

SR 520 Bridge Replacement and HOV Program



Julie Meredith, P.E.

SR 520 Program Director

Paula Hammond, P.E.

Secretary of Transportation

David Dye, P.E.

Deputy Secretary

Kerry Pihlstrom, P.E.

I-5 to Medina Engineering Manager

Seattle City Council, SR 520 Special Committee

Council Chambers, Seattle City Council

October 10, 2011, 2:30 p.m.

Presentation overview

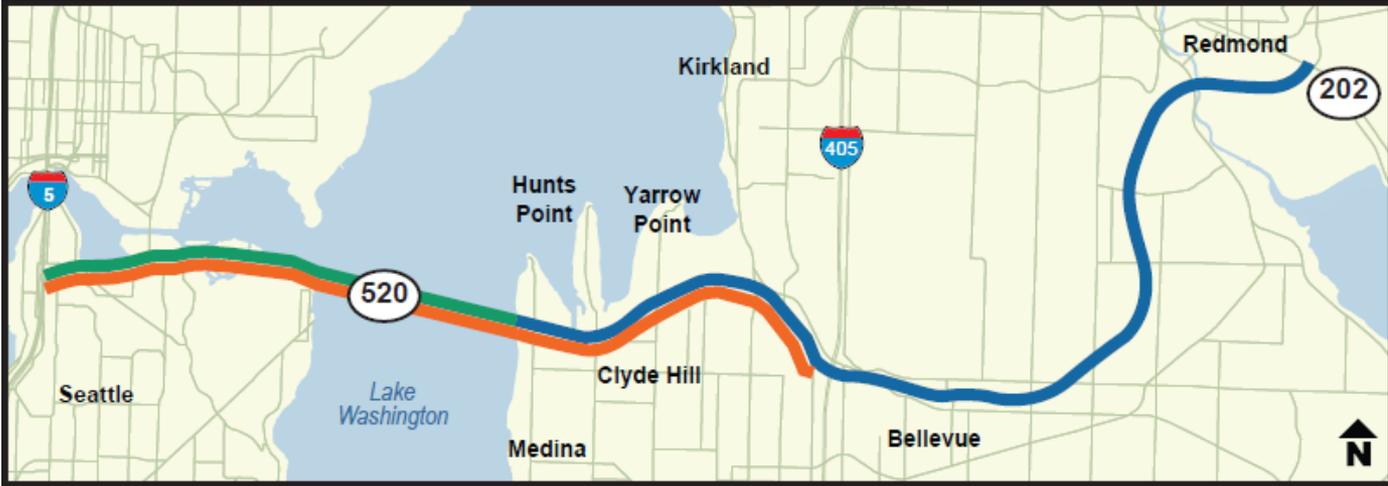
- SR 520 program updates
- SR 520, I-5 to Medina project updates
- Seattle Community Design Process
- Next steps



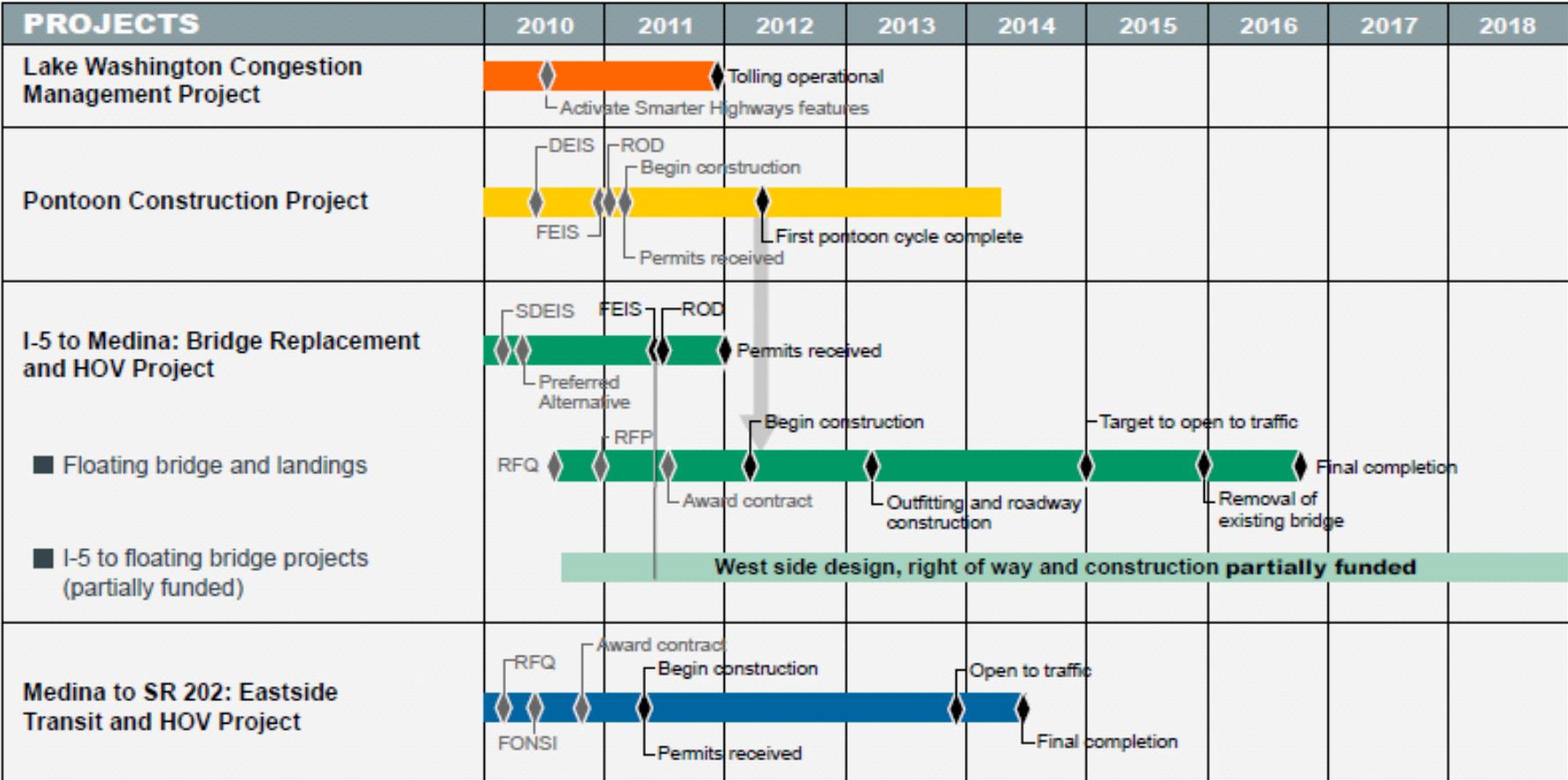
SR 520 program description

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: Sept.8, 2011

Project need: Vulnerability



A torn cable joint found during a routine inspection in February 2006. The cables connect the floating bridge pontoons to their underwater lakebed anchors.



Portage Bay

Union Bay

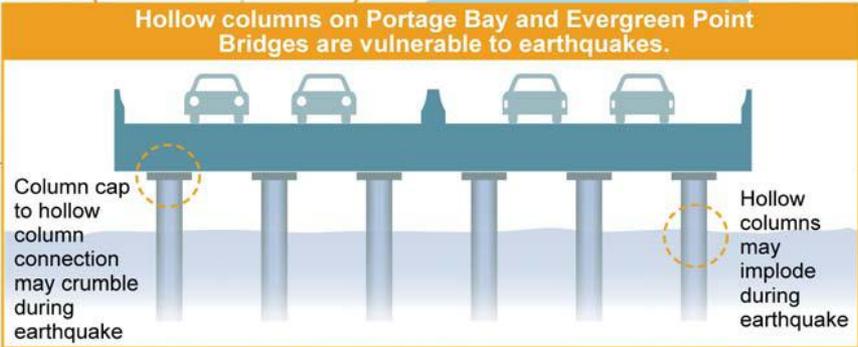
Lake Washington

520

405

Vulnerable to High Winds

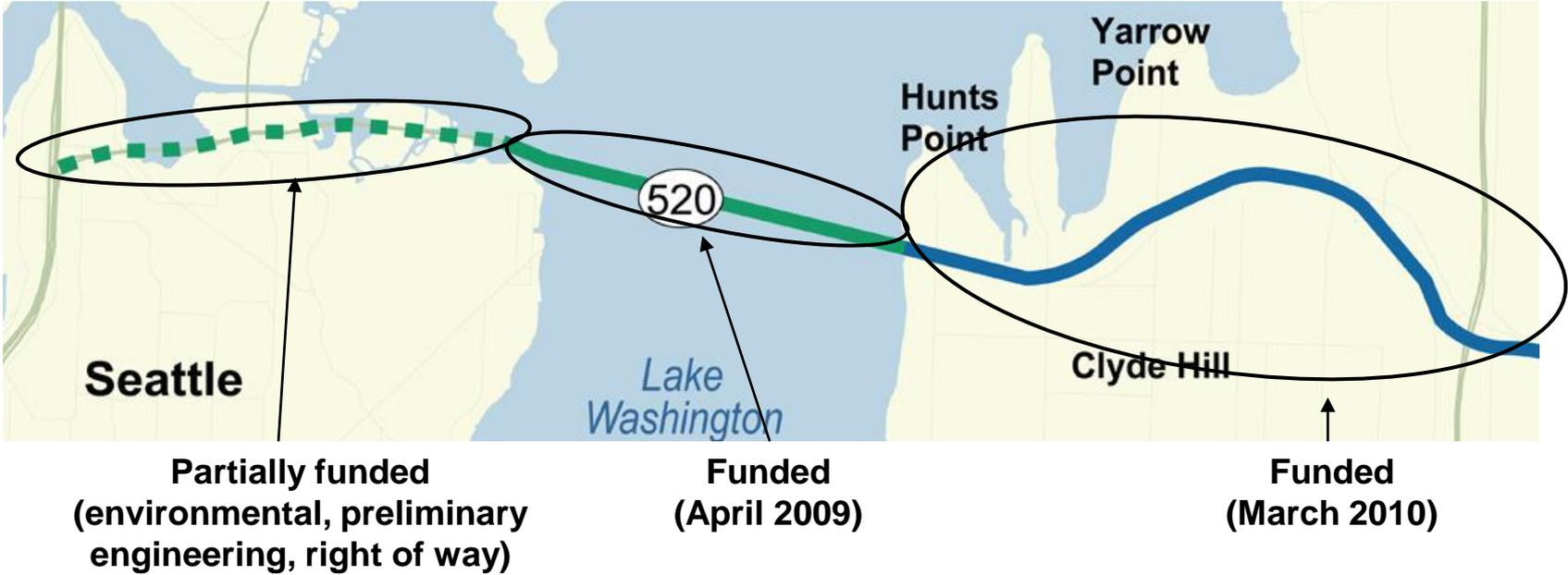
Vulnerable to Earthquakes



The inside of a hollow bridge support column that was damaged by a barge in 1999.

SOURCE: Photos from <http://www.wsdot.wa.gov/Projects/SR520Bridge/Photos/Damage.htm>.

What is funded for \$2.43 billion?

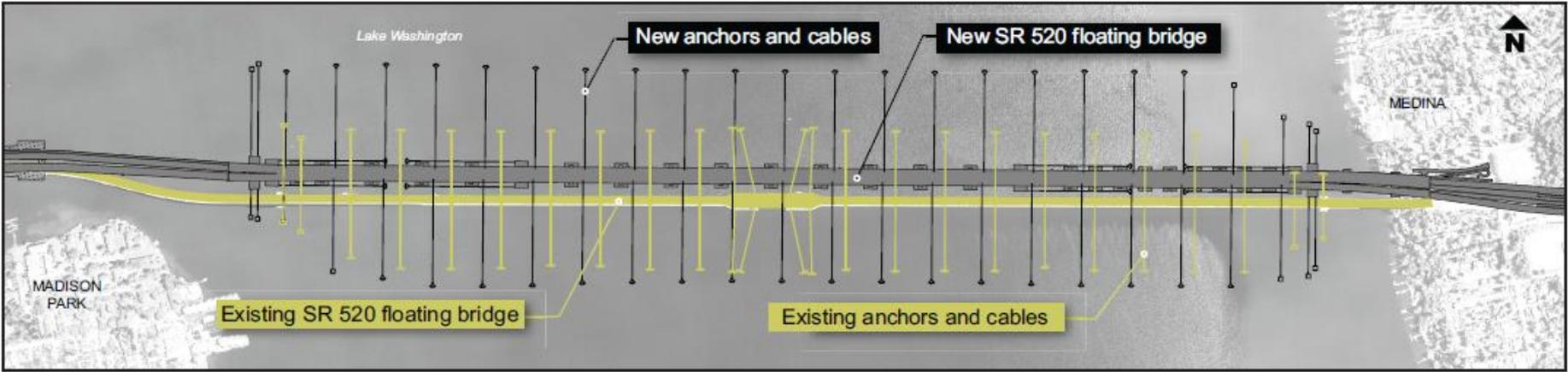


Program budget: \$4.65 billion

What's funded: \$2.43 billion (includes sales tax deferral)

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

Floating bridge and landings update



1 Build the necessary pontoons and anchor cables.

2 Tow pontoons from construction facilities to the Lake Washington area.

3 Outfit pontoons with a new roadway superstructure on top of each pontoon.

Floating bridge and landings update

4 Connect supplemental stability pontoons to longitudinal pontoons.

5 Anchor cross pontoons to lakebed to create the east and west ends of the new floating bridge.

6 Connect pontoons across Lake Washington and secure them with anchors.

7 Complete construction on lanes, shoulders, barriers and the bicycle/pedestrian path.

8 Connect new floating bridge to east and west approach bridges.

9 Open new floating bridge to traffic.

Note: Construction sequencing will be determined by the design-build contractor.

SR 520 program construction update

Eastside construction

- Construction began in April 2011.
- Crews have completed three passage culverts, Bellevue Way overpass demolition and Evergreen Point Road lid staging.



Pontoon construction

- Construction began in Aberdeen in February 2011.
- The pontoon casting basin is nearly complete and work is starting on the first cycle of pontoons.



SR 520, I-5 to Medina Project update

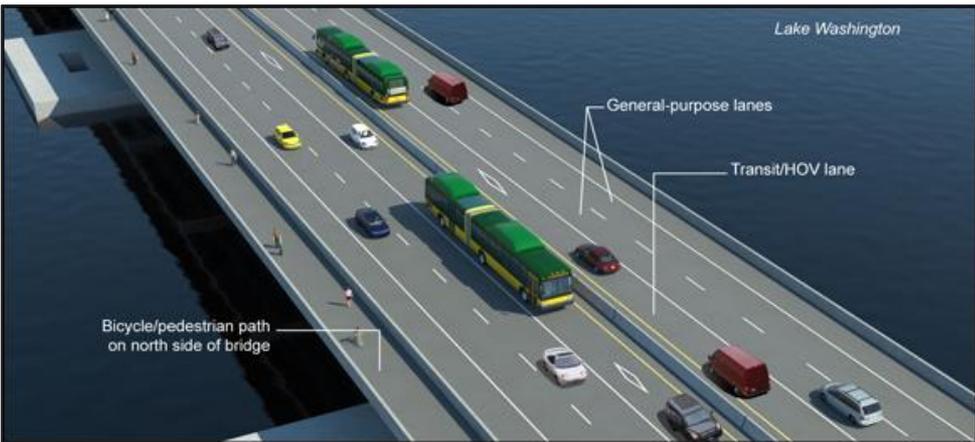
- ✓ **Spring 2011** – Published final EIS.
- ✓ **Summer 2011** – Received the Record of Decision

Fall of 2011 – Seattle Community Design process

Early 2012 – All permits received

2012 – Begin construction of new floating bridge

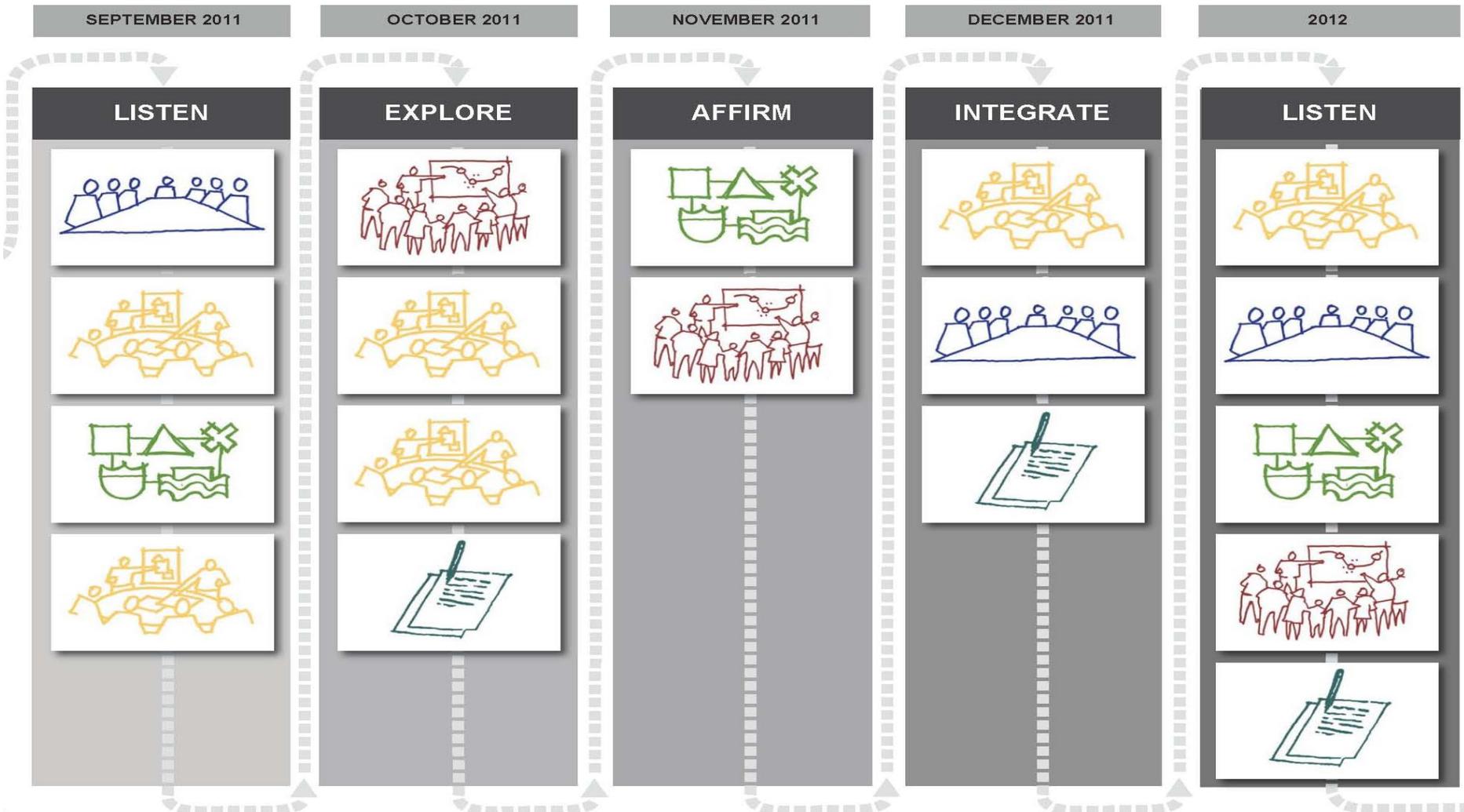
2014 – Open new floating bridge to drivers



SR 520 design: City Council input incorporated

- ✓ Designed the corridor to accommodate no more than six-lanes
- ✓ Reduced width of Portage Bay Bridge
- ✓ Located urban interchange at Montlake
- ✓ Expanded the lid at Montlake
- ✓ Provided dedicated transit/HOV lane on Montlake Boulevard
- ✓ Eliminated Arboretum ramps
- ✓ Lowered height of the floating bridge
- ✓ **Began planning for the implementation of Arboretum traffic management and calming**
- ✓ Ensured the new bridge is designed to accommodate future light rail
- ✓ **Provided funds for Montlake Triangle Project**
- ✓ **Set triggers based for determining necessity of Second Montlake Bridge**
- ✓ **Neighborhood traffic management planning**

Seattle Community Design Process



Next steps

- Continued construction in Aberdeen, on the Eastside, and on Lake Washington (beginning in 2012)
- I-5 to Medina Project: Momentum in many arenas discussed today
- Seattle Community Design Process: Next public session on Nov. 9
- Ongoing coordination with City of Seattle



Questions?

For more information:

Visit: 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