I-90 Corridor Planning Study
Bellevue to North Bend

Carol Hunter
Project Manager
WSDOT, Urban Planning Office

Paula Hammond
Secretary of Transportation

Dave Dye
Deputy Secretary

Steve Reinmuth
Chief of Staff

Eastgate Subarea Plan
Citizen Advisory Committee
January 6, 2011
Bellevue City Hall
5:30 pm
I-90 Corridor Plan: Bellevue to North Bend

Corridor Plans consider current and future population, employment, land use, and travel characteristics to identify near and long term cost effective multimodal transportation improvements that can be implemented over the next 20-30 years as funding from variety of sources becomes available.
Moving Washington is our three-pronged approach to fight congestion and combat climate change

Adding capacity strategically

Adding new capacity to our currently over-stressed transportation system removes choke points and bottlenecks, completing critical corridors; improve reliability, throughput for freight, commuters and transit partners.

Operating roadways efficiently

Maximizing the use of the existing system and using available technology to communicate with and direct traffic, improves the system’s performance and generates revenue through variable pricing and other traffic management tools.

Managing demand

Providing more travel choices and options for people and freight helps improve the efficiency and effectiveness of our transportation system.
Active Traffic Management: making I-90 smarter with variable speed limit and queue warning signs (Bellevue to Issaquah)

Planning Level Cost Estimate: $52 Million

- Variable speed limits
- Lane control
- **Automatic, instant traffic information**

Signs every half mile warn of slower traffic and blocked lanes ahead to prevent collisions that cause at least 25% of congestion.
Convert Existing HOV Lanes into High Occupancy Toll Lanes (HOT)

Planning Level Cost: $14 M ($2009)

Transportation 2040 Policy (Adopted May 20, 2010)
“Implement tolling of the HOV System by 2020”

December 2009 SR 520 Legislative Workgroup Recommendation:
“The creation of, and early tolling of HOT lanes on I-90 as soon as is practicable”
Westbound Auxiliary/Add Lane: SR 900 to Eastgate Options
- Hard Shoulder Running w/ Active Traffic Management

- Full Standards
  Planning Level Cost Estimate: $94 M ($2009)

Eastbound Auxiliary/Add Lane: Lakemont to Eastgate Options
- Hard Shoulder Running with Active Traffic Management
  Planning Level Cost Estimate: $13M ($2009)

- Full Standards
  Planning Level Cost Estimate: $22M ($2009)

Eastbound Auxiliary Lane
1 full lane of traffic enters Eastbound I-90 at the interchange and has an immediate merge on to the mainline.

Westbound Auxiliary Lane
Westbound congestion in the morning peak is caused by high volumes and merging conflicts at the interchange areas.
I-90 Eastbound Speed Profile (2005 and 2015)

Eastgate Interchange

1 full lane of traffic enters I-90 in the p.m. peak hours and has to merge into the through lanes in a very short distance. This merge causes congestion back up to Richards Road.

By providing an eastbound Auxiliary Lane, vehicles will have more space to enter the mainline traffic resulting in a smoother merge and less congestion at this point.

2005 & 2015 PM Peak
3:15 to 6:45 p.m.
Eastbound Direction

2005 Existing
Max. Trav. Time: ~10 min
Avg. Trav. Time: ~10 min
Throughput: ~19,000 veh/3 hr

2015 No Action
Max. Trav. Time: ~13 min
Avg. Trav. Time: ~10.5 min
Throughput: ~18,000 veh/3 hr

2015 Action
Aux Lane Only
Max. Trav. Time: ~10 min
Avg. Trav. Time: ~9.5 min
Throughput: ~18,000 veh/3 hr
I-90 Westbound Speed Profile (2005 and 2015)

Because of the high volumes entering westbound I-90 in the morning peak hours and the east end HOV Terminus, congestion occurs between Front Street and the Lakemont Interchanges.

By providing a westbound Auxiliary Lane, drivers have more space to merge onto the mainline and there is room to for an HOV add lane near SR 900.
West Lake Sammamish Parkway Roundabouts

West Lake Sam Roundabouts
Phase 1: Widen Existing Roundabout
Cost Estimate: $4.1 M ($2009)

Phase 2: Add Roundabout at
the westbound ramp terminal (by 2030)
Cost Estimate: $1.4 M ($2009)

There are over 195 Roundabouts in Washington State and many more planned.

Benefits of Roundabouts
• Reduces Delay – No stopping at red lights
• Improves Safety – No red light to beat (significant reduction in serious and fatal collisions)
• Less Expensive – No hardware, electricity and low maintenance
Lakemont Eastbound Off- Ramp Modification

Lakemont Eastbound Slip Ramp (by 2030)
Planning Level Cost Estimate: $2.3M ($2009)

Vehicles using the eastbound off-ramp at Lakemont will have an increasingly difficult time making a right hand turn on to Lakemont during the p.m. peak hours because of the heavy flow of southbound traffic on West Sammamish/Lakemont.

A slip ramp on the existing eastbound to northbound West Lake Sammamish off-ramp will prevent traffic from backing up on the off-ramp.
Questions?

Contact Information:

Carol Hunter, Project Manager
WSDOT, Urban Planning Office
(206) 464-1219
hunterc@wsdot.wa.gov

Project website:
http://www.wsdot.wa.gov/planning/RDP/I90/EastgateTo465th