How the SR 520 Program is meeting the goals of *Results WSDOT*

Community and stakeholder engagement

SR 520 improvements owe their design, in large part, to strong interaction and communication between WSDOT, communities on both sides of Lake Washington, and the many regulatory agencies, jurisdictions and institutions interested in the corridor. Open, two-way public engagement – from the earliest planning sessions of the late 1990s to the myriad hearings, open houses and design forums of the 2000s to the refinements still being discussed today – is helping WSDOT rebuild a highway to meet public needs and expectations. Public engagement, more than anything else, is responsible for:

- Dedicated transit-HOV lanes the full length of the corridor.
- Community-connecting highway lids that provide improved access to transit stops and local bicycle/ pedestrian paths.
- A regional, cross-lake bicycle and pedestrian path spanning the corridor's length.
- Significant environmental enhancements in parks, wetlands and other natural areas in the region.

Organizational Strength

- SR 520 teams share their experience, lessons learned and best-management practices to promote program continuity and success as one phase of construction nears completion and another phase begins.
- WSDOT integrates its people with consultant staff to promote more efficient and effective deployment of resources.
- SR 520 staff holds annual alignment workshops to review the program vision, share best-management practices, and ensure that teams coordinate and learn from each other.
- The SR 520 team employs practical design principles and Lean management strategies to establish organizational priorities, manage assets, and deliver least-cost transportation facilities.

For more information

Visit: www.wsdot.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
999 3rd Avenue, Suite 900
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Delivering Results on the SR 520 Program

STATE ROUTE 520

September 2014

An interim West Connection Bridge, at left, will link SR 520's new floating bridge with the highway's existing west approach structure, at right.

SR 520 Program implementing the *Results WSDOT* initiatives

For more than 50 years, State Route 520 has served as a vital link for the communities and economy of Central Puget Sound. Today, however, much of the highway's infrastructure is structurally vulnerable, and its traffic lanes often congested. In response, the SR 520 Bridge Replacement and HOV Program is improving and expanding this cross-lake corridor to give future generations a stronger, safer, higher-capacity urban highway.

Building the world's longest floating bridge and its adjoining corridor improvements takes time and resources. It also presents opportunities to learn and improve as the work unfolds. Under Secretary Peterson's leadership, WSDOT is striving to do just that – to be the best at building and maintaining a sustainable, integrated transportation system. And to that end, the agency has embarked on a reform initiative and a targeted strategic plan for providing safe, reliable, cost-effective transportation solutions throughout the state.

The plan, *Results WSDOT*, emphasizes prioritized, strategic investments, integration of all transportation modes, environmental stewardship, organizational strength within the agency, community engagement, and expanded use of smart technologies. Read on to discover how the SR 520 Bridge Replacement and HOV Program is putting WSDOT's reforms and strategic direction into action.

SR 520 Program Overview

SR 520 connects tens of thousands of people to a regional community and economy every day. Residents use the corridor to commute to work, school and recreation, while businesses depend on a reliable cross-Lake Washington corridor to deliver and receive goods and services.

The SR 520 Bridge Replacement and HOV Program will enhance safety by replacing the vulnerable floating bridge and keep the region moving with vital highway improvements throughout the corridor.

The 12.8-mile highway extends from I-5 in Seattle to SR 202 in Redmond.

Washington State Department of Transportation

How the SR 520 Program is meeting the goals of *Results WSDOT*

Washington State Department of Transportation

Strategic investments

Key changes and refinements in SR 520 corridor design are reducing construction costs and maximizing funding to replace vulnerable highway structures, enhance public safety, and improve mobility. A few examples:

- **A cost-effective preferred alternative**
  In 2010, after more than a decade of public process, WSDOT selected a preferred design for the SR 520 corridor that reflects community values and achieves key transportation goals. With strong public input, the design process screened out options that could have doubled the project's cost.
- **Narrower lanes and shoulders**
  Through practical design, the highway's inside shoulder is being narrowed from 10 feet to four feet in select areas where traffic safety and mobility are not affected. The change saves millions of dollars in construction costs by reducing concrete, steel and other bridge materials.
- **Fewer bridge columns**
  In consultation with the Seattle Design Commission, WSDOT is reducing the number of permanent, in-water columns for the 1.2-mile-long West Approach Bridge North, which will connect the new floating bridge with Seattle's Montlake/UW neighborhood. This design refinement halves the amount of concrete needed for the bridge, which reduces costs, enhances the environment, improves bridge aesthetics, and supports sustainability goals.

Multimodal transportation

The SR 520 program is making significant investments in integrated, multimodal transportation, including:

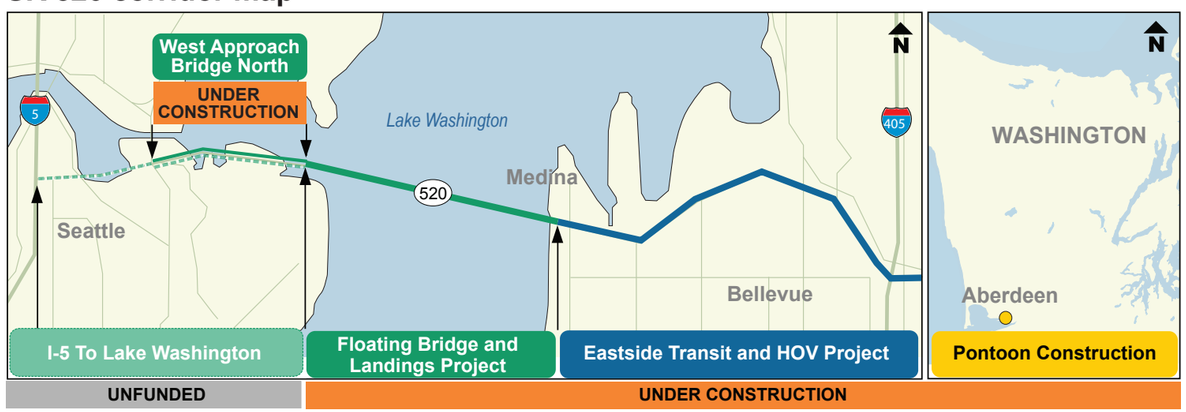
- New, dedicated transit/HOV lanes from I-5 to I-405 to enhance mobility for carpools and transit riders.
- New median transit stops and direct-access ramps for safer, faster, more reliable transit service.
- A new bicycle and pedestrian path between Seattle and the Eastside, with connections to local and regional bike trails.
- New highway-overpass lids that reconnect communities and improve access to transit stops and bicycle-pedestrian paths.

Elevator at new Eastside median transit stop.

Bus platform at new Eastside transit stop.

Rendering of bicycle and pedestrian path on new floating bridge.

SR 520 corridor map



Environmental stewardship

Sustainability and environmental stewardship are engrained in the SR 520 program—from design through construction. For example:

- The floating bridge contractor developed and implemented a sustainability plan to reduce, reuse and recycle construction materials, and manage resources to lower greenhouse gas emissions. The requirement is producing significant results, such as a 260-ton reduction in rebar and 12,500-cubic-yard reduction in concrete needed for the new bridge.

Major enhancements to Evans Creek wetlands, in Redmond, from SR 520 program

New fish culverts under SR 520 are designed to aid fish migration.

- Eight new culverts were built on the Eastside—five running beneath SR 520—to improve fish migration in local streams.
- Construction contracts incorporate mitigation measures to improve local park trails, develop new public park lands, restore wetlands, improve water quality, and restore salmon habitat.
- The West Approach Bridge North contract contains financial incentives for the contractor to exceed environmental regulations and provide a more sustainable construction approach.

Smart technology

The program is deploying new technologies to manage highway demand, improve traffic flow, increase highway safety, and provide better, real-time traveler information.

- All-electronic tolling is employed on the SR 520 bridge—the nation's first all-electronic tolling of an existing transportation facility. *Good To Go!* all-electronic tolling will continue when the new floating bridge opens in 2016.
- Smarter Highway technology is used along the SR 520 corridor to display variable speed limits, lane status, and real-time traffic information. The technology increases roadway efficiency and helps drivers travel safer and smarter.
- Electronic sensors in the new floating bridge's pontoons, linked to the bridge maintenance facility by fiber-optic cable, instantly detect any water inside the pontoons.

Smarter Highway signage along SR 520 corridor.

All-electronic tolling on SR 520 floating bridge.