

# SR 520 Bridge Replacement and HOV Program

**Paula J. Hammond, P.E.**  
Secretary

**David L. Dye, P.E.**  
Deputy Secretary

**Steve Reinmuth**  
Chief of Staff

**Julie Meredith, P.E.**  
SR 520 Program Director

**Joint Transportation Committee**  
**July 13, 2011**

# Presentation Overview

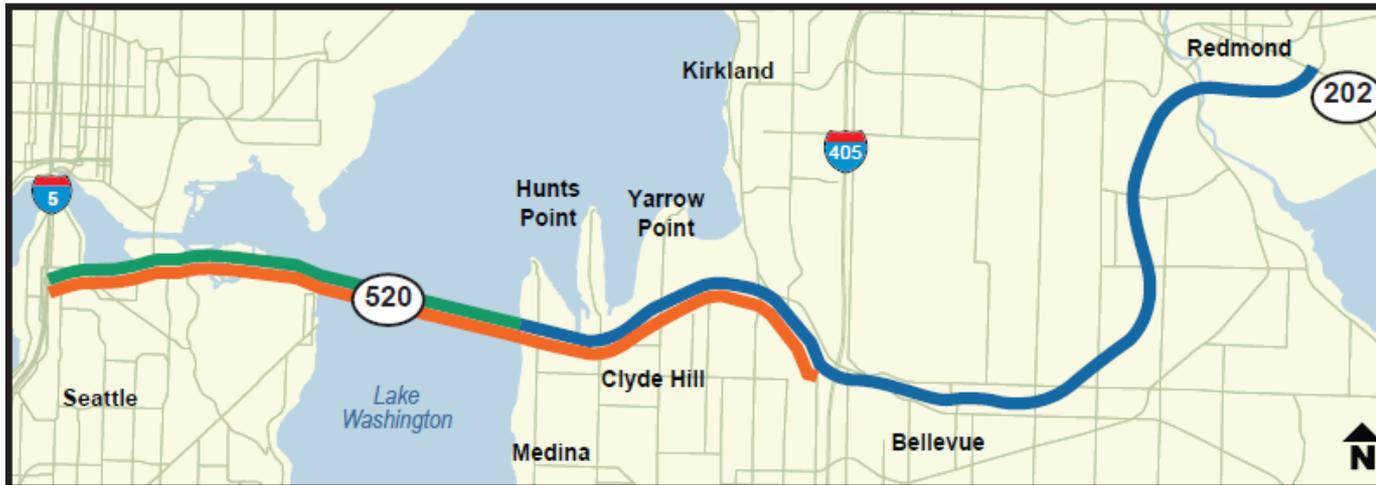
- SR 520 Program overview
- Under construction: Pontoons and Eastside
- I-5 to Medina Final Environmental Impact Statement
  - Preferred alternative and summary of findings
- Next steps and funding



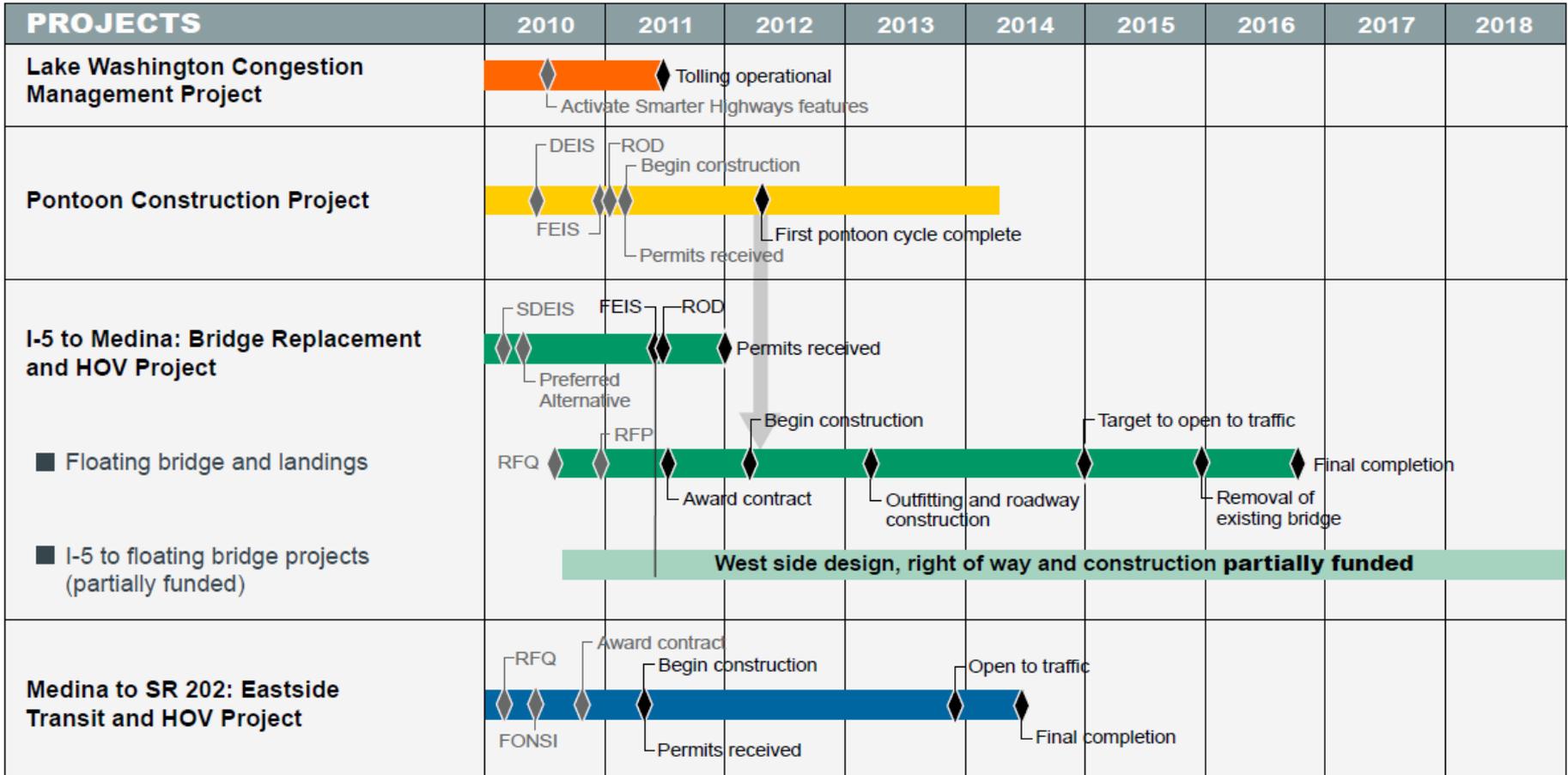
# SR 520 Program Description

The SR 520 Bridge Replacement and HOV Program will replace the Portage Bay and Evergreen Point bridges and improve the existing roadway between I-5 in Seattle and SR 202 on the Eastside.

-  **I-5 to Medina: Bridge Replacement and HOV Project** – Replaces the SR 520 floating bridge and landings, and interchanges and roadway between I-5 and the eastern shore of Lake Washington.
-  **Medina to SR 202: Eastside Transit and HOV Project** – Completes and improves the transit and HOV system from Evergreen Point Road in Medina to the SR 202 interchange in Redmond.
-  **Lake Washington Congestion Management Project** – Implements tolls on the existing SR 520 floating bridge, and activates Smarter Highways features from I-5 to I-405.
-  **Pontoon Construction Project** – Advances pontoon construction to restore the floating section of the SR 520 bridge in the event of a catastrophic failure and to store those pontoons until needed.



# SR 520 Program Schedule



UPDATED: May 16, 2011

# SR 520 Design-Build Contracts

Project	Value	Location	Schedule	Goals
<b>Pontoon Construction Project</b>	Awarded contract - \$367.3 million  Kiewit- General Joint Venture	Aberdeen, WA	<ul style="list-style-type: none"> <li>• Award contract – Jan. 2009</li> <li>• FEIS – Dec. 2010</li> <li>• ROD – Jan. 2011</li> <li>• Begin construction – Feb. 2011</li> <li>• 1st cycle of pontoons – Spring 2012</li> <li>• Last cycle of pontoons – Spring 2014</li> </ul>	<ul style="list-style-type: none"> <li>• 6% DBE Goal</li> <li>• 50,000 training hours</li> <li>• 15% apprenticeship</li> <li>• State and federal prevailing wage</li> </ul>
<b>Eastside Transit and HOV Project</b>	Awarded contract- \$306.3 million  Eastside Corridor Constructors	East side of Lake Washington (Medina to Bellevue)	<ul style="list-style-type: none"> <li>• FONSI – May 2010</li> <li>• Award contract – Nov. 2010</li> <li>• Began construction – April 2011</li> <li>• Substantially complete – Dec. 2013</li> </ul>	<ul style="list-style-type: none"> <li>• 11% DBE Goal</li> <li>• 58,500 training hours</li> <li>• 15% apprenticeship</li> <li>• State and federal prevailing wage</li> </ul>
<b>SR 520 Evergreen Point Floating Bridge and Landings Project</b>	<b>Estimated - \$600 - \$750 million</b>	Lake Washington; TBD Production and Outfitting sites	<ul style="list-style-type: none"> <li>• Released RFQ – Aug. 2010</li> <li>• RFP – Dec. 2010</li> <li>• Proposals due – June 2011</li> <li>• FEIS – June 2011</li> <li>• <b>Award contract – Aug, 2011</b></li> <li>• Open to traffic – Dec. 2014 (target)</li> </ul>	<ul style="list-style-type: none"> <li>• 7% DBE Goal</li> <li>• 74,600 training hours</li> <li>• 15% apprenticeship</li> <li>• State and federal prevailing wage</li> </ul>

Updated: June 2011

# SR 520 Design-Bid Build Contracts

Project	Value	Location	Schedule
<b>Grass Creek Mitigation Project</b>	Awarded contract - \$1.2 million  <b>Rognlin's, Inc.</b>	Aberdeen, WA	<ul style="list-style-type: none"> <li>• Award contract – June 21, 2011</li> <li>• Begin construction – July 2011</li> <li>• Complete construction- Nov. 2011</li> <li>• Final Planting of site- 2012</li> <li>• 10-year monitoring</li> </ul>
<b>Pontoon Moorage Project</b>	Awarded contract- \$ 4.5 million  <b>Kiewit/General /Manson, A Joint Venture</b>	Grays Harbor	<ul style="list-style-type: none"> <li>• Award contract – July 5, 2011</li> <li>• Begin construction – Fall 2011</li> <li>• Complete construction- Spring 2012</li> </ul>
<b>Evans Creek Wetlands Project</b>	<i>Engineer's estimate is not finalized.</i>	Redmond, WA	<ul style="list-style-type: none"> <li>• Ad date- April 2012</li> <li>• Begin construction- Summer 2012</li> <li>• Complete construction- Summer 2014</li> </ul>

Updated: June 2011

# Projects Under Construction Now



**Eastside: Workers strain under the weight of a huge concrete fish culvert.**



**Pontoon Project: Welders cut through pilings**



**Grass Creek Mitigation: Project Kick-off**

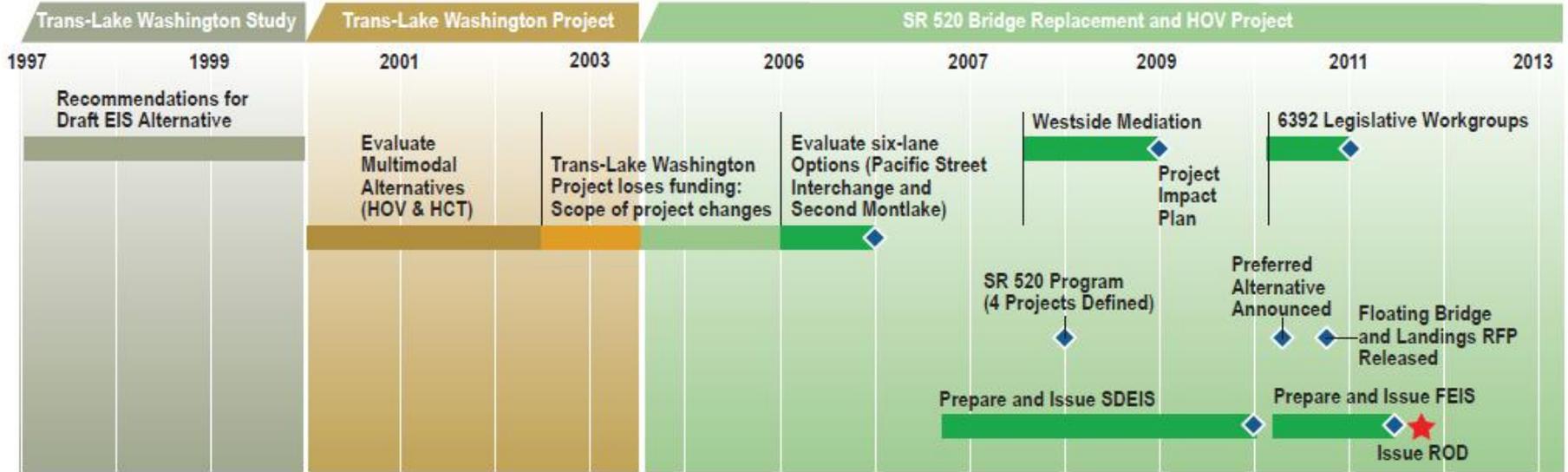
# Pontoon Construction Project in Aberdeen



# Eastside Transit and HOV Project



# Final Environmental Impact Statement (FEIS): Project Timeline



- Final EIS published June 17, 2011
- Record of Decision anticipated in late July, 2011

# FEIS: Topics Analyzed

- Construction techniques and activities (analyzed for all disciplines)
- Transportation
- Land use and economic activity
- Social elements (including environmental Justice)
- Recreation (including Section 4(f) and Section 6(f))
- Visual quality
- Cultural resources (including Section 106)
- Noise
- Air quality
- Energy and greenhouse gases
- Water resources
- Ecosystems
- Geology and soils
- Hazardous materials
- Navigation
- Indirect and cumulative Impacts



# FEIS: Preferred Alternative Key Features

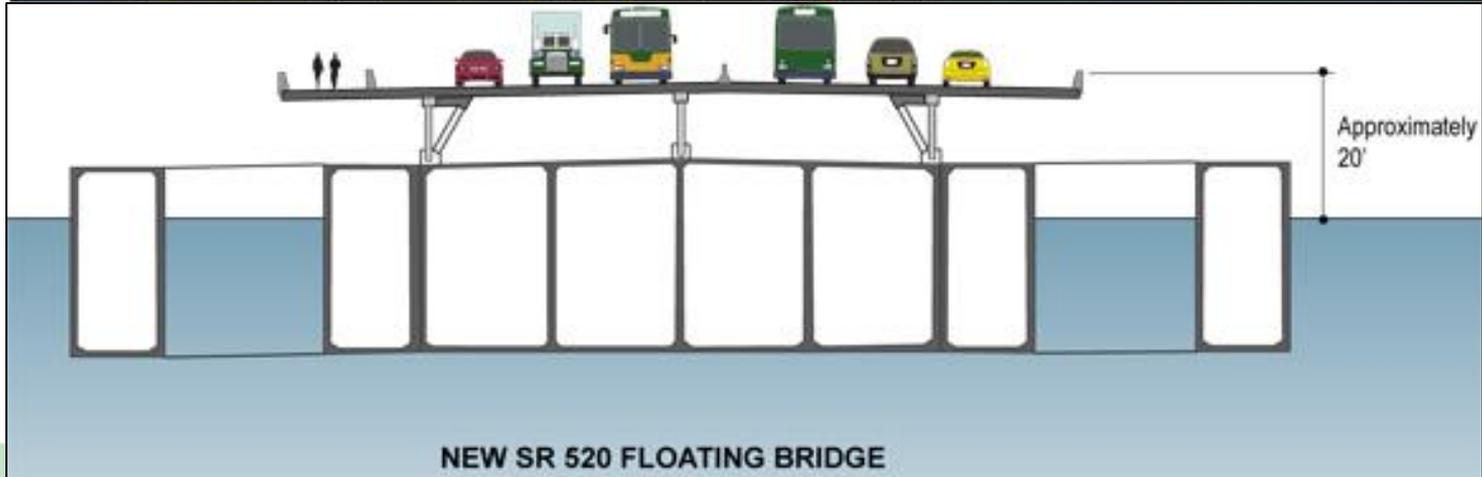
- A six lane corridor with four general purpose lanes, a new transit/HOV lane in each direction, and a new bicycle/pedestrian path.
- Improved transit connections and travel times.
- Accommodation of future light rail.
- Improved bicycle and pedestrian trail connections.
- Landscaped lids that reconnect neighborhoods.
- Noise reduction measures.
- Improved stormwater treatment.
- Park enhancements and new and restored wetland and aquatic habitat.



# FEIS: Comments Incorporated

- ✓ Designed the corridor to accommodate no more than six lanes
- ✓ Ensured the new bridge is designed to accommodate future light rail
- ✓ Reduced width of Portage Bay Bridge
- ✓ Located urban interchange at Montlake
- ✓ Expanded the lid at Montlake
- ✓ Provided dedicated transit/HOV lane on Montlake Boulevard
- ✓ Set triggers for determining necessity of Second Montlake Bridge
- ✓ Provided funds for Montlake Triangle Project
- ✓ Minimized shading from West approach bridge
- ✓ Lowered height of the floating bridge
- ✓ Eliminated Arboretum ramps
- ✓ Refined Arboretum footprint
- ✓ Began planning for the implementation of Arboretum traffic management and calming
- ✓ Implementing noise reduction methods recommended by noise ERP

# Preferred Alternative: Floating Bridge and Landings



# Summary of Findings: Transportation

- Completes the transit/HOV system.
- Adds new commuting options.
- Accommodates bus rapid transit.
- Moves more people daily, fewer vehicles.
- Reduces traffic volumes through the Arboretum.



# Summary of Findings: Travel Times

Drivers, buses and carpools traveling on key regional routes will get to their destinations faster when this project is complete. The FEIS shows:

- **SR 520 corridor:** Up to 25 minutes faster on SR 520 between I-5 and Redmond.
- **I-5 corridor:** Up to 24 minutes faster on I-5 between I-90 and N.E. 45th Street.
- **Montlake Boulevard:** Up to 12 minutes faster on local streets in the Montlake area.



# Summary of Findings: Environmental Protections

Achieves greatest overall environmental benefits compared to other alternatives studied:

- Has the lowest park impacts.
- Provides a new approximately 4-acre public park and adds eight acres of new public open space on the lids.
- Affects less wildlife habitat.
- Reduces noise along the corridor.
- Minimizes impacts to the Arboretum and Native American traditional cultural properties.



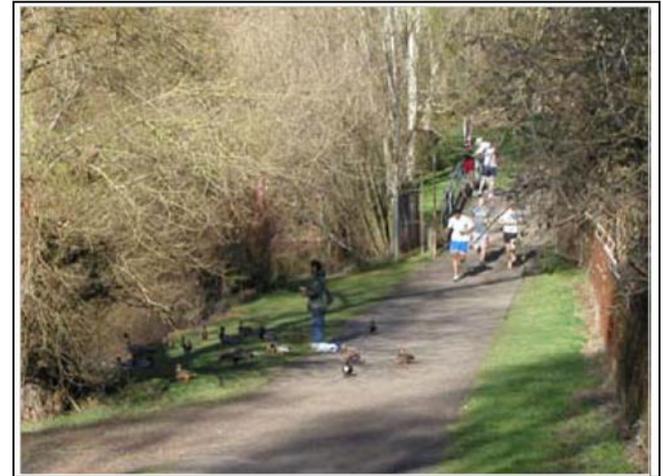
*Washington Park Arboretum*

# Summary of Findings: Recreation and Parks

- The preferred alternative has the lowest park impacts.
- Effects to: Bagley viewpoint, Montlake Playfield (submerged lands and undeveloped area), East Montlake Park, McCurdy Park, Arboretum, UW Open Space

## Proposed mitigation:

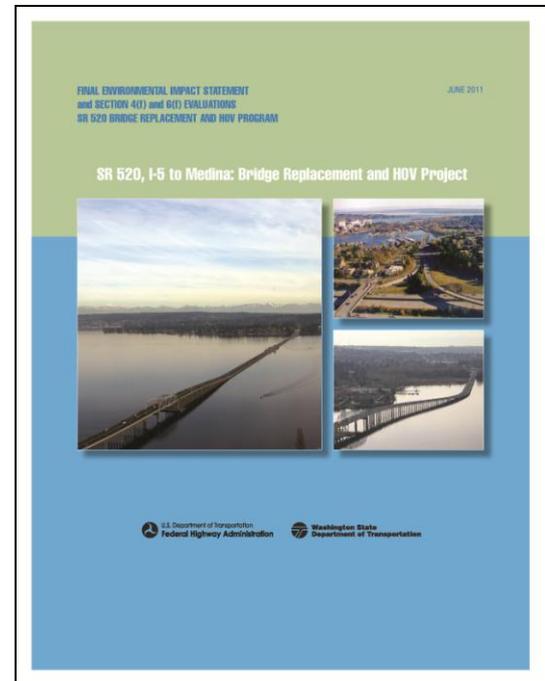
- Funding a new park on the Lake Washington Ship Canal.
- Funding for the Arboretum improvements as outlined in Memorandum of Understanding and a potential land conveyance.
- Funding for the Arboretum multi-use trail.
- Restoration of all park properties affected by construction.
- Replacement of the Bagley Viewpoint on the 10th and Delmar lid.



*Washington Park Arboretum*

# How Can the Public View the FEIS?

- SR 520 program website: [www.wsdot.wa.gov/projects/sr520bridge](http://www.wsdot.wa.gov/projects/sr520bridge).
- Local public libraries in the greater Seattle area.
- Call WSDOT at 206-770-3500 to request a free executive summary and DVD or to purchase a printed copy of the document for \$60.



# I-5 to Medina Project: Next steps and Early Implementation

- Federal, state & local permits
  - U.S. Army Corp of Engineers; U.S. Coast Guard
  - WA State Fish and Wildlife; WA State Dept. of Ecology;
  - City of Seattle and City of Medina Shoreline Permits
- Muckleshoot Indian Tribe consultation
- City of Seattle coordination
  - Montlake Triangle
  - Traffic calming
  - Second bascule bridge
  - Arboretum Botanical Garden Committee
- Public involvement
  - Seattle Community Design Process
  - Community Construction Management Plan
- Funding



# What is Funded For \$2.62 Billion?



Partially funded for  
Environmental and  
Preliminary Engineering and  
Right of Way

Funded  
as of April 2009

Funded as of  
March 2010

**Program cost:** \$4.65 billion

**What's funded: \$2.62 billion (includes sales tax deferral)**

- Pontoon construction in Grays Harbor.
- The floating bridge and landings.
- Eastside transit and HOV improvements.

# Questions?

For more information:

**Visit:** [www.wsdot.wa.gov/projects/SR520Bridge](http://www.wsdot.wa.gov/projects/SR520Bridge)

**E-mail:** SR520Bridge@wsdot.wa.gov

**Call:** 1-888-520-NEWS (6397)

**Mail:** Washington State Department of Transportation  
SR 520 Bridge Replacement and HOV Program  
600 Stewart Street, Suite 520  
Seattle, WA 98101

# Extra slides

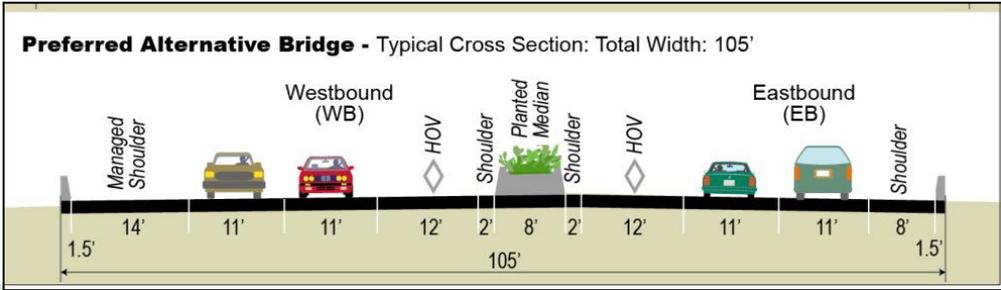
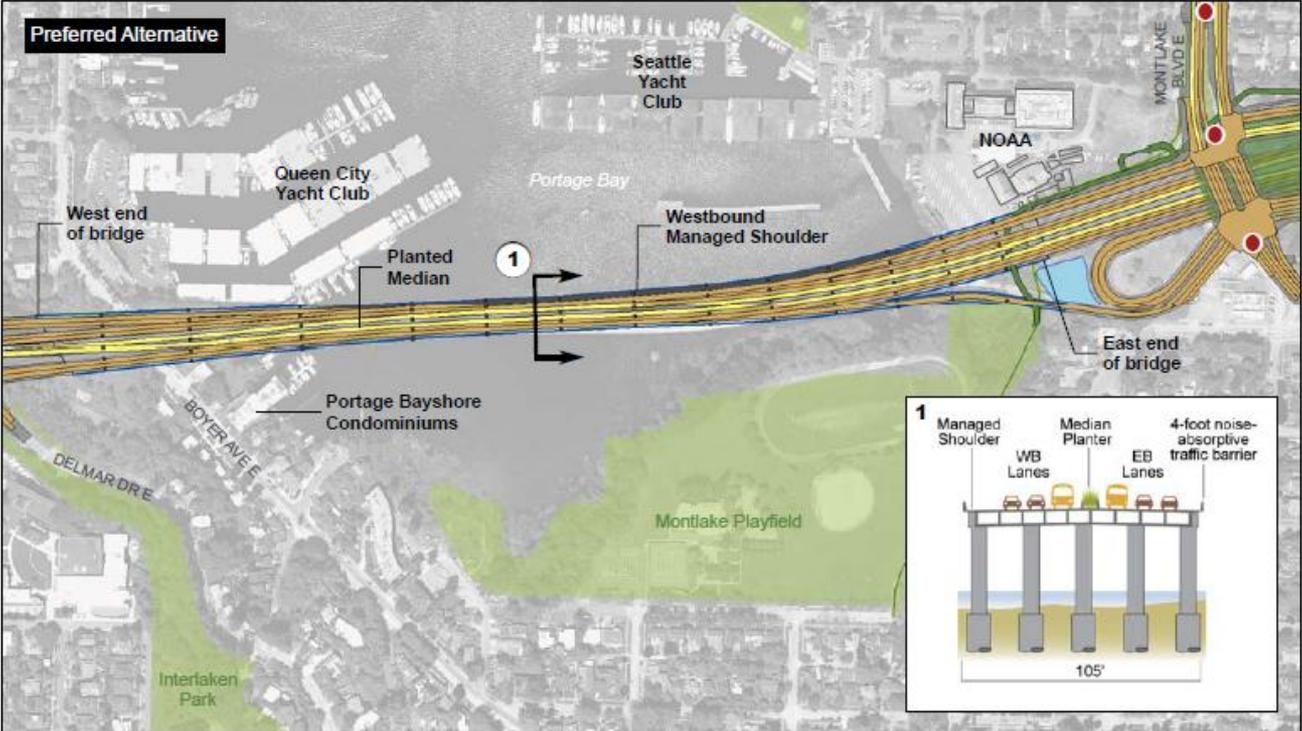
# Preferred Alternative: I-5 interchange



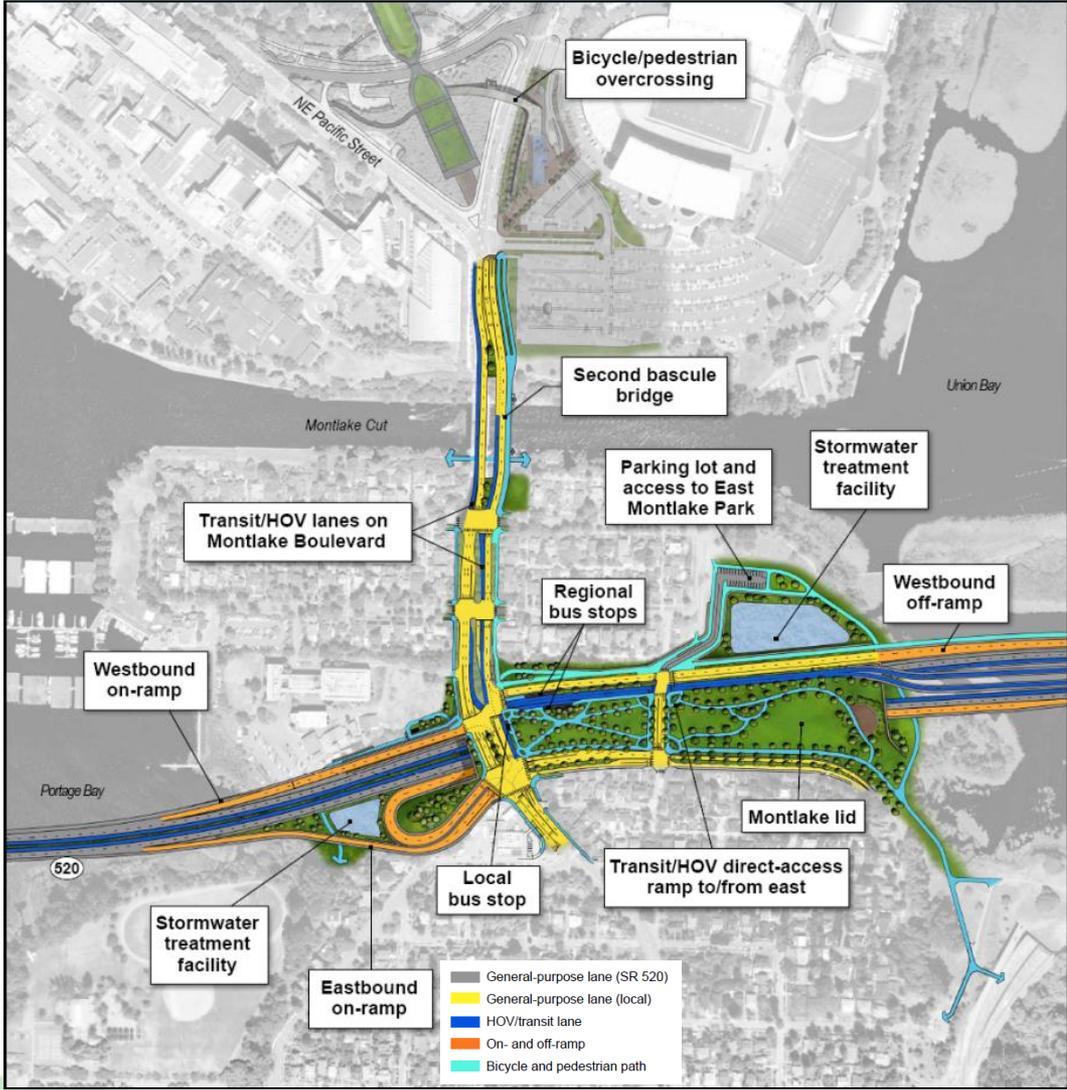
- General-purpose lane (SR 520)
- General-purpose lane (local)
- HOV/transit lane
- On- and off-ramp
- Bicycle and pedestrian path

# Preferred Alternative: Portage Bay area

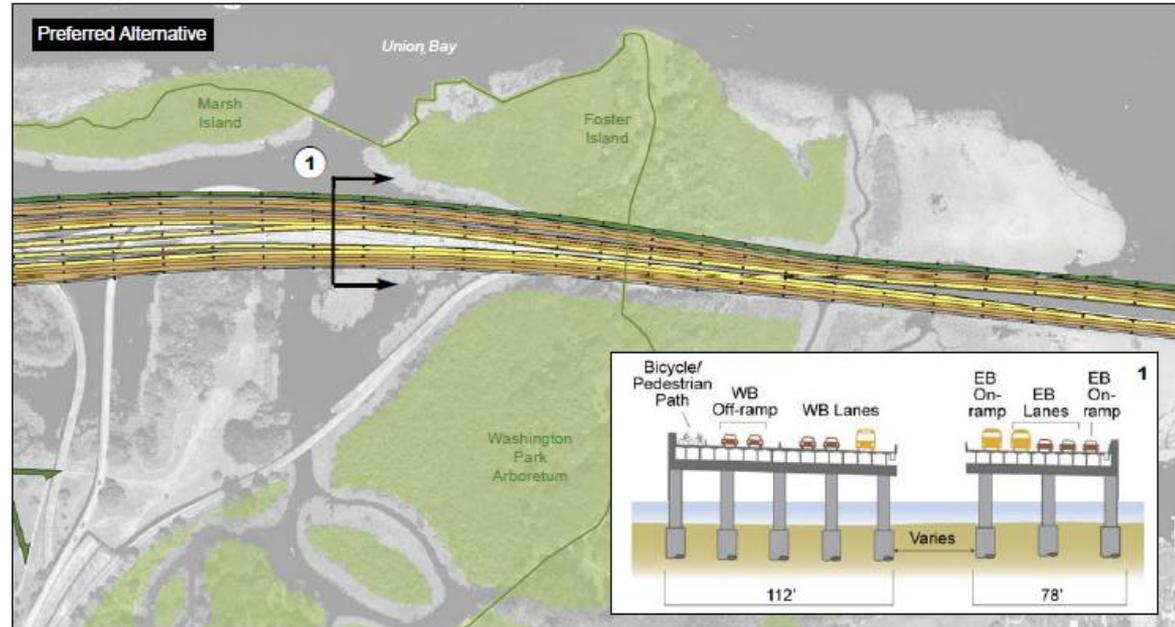
- Columns
- Signalized intersection
- General-purpose lane
- HOV, direct access, and/or transit-only lanes
- Existing regional bicycle/ pedestrian path
- Westbound managed shoulder
- Stormwater treatment facility
- Lid or landscape feature
- Pavement



# Preferred Alternative: Montlake area

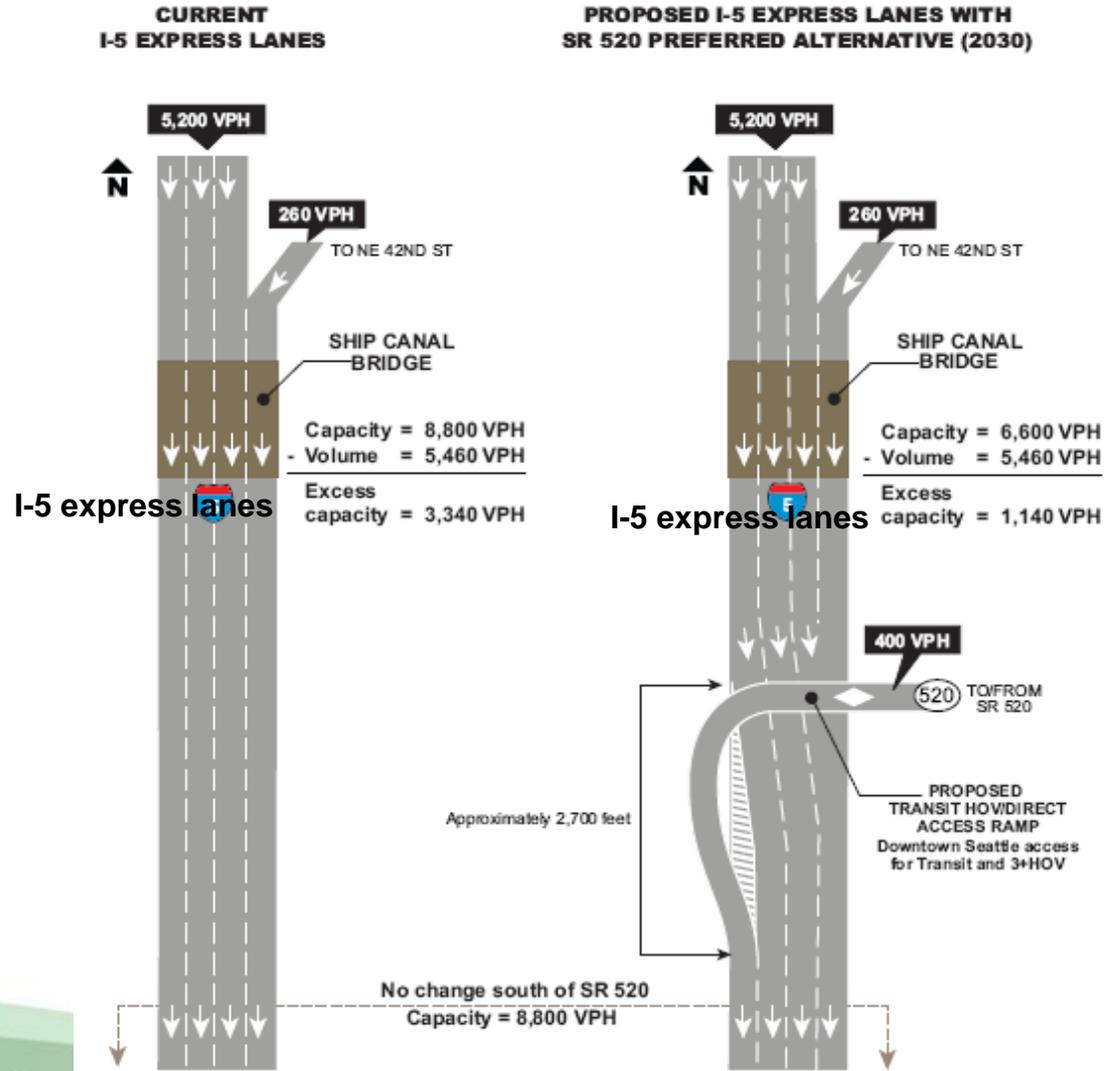


# Preferred Alternative Overview: West Approach Area



- Columns
- Existing regional bicycle/pedestrian path
- ▬ General-purpose lane
- ▬ HOV, direct access, and/or transit-only lanes
- ▬ Proposed bicycle/pedestrian path
- ▬ Lid or landscape feature
- ▬ Stormwater treatment facility
- ▬ Pavement

# Preferred Alternative: I-5 Express Lane Configuration



# Summary of Findings: Cultural Resources

- The project area includes a number of historic and cultural resources.
- Section 106 of the NHPA requires agencies to consider the protection of historic and cultural resources when undertaking Federal projects.
- Proposed mitigation is described in the Section 106 Programmatic Agreement signed by:
  - WSDOT
  - Advisory Council of Historic Preservation
  - Federal Highway Administration
  - US Army Corps of Engineers
  - National Oceanic and Atmospheric Administration
  - Washington State Historic Preservation Officer
  - 20 consulting parties, including the city of Seattle, with a demonstrated interest in cultural resources



*Historic home in the Roanoke Park  
Historic District*



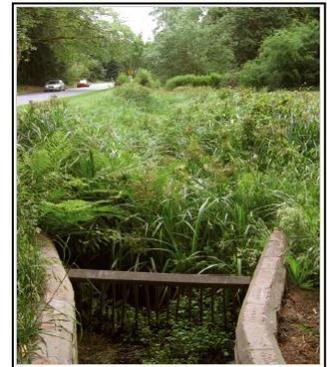
*Historic home in the Montlake  
Historic District*

# Summary of Findings: Noise

- Once the project is constructed, traffic noise will be reduced.
- WSDOT is incorporating noise-reducing elements.
- Other project design elements may further reduce noise.
- Because of the noise reductions achieved by design changes, noise walls are not proposed in the Seattle portion of the project area.

# Summary of Findings: Ecosystems

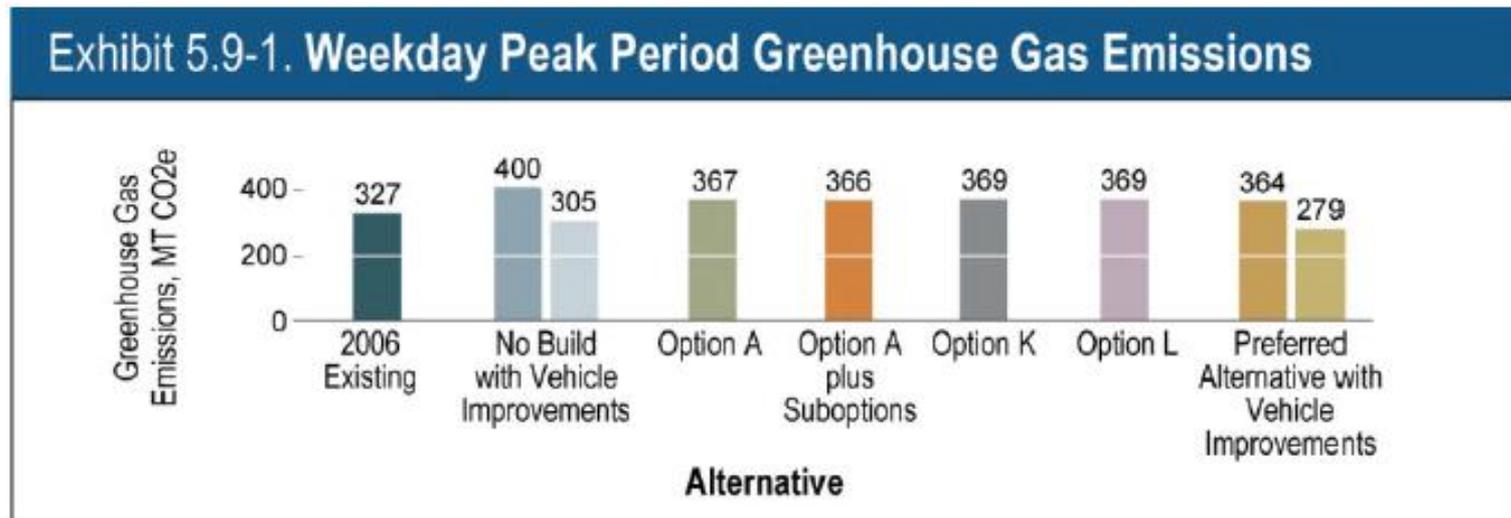
- The preferred alternative is the Least Environmentally Damaging Practicable Alternative under the Corps of Engineers' wetland regulations.
- Mitigation: Compensatory mitigation for effects to wetlands is required. Wetland and aquatic mitigation is proposed at the following locations:
  - Washington Park Arboretum in Seattle
  - WSDOT Peninsula
  - Union Bay Natural area south of Arboretum
  - Magnuson Park in Seattle
  - Cedar River floodplain in King County
  - Bear Creek in Redmond
  - Taylor Creek near south Lake Washington
  - Under the SR 520 east approach in Medina
  - Seward Park in Seattle
  - South Lake Washington



*Arboretum Creek.*

# Summary of Findings: Energy and Greenhouse Gases

- Reduces annual vehicle miles traveled on SR 520 by five to ten percent and greenhouse gas emissions by almost 10 percent.

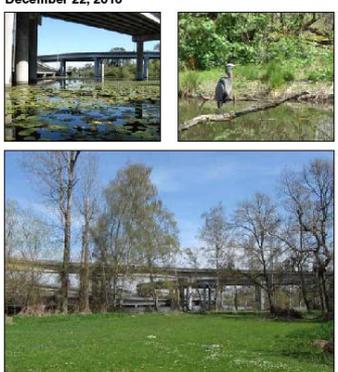


# Implementation: Arboretum Mitigation Projects

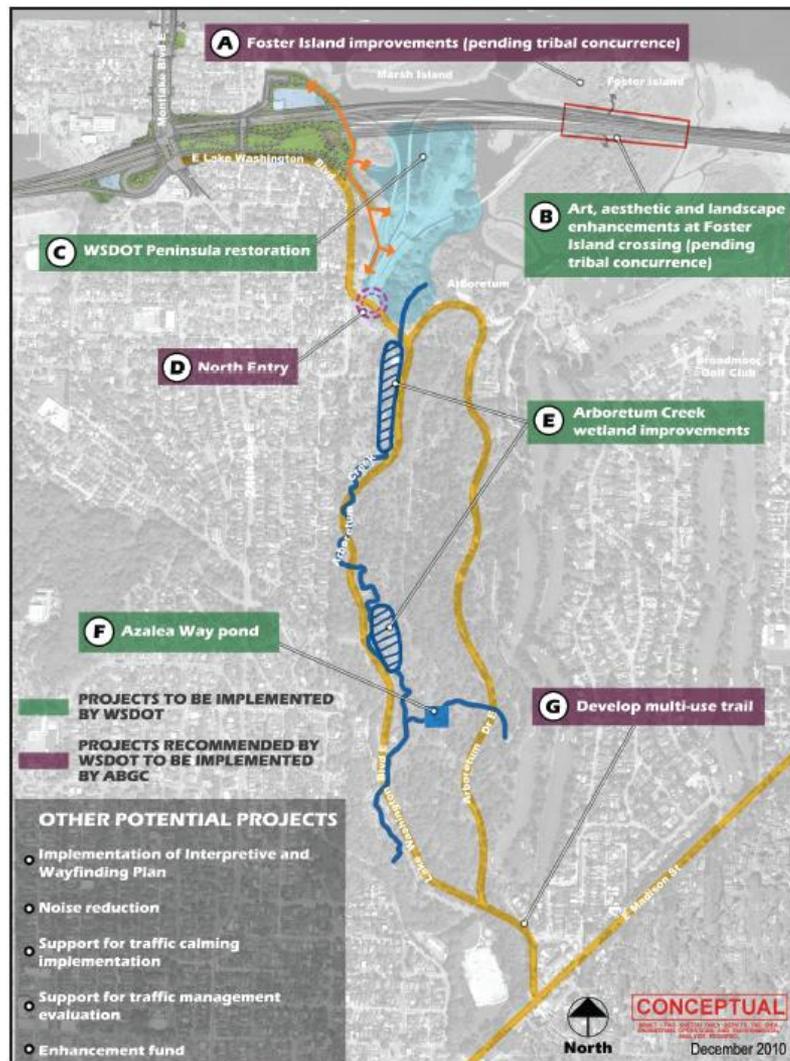
Washington State Department of Transportation  
**SR 520 Bridge Replacement and HOV Program**  
 I-5 to Medina: Bridge Replacement and HOV Project

**Washington Park Arboretum Mitigation Plan**

December 22, 2010



Washington State Department of Transportation



Projects identified in the 2010 Arboretum Mitigation Plan.

# Implementation: Arboretum Traffic Calming

- WSDOT is working in partnership with SDOT to implement traffic calming through the Arboretum.



Potential traffic calming strategies

# Implementation: Neighborhood Traffic Management Planning

- WSDOT is launching an effort in partnership with SDOT on a neighborhood traffic management plan for the Montlake Boulevard and 23rd Avenue corridor.



# Implementation: Second Bascule Bridge Triggers

- City of Seattle is leading an effort with WSDOT to establish three separate metrics to trigger the construction of the second bascule bridge.
  1. Travel time
  2. Shared use path levels of service
  3. SR 520 operations.



*Existing Montlake Bascule Bridge*

# Implementation: Montlake Triangle Project

