastbound and westbound freeway transit stops at Evergreen Pt. Road</li> <li>Re-routes transit service that currently stops at Evergreen Point to the nearby Yarrow Point freeway transit stop</li> </ul> <p><b>Project Benefits</b></p> <ul style="list-style-type: none"> <li>Reduces the footprint of the 6-Lane Alternative at Evergreen Pt. Road in Medina</li> <li>Lessens property impacts in the area by reducing the width of the highway</li> </ul> <p><b>Cost</b></p> <ul style="list-style-type: none"> <li>Subtracts \$30m to \$35m from the base 6-Lane Alternative</li> </ul> <hr/> <p><b>Bicycle/Pedestrian Path to the North: Project Description</b></p> <ul style="list-style-type: none"> <li>Keeps the SR 520 bicycle/pedestrian path on the north side of the highway as it extends to the east from the SR 520 east highrise</li> <li>Couples path with a realigned Points Loop Trail separated by a buffer to distinguish between the regional and local trail systems</li> <li>Extends path approximately 1,500 feet farther east than under the base 6-Lane Alternative</li> </ul> <p><b>Project Benefits</b></p> <ul style="list-style-type: none"> <li>Eliminates the multiple sharp turns and crossings of the path as it extends east from the SR 520 east highrise</li> <li>Reduces the steep grade for users of the path at Points Drive</li> </ul> <p><b>Cost</b></p> <ul style="list-style-type: none"> <li>Subtracts up to \$4m from the base 6-Lane Alternative</li> </ul> |
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| <p><b>Base 6-Lane Alternative Project Description</b></p> <ul style="list-style-type: none"> <li>Rebuilds and expands SR 520 to six lanes between I-5 and Bellevue Way - two general purpose lanes, one HOV lane and full shoulders in each direction</li> <li>Rebuilds the Evergreen Point Bridge and the Portage Bay Bridge</li> <li>Inside HOV Lanes and inside lane transit stops at Montlake, Evergreen Pt. Rd, &amp; 92<sup>nd</sup></li> <li>Adds reversible HOV access onto the I-5 express lanes to and from downtown Seattle</li> <li>Adds bicycle/pedestrian path</li> <li>Includes five lidded sections of freeway (10<sup>th</sup> &amp; Delmar, Montlake, Evergreen Pt. Rd, 84<sup>th</sup>, and 92<sup>nd</sup>).</li> <li>Adds electronic toll collection</li> <li>Includes pontoons sized to carry future High Capacity Transit</li> </ul> | <p><b>Base 6-Lane Alternative Project Schedule</b></p> <ul style="list-style-type: none"> <li>Begin construction: 2009 to 2010</li> <li>New bridge open to traffic: 2013 to 2015</li> <li>End construction: 2015 to 2017</li> </ul> <hr/> <p><b>Base 6-Lane Alternative Project Cost Range</b><br/>(The following costs do not include the options.)</p> <ul style="list-style-type: none"> <li>80% chance the cost is between \$2.3 – \$2.8 billion</li> <li>10% chance the cost is less than \$2.3 billion</li> <li>10% chance the cost is more than \$2.8 billion</li> </ul> |
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| <p><b>Level of Project Design:</b></p> <p>Low                      Medium                      High</p> <p></p> | <p>Conducted<br/>June 2005</p> |  |
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