

# SR 520 Bridge Replacement and HOV Project

Revised June 2004

4-Lane Alternative  
2 General Purpose Lanes in each direction



## Project Description:

- Rebuilds the existing four-lane freeway from I-5 in Seattle to Bellevue Way with 2 lanes in each direction and full width shoulders
- Rebuilds the Evergreen Point Bridge and the Portage Bay Bridge
- Rebuilds existing westbound HOV lane from 108<sup>th</sup> to the east end of the Evergreen Point Bridge
- Rebuilds outside Transit Stops at Montlake, 74<sup>th</sup>, & 92<sup>nd</sup>
- Adds HOV access to the I-5 express lanes to downtown Seattle
- Creates new bicycle/pedestrian link across Lake Washington
- Electronic toll collection
- Pontoons sized to carry future High Capacity Transit.

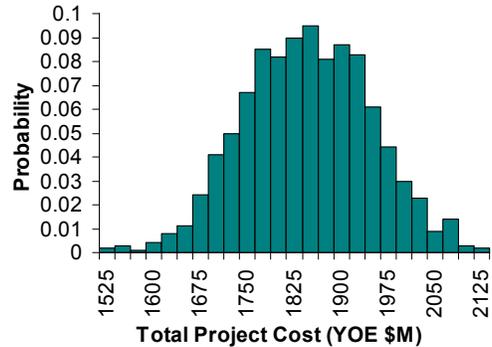
## Schedule:

Begin Construction 2008

End Construction Range: 2015 - 2016

## CEVP Result:

(Cost Estimation Validation Process)



## Project Benefits:

- Reduced seismic and storm damage risks to the Evergreen Point and Portage Bay Bridges
- Improves safety and reliability by adding full shoulders to SR 520
- Maintains current highway capacity and serves 3% more people in 7% fewer vehicles during the peak travel time
- Provides increased transit benefit with new SR 520 to I-5 express lanes connection and improved SR 520 Transit Stops
- Improves environmental quality by removing “ramps to nowhere” in Arboretum area, improving waster quality by treating storm water and reducing noise in communities by adding sound walls
- Creates a new link for bicycles and pedestrians across Lake Washington and to existing trails.
- Accommodates future High Capacity Transit across Lake Washington.

## Project Cost Range:

10% chance the cost < \$ 1.7 Billion

50% chance the cost < \$ 1.8 Billion

90% chance the cost < \$ 2.0 Billion

## What's Changed Since 2003 CEVP:

- Scope: No Change
- Schedule: Construction schedule includes a “Cash Flow” scenario for project segments.
- Cost: Escalation costs from cash flow scenario and risk associated with the use of long girders resulted in net increase of \$100M.

## Project Risks:

- Changes in construction methods for long girders
- Catastrophic failure of floating and fixed bridges could occur before replacement.
- Limited number of qualified and available contractors could increase costs.
- Near shore construction permitting.
- Changes in seismic design criteria
- Sound Transit North-Link alignment coordination.
- Potential legal challenges.
- Delays in funding

## Financial Fine Print (Key Assumptions):

- Project design and construction funding based on cash flow from the Nickel, RTID, Tolling, State, and other funding sources.
- Design funding available by 7/05 and construction funding by 1/08.
- Inflation escalation is to 2012, approximate midpoint of construction
- Additional federal, state and regional money needed to complete project. Assumes tolling
- Project cost range includes \$30 million in past expenses.

## Level of

## Project Design:

Low

Medium

High



June 1, 2004



Washington State  
Department of Transportation

# SR 520 Bridge Replacement and HOV Project

Revised June 2004

**6-Lane Alternative**  
2 General Purpose Lanes and 1 HOV Lane in each direction



## Project Description:

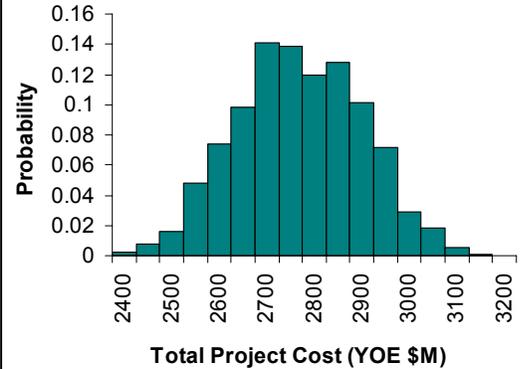
- Rebuilds and expands SR 520 to six lanes between I-5 and Bellevue Way, two general purpose lanes, one HOV lane and full shoulders in each direction
- Rebuilds the Evergreen Point Bridge and the Portage Bay Bridge
- Inside HOV Lanes and inside Transit Stops at Montlake, 74<sup>th</sup>, & 92<sup>nd</sup>
- Adds reversible HOV access to the I-5 express lanes to and from downtown Seattle
- Creates new bicycle/pedestrian link across Lake Washington
- Includes five lidded sections of freeway (Roanoke, Montlake, 76<sup>th</sup>, 84<sup>th</sup>, & 92<sup>nd</sup>).
- Electronic toll collection
- Pontoons sized to carry future High Capacity Transit

## Schedule:

Begin Construction 2008  
End Construction Range: 2017 – 2018

## CEVP Result:

(Cost Estimation Validation Process)



## Project Benefits:

- Reduced seismic and storm damage risks to the Evergreen Point and Portage Bay Bridges.
- Improves safety and reliability by adding full shoulders.
- Serves 26% more people in 11% more cars during the peak travel time
- Improves travel time and reliability for HOV and Transit by adding HOV lanes and completing the SR 520 HOV system between Seattle and Redmond.
- Provide HOV and Transit benefit with new SR 520 to I-5 express lanes connection for morning and evening
- Enhanced community connections with lids.
- Improves environmental quality by removing “ramps to nowhere” in Arboretum area, improving water quality by treating storm water, and reducing noise in communities by adding sound walls.
- Creates a new link for bicycles and pedestrians across Lake Washington.
- Accommodates future High Capacity Transit across Lake Washington.

## Project Cost Range:

- 10% chance the cost < \$2.6 Billion
- 50% chance the cost < \$2.7 Billion
- 90% chance the cost < \$2.9 Billion

## What's Changed Since 2003 CEVP:

- Scope: HOV lanes included in the Portage Bay / Montlake area to complete the HOV system from I-5 to Redmond. Added braided HOV direct access ramps to Montlake Blvd. for future consideration with Sound Transit North Link.
- Schedule: Construction schedule assumes “Cash Flow” scenario and new scope, adding 2 years to the full schedule.
- Cost: HOV lanes across Portage Bay, HOV direct access ramps to Montlake Blvd, escalation costs for cash flow scenario and risks associated with the use of long girders increased costs of full project by \$400M.

## Project Risks:

- Changes in construction methods for long girders.
- Catastrophic failure of floating and fixed bridges could occur before replacement.
- Limited number of qualified and available contractors could increase costs.
- Near shore construction permitting.
- Changes in seismic design criteria.
- Sound Transit North-Link alignment coordination.
- Design revisions at the I-405 interchange.
- Potential legal challenges.
- Delays in funding.

## Financial Fine Print (Key Assumptions):

- Full Project design and construction funding based on cash flow from the Nickel, RTID, Tolling, State, and other funding sources
- Design funding available 7/05 and construction funding by 1/08.
- Inflation escalation is to 2012, approximate midpoint of construction. Assumes tolling.
- Additional federal, state and regional needed to complete project.
- Project cost range includes \$30 million in past expenses.

## Level of

## Project Design:



June 1, 2004

