

I-405 MASTER PLAN



Regional Consensus

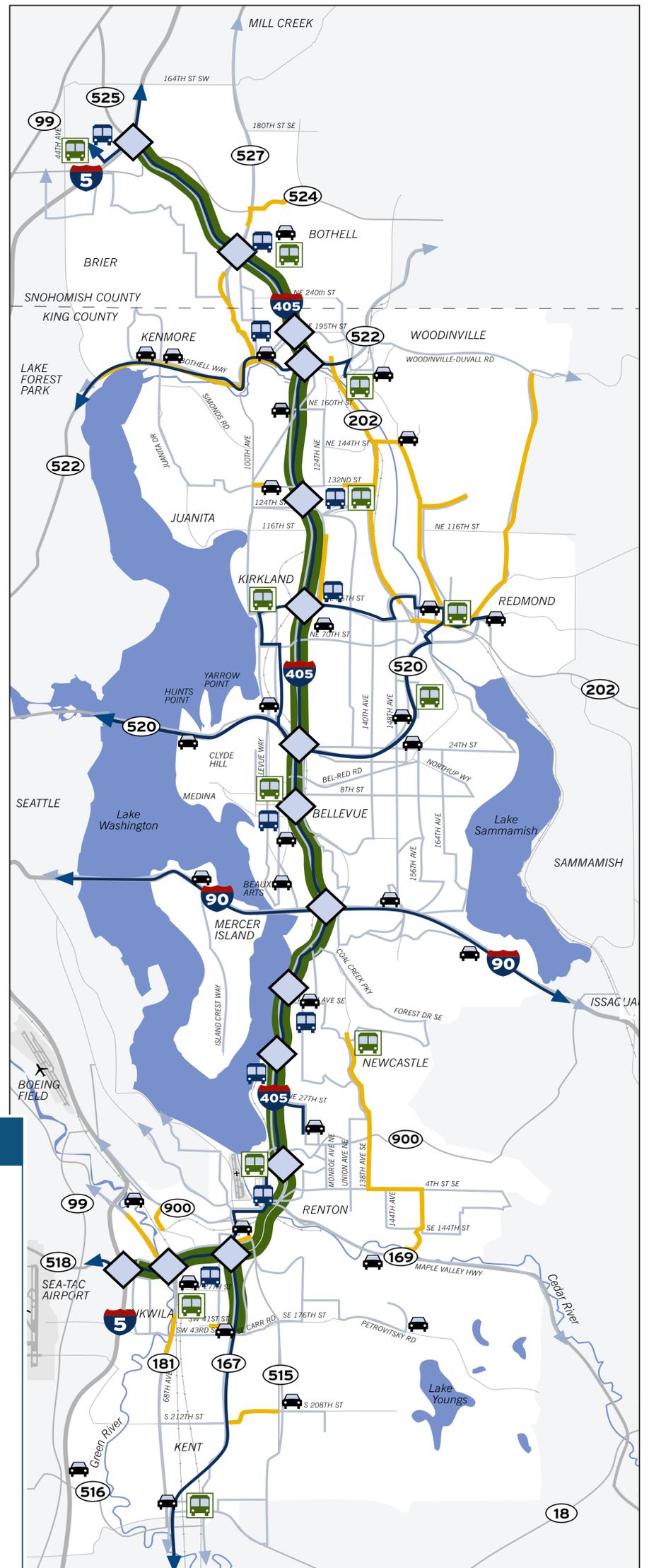
- EIS Record of Decision, 2002

Roadways

- 2 new lanes in each direction
- Local arterial improvements

Transit & Transportation Choices

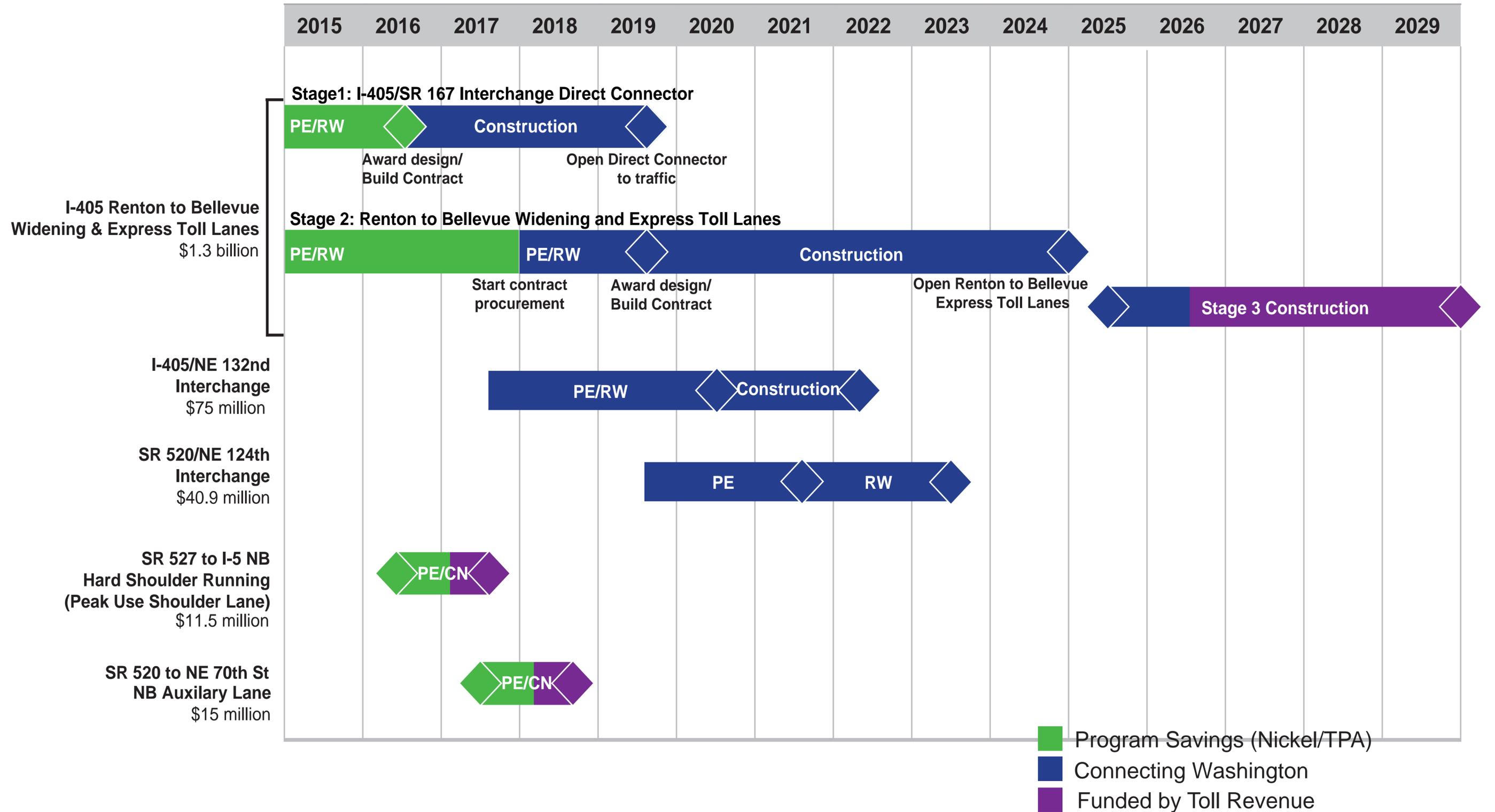
- Bus Rapid Transit system
- New transit centers
- 50% transit service increase
- HOV direct access ramps and flyer stops
- Potential managed lanes system
- 5000 new Park & Ride spaces
- 1700 new vanpools
- Environmental enhancements



Legend	
	Added Freeway Lanes & Connections Two new lanes added each direction on I-405 and interchanges upgraded, key chokepoints fixed at SR 167, I-90, Kirkland and Bothell
	Bus Rapid Transit (BRT) Service New bus rapid transit system deployed
	Transit Service 50% Transit service increase with HOV lane and direct access improvements
	Arterial Improvements Local arterials improved
	HOV Lane Access Point
	BRT Stations Ten new BRT stations
	Transit Centers Nine transit centers
	Park-and-Ride Lots 5,000 new park-and-ride spaces

Multimodal, multi-agency plan for the corridor adopted in 2002

CURRENT DELIVERY SCHEDULE



Upcoming funded projects in the I-405 Corridor

PROJECT OVERVIEW



What will WSDOT build?

The primary focus of this project is building a new peak use shoulder lane (sometimes known as hard shoulder running) which will add new capacity for general purpose traffic.

The lane will extend for about 1.8 miles between State Route 527 and Interstate 5 in the northbound direction only. WSDOT will also construct one new noise wall along northbound I-405.



This visualization shows how the peak use shoulder will operate when open.

Estimated cost: \$11.5 million (construction funded by I-405 toll revenue)

Estimated open to traffic: Summer 2017



The peak use shoulder lane will extend 1.8 miles between SR 527 and I-5.

I-405 Northbound Peak Use Shoulder Lane, State Route 527 to Interstate 5

PEAK USE SHOULDER LANE



When traffic is heavy during the afternoon peak period, general purpose traffic will be able to travel on the right shoulder, creating one additional lane of capacity.

Overhead lane control signs will display:

- a green arrow indicating the lane is open to traffic
- a yellow arrow indicating caution and merge to the left
- a red X indicating the shoulder is closed to traffic

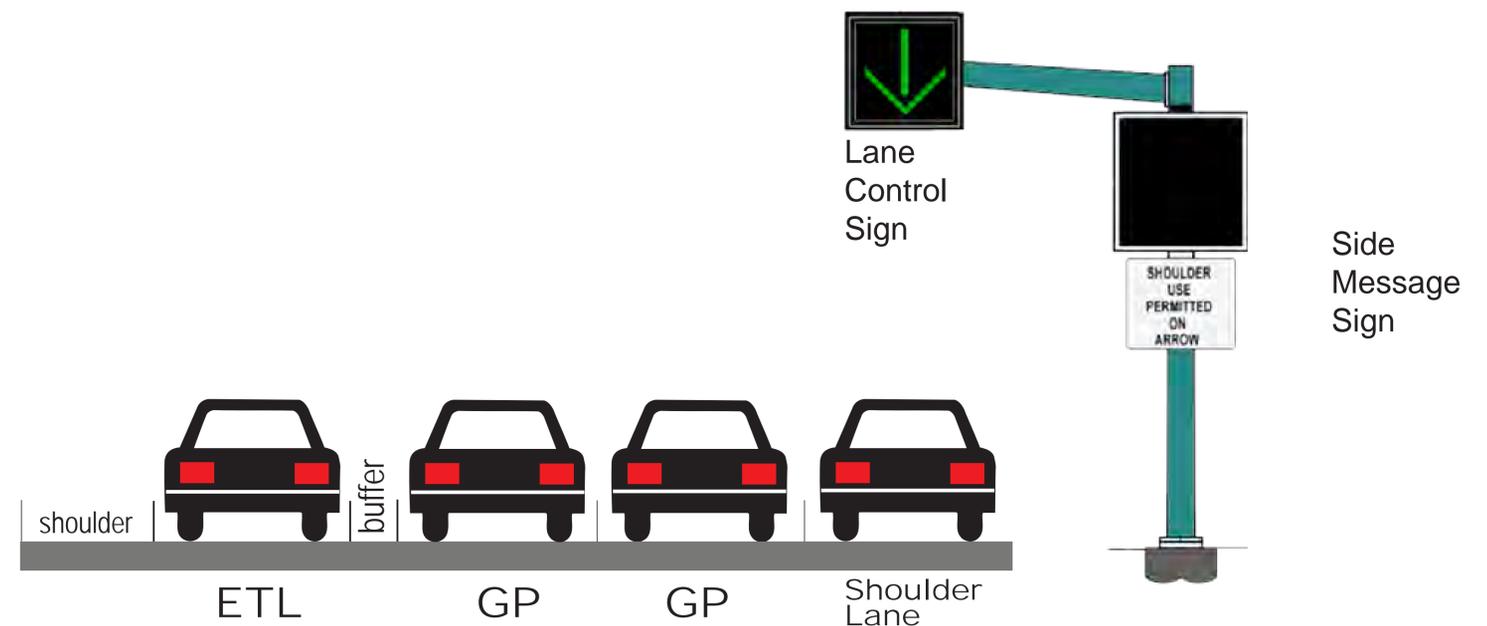
The side message sign will provide additional messages about traffic conditions, such as: Shoulder Blocked Ahead, Heavy Merging Traffic, Slow Traffic Ahead.

The shoulder is needed at other times for maintenance, emergency services and vehicle breakdowns.

In the event of an emergency or blocking vehicle during lane operations, the peak use shoulder lane will be closed via the lane control signs until the problem can be cleared.



The peak use shoulder lane will extend 1.8 miles between SR 527 and I-5.



Drivers will be able to use the peak use shoulder lane during heavy traffic



CHANGES IN TRAFFIC CONGESTION

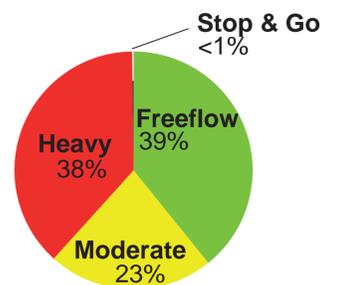
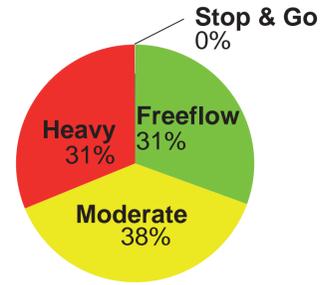
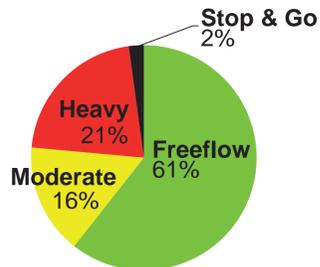
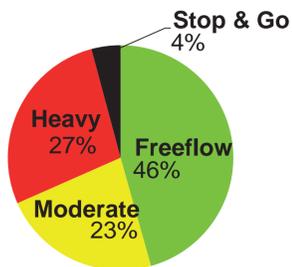
April-June 2015 to April-June 2016

BEFORE

AFTER

BEFORE

AFTER



SOUTHBOUND

Weekdays, 5-9 a.m.

BEFORE
APRIL - JUNE 2015

AFTER
APRIL - JUNE 2016

NORTHBOUND

Weekdays, 3-7 p.m.

BEFORE
APRIL - JUNE 2015

AFTER
APRIL - JUNE 2016

Where are you traveling on I-405?



5 am 7 am 9 am

5 am 7 am 9 am

3 pm 5 pm 7 pm

3 pm 5 pm 7 pm

When are you traveling on I-405?

ENVIRONMENTAL REVIEW



As part of this project, WSDOT plans to:

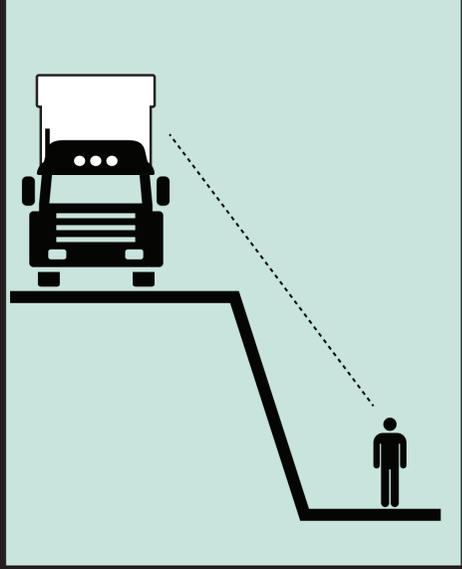
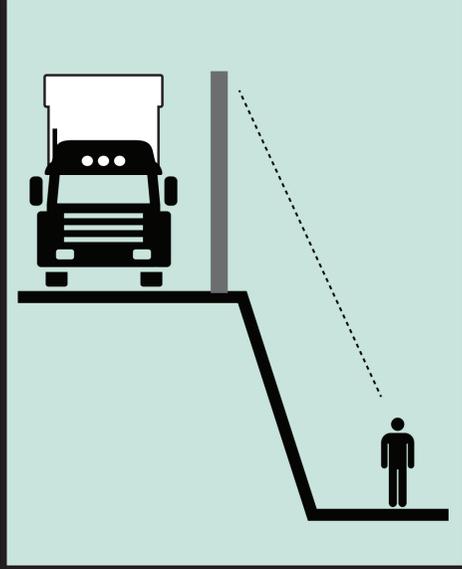
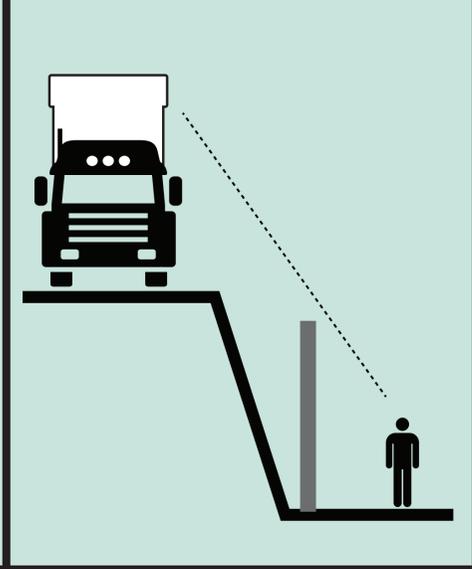
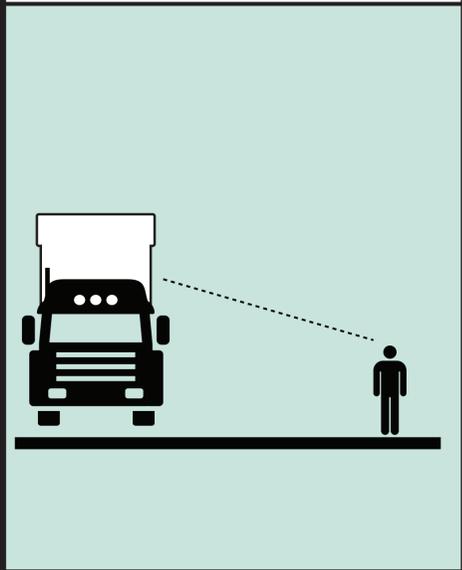
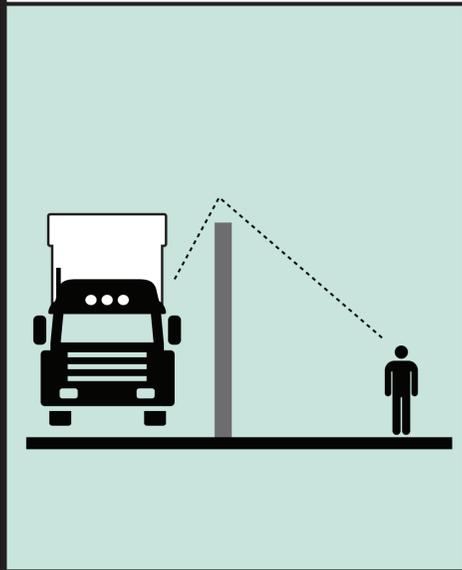
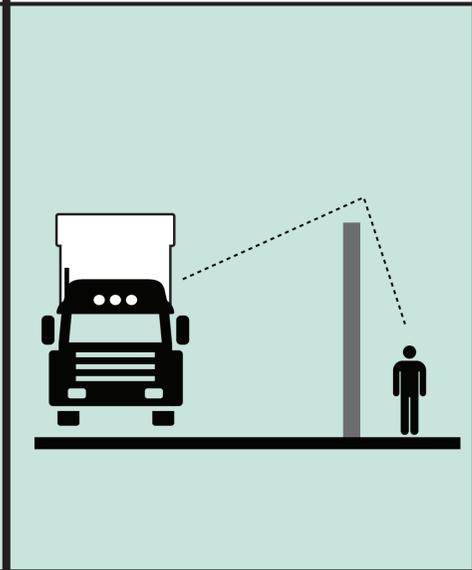
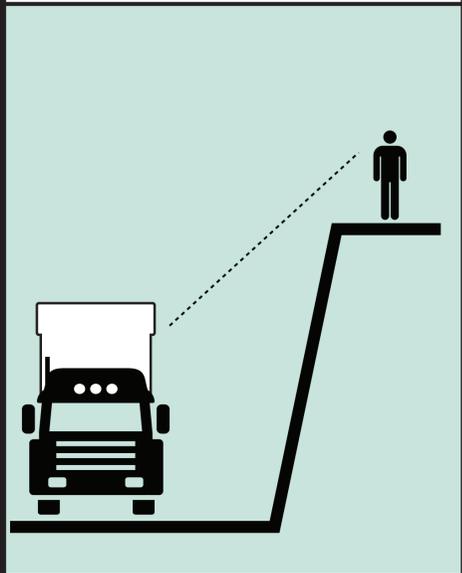
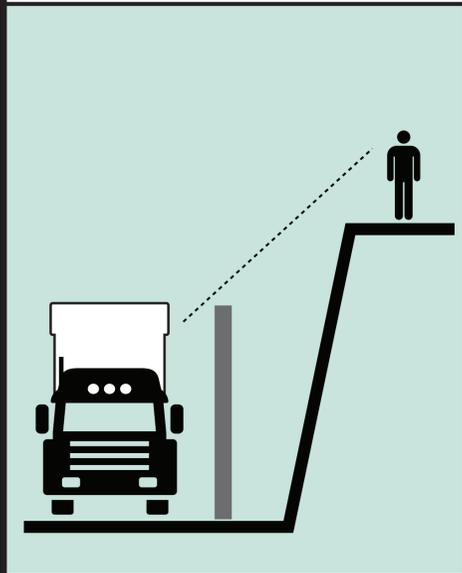
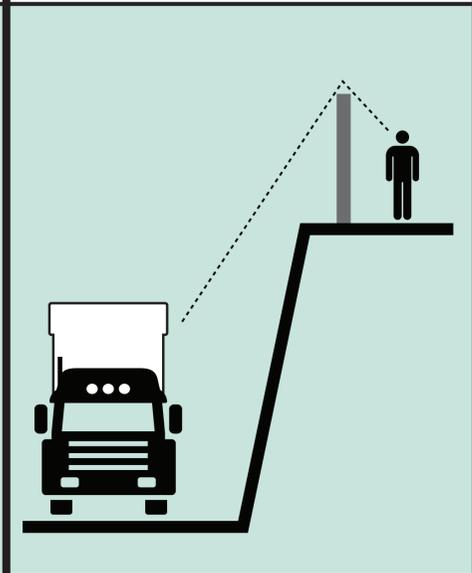
- build one new noise wall along northbound I-405
- remove selected trees and shrubs and replant them in the project area
- employ Best Management Practices during construction to avoid or minimize any erosion, air quality, spill and noise concerns

This project has no wetland or stream impacts.

Minor temporary impacts to land adjacent to wetlands (buffers) will be replanted in the project area.



HOW DO NOISE WALLS WORK?

<i>Barrier Roadway</i>	NONE	NEAR SOURCE	NEAR RECEIVER
ELEVATED	May be some noise reduction by terrain	Barrier is very effective	Barrier has no effect
			
LEVEL	Noise travels directly to the receiver	Barrier is effective	Barrier is effective
			
DEPRESSED	May be some noise reduction by terrain	Barrier has no effect	Barrier is effective
			

NOISE WALL REQUIREMENTS



WSDOT complies with Federal Highway Administration (FHWA) regulations for noise walls, following a three-step sequential process guided to determine:

- Whether a location has high enough future noise levels (exceeding 66 dBA) to warrant further consideration for a noise wall
- Whether it is feasible to construct the noise wall (i.e., whether the proposed noise wall will provide a substantial reduction in noise and other constructability issues; the home's distance from the highway and topography relative to the roadway can play a role in this factor)
- Whether it is reasonable to construct the proposed noise wall (based on the cost to construct the noise wall per residence affected; density of homes plays a role in this factor)

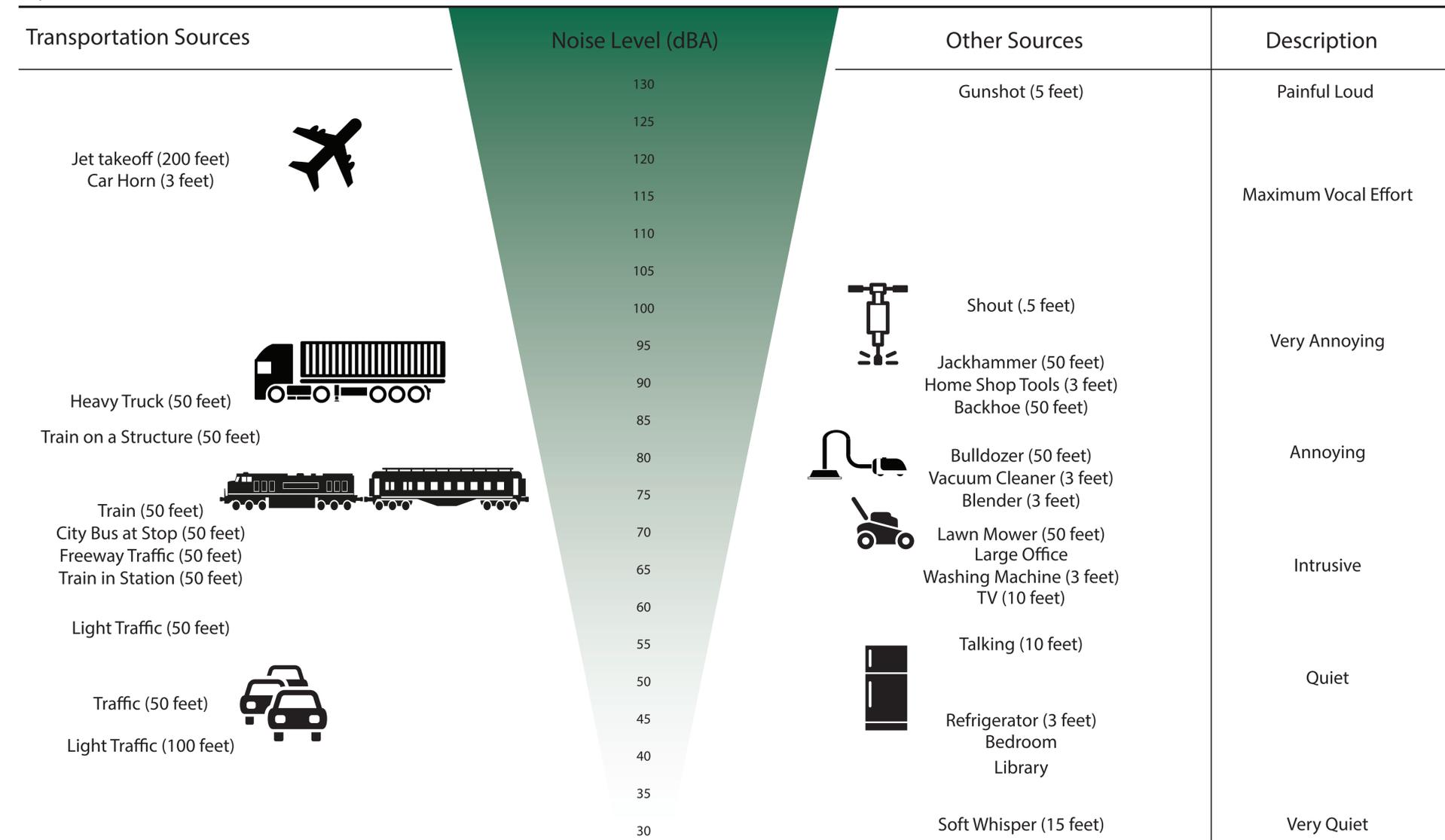


The community side of a completed noise wall as part of the Bellevue braided ramps project

WHAT IS A DBA?

The first step in the noise wall evaluation process is to see whether a location has high enough future noise levels (exceeding 66 dBA) to warrant further consideration for a noise wall. But what is a dBA?

Typical Sound Levels



Sources: USDOT 1995; EPA 1971, 1974

Note: dBA = A-weighted decibel

PROPOSED NOISE WALL



Where will the noise wall in the area be built?

The new noise wall will be located within the WSDOT right of way, just east of northbound I-405. The noise wall will start near Richmond Road and will extend north parallel to Bartlett Road (see map at right).

How big will the noise wall be?

The new noise wall will be approximately 9 feet in height when standing at the WSDOT right of way line and will be about a quarter of a mile long.

How much noise reduction is expected from the new noise wall?

The amount of noise reduction neighbors may experience will depend on the height and length of the wall at their particular location, as well as the distance and elevation between homes and the wall. Neighbors closest to the noise wall will experience the greatest reductions in noise.



Example of I-405 area noise wall



The proposed noise wall would extend from north of Richmond Road to Bartlett Road.

WSDOT plans to build one new noise wall along northbound I-405

I-405 EXPRESS TOLL LANES



Goals of express toll lanes

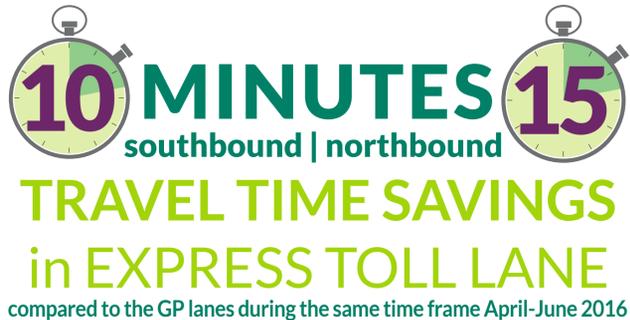
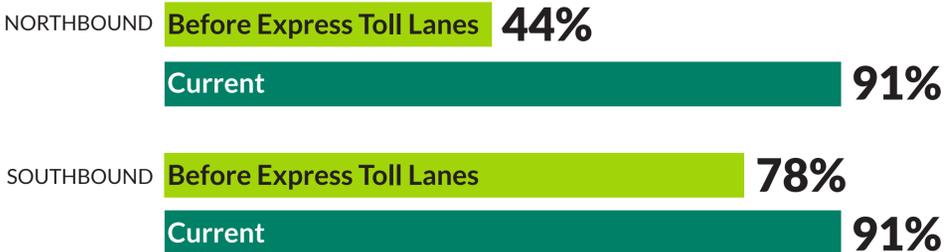
Performance Update • Sept. 27, 2015 - June 30, 2016

○ Improve speed and reliability in the HOV lanes



Drivers using the express toll lanes are **saving time**

Speeds greater than 45 MPH

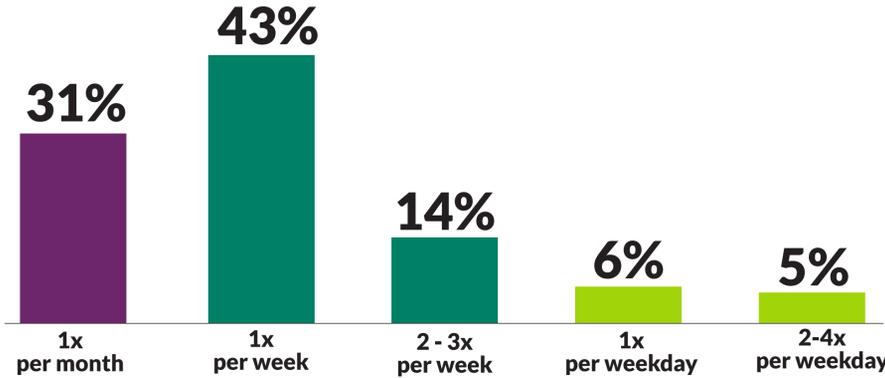


○ Offer more choices to drivers



Drivers continue to **choose to use the express toll lanes** when they need them

Express toll lane travel frequency in June



11 million trips
in the first nine months

80% of toll rates paid are at or below **\$4**

○ Fund future corridor improvements



Funded **peak use shoulder improvement** within first year of operations

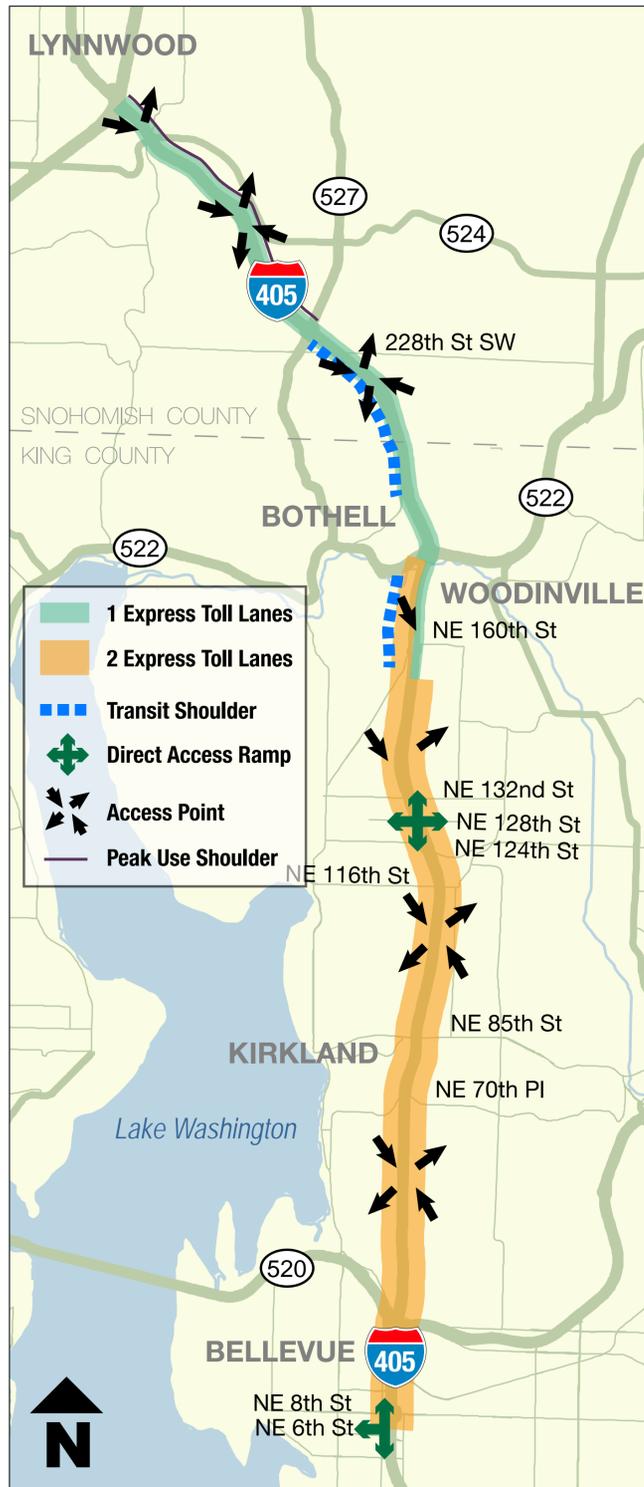
\$10 million reinvestment into the I-405 corridor

I-405 EXPRESS TOLL LANES



Quick Facts

- Opened Sept. 27, 2015
- 17 miles of express toll lanes
- Operation hours:
5 a.m. to 7 p.m. Monday – Friday
- Toll Rates
 - Minimum Toll Rate \$ 0.75
 - Maximum Toll Rate \$ 10.00
- Carpool Policy
 - 3+ carpools with Flex Pass exempt at all times
 - 2+ carpools exempt except 5-9 a.m. and 3-7 p.m. on weekdays



EXPRESS TOLL LANES	
NE 128th St	OPEN
NE 85th St	OPEN
NE 6th St	OPEN
OPEN TO ALL	

