

WSDOT's Corridor Sketch Initiative is a collaborative planning process with agency partners to identify performance gaps and select high-level strategies to address them on the 304 corridors statewide. This Corridor Sketch Summary acts as an executive summary for one corridor. Please review the User Guide for Corridor Sketch Summaries prior to using information on this corridor:

I-5: I-405 Jct (Tukwila) to I-90 Jct (Seattle)

This 13-mile long north-south corridor is located in the Seattle area and is comprised of five separate segments. The corridor runs between the Interstate 405 junction in Tukwila and the I-90 junction in Seattle. The five segments that make up the corridor are I-5, I-5 Frontage Road, I-5 HOV Southbound 1 and 2, and I-5 HOV Northbound. The majority of the corridor's character is densely urban. Land uses along the corridor include single-family residences in parts of Tukwila, south Seattle, and along the eastern side of the corridor. Commercial and industrial land uses are located through parts of Tukwila and the SODO neighborhood of Seattle on the western side of the corridor. Southcenter Mall and the Seattle-Tacoma International Airport are located at the southern terminus, the Museum of Flight is located mid-corridor, and CenturyLink Field and T-Mobile Park are at the northern terminus. Shipping and ferry terminals are located at the north end. This corridor passes through multiple Seattle communities and parallels State Route 99, both the Union Pacific Railroad and BNSF Railway, and the Duwamish Waterway.



Current Function

I-5 is the major north-south route along the U.S. west coast, connecting most major cities between Canada and Mexico. The corridor is a freight route, seismic lifeline route, and part of the national Strategic Highway Network. The corridor provides vital connections for commuters and freight traveling in western Washington as it provides direct connections to a number of other state routes including I-405, SR 518, SR 900, SR 599/99, and I-90. The corridor also provides local access for commuters in Tukwila and Seattle, as well as access for freight traveling through the Port of Seattle. The corridor accommodates commuters heading to and from Seattle and tourist traffic traveling to the Museum of Flight at Boeing Field and other attractions. The corridor accommodates commuters traveling to the Seattle-Tacoma International Airport and downtown Seattle to ferry terminals. The corridor passes closely to King Street Station, Stadium Station, and International District Station, which offer bus, light rail, Sounder, Amtrak, and Greyhound connections. King County Metro and Sound Transit provide service throughout the corridor. There are no bicycle or pedestrian facilities on the corridor and one park and ride is accessible from the corridor.

Future Function

Based on the projected population, land use, and economic trends, the future function of this corridor is expected to remain the same.

Highlights and Performance

This section of I-5 is generally an eight-lane, divided highway. Throughout the entire corridor, HOV lanes are present on both northbound and southbound lanes, as well as exit only lanes. Two spaghetti bowl interchanges are present at each end of the corridor. The annual average daily traffic on this corridor is highest just before the I-5/I-90 interchange and lowest at the I-5/I-90 interchange.

What's working well?

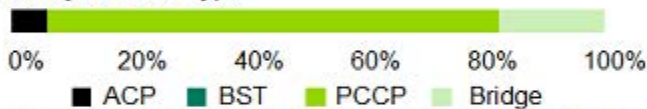
- Roughly 91% of surveyed pavement on the corridor is in fair or better condition.
- There are many multimodal opportunities on the corridor, such as transit centers, freight distribution centers, and ferries.
- There are existing noise walls in place along the corridor.

WSDOT monitors the state system in ongoing efforts to track asset performance. For this corridor, WSDOT finds:

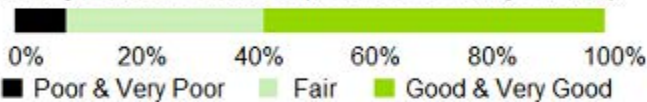
High	Low	
241,295	6,779	Annual Average Daily Traffic (AADT)
12.2%	7.3%	Bus/Truck Percent
123.18		Number of Lane Miles
0		# of Signalized/Stop Controlled Intersections
\$272,840,000		Corridor Investments (2005-2016)

Preservation

Roadway Surface Type



Roadway Surface Condition (Percent of Surveyed Area)



Corridor Bridge Preservation Needs

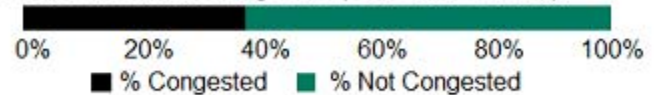


What needs to change?

- Roughly 38% of this corridor experiences congestion.
- The corridor is experiencing rapid growth in travel demand and may exceed future traffic capacity.
- The Duwamish River presents potential flooding hazards.
- There are 41 bridge preservation needs, 30 of which are seismic retrofits.

Mobility

Percent of Corridor Congested (Statewide Screen)



Environment

	Protect	Restore/ Enhance/ Assess
Fish Barriers	50% Passable	50% to Do
Noise Walls	100% Built	0% Proposed
Chronic Environmental Deficiencies	0% Resolved	0% Unresolved
Wildlife Connectivity	0 Structures in Place	0 High Priority Miles
Stormwater Treatment	30 BMPs	Retrofit Prioritization in progress
86.3	% of Corridor with high potential for increased Climate Impacts	
2	Wetland Mitigation Locations	
None	Historical Bridges	

1) 2015 data unless otherwise noted. 2) For more information see the User Guide for Corridor Sketch Summaries at <http://bit.ly/WSDOTcorridorsketch>

What we heard from our partners

WSDOT collected feedback from agency partners. Key themes included:

- Partners are proposing two light rail station. Both projects would provide new infill stations on the Central Link line.

Strategies

WSDOT identified the following strategies and associated actions to keep the corridor working well and address performance gaps. Regional partners collaborated on high-level mobility strategies. The identified strategies are not meant to be all-inclusive, nor an established list of priorities. Further evaluation is needed before any strategy can be recommended as a solution to address performance. Project funding decisions will take place at the programming phase, and are subject to statewide prioritization. For more strategy information, visit the Corridor Sketch Summary User Guide.

Policy Goals / Strategies Description and Near-Term Actions

Economic Vitality

Under Development	<i>WSDOT will continue to work with partners in developing strategies to address economic vitality.</i>
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Environment

Protect and Maintain	<i>Protect and maintain existing assets that provide environmental function (these include WSDOT's mitigation sites, storm water systems, fish passable culverts).</i>
Enhance or Restore	<i>Enhance or restore natural areas and environmental functions associated with the multimodal transportation system.</i>
Fish Barrier Retrofit	<i>WSDOT has prioritized the removal of state-owned culverts that block habitat for salmon and steelhead. See interactive map of uncorrected fish barriers at http://www.wsdot.wa.gov/Projects/FishPassage/default.htm.</i>

Mobility

Assessment	<i>Further information about the proposed strategies can be found attached at the end of this document.</i>
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Preservation

Maintenance	<i>Based on expenditure history, it is expected that the top three activities will continue to be maintenance on sweeping and cleaning, catch basins, and snow and ice control.</i>
Pavement	<i>WSDOT has identified eight Pavement actions in the next six years encompassing 100% of the corridor.</i>
Structures	<i>WSDOT has identified two Structures actions in the next six years encompassing 16% of the corridor.</i>

Safety

Investment	<i>WSDOT has identified three Safety Investment actions in the next six years encompassing 19% of the corridor.</i>
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Stewardship

Planning	<i>Under Practical Solutions, the Corridor Sketch Initiative identifies corridor performance, and assesses alternative strategies to improve the quality, effectiveness, and efficiency of the transportation system.</i>
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This segment of I-5 is a primary north-south connection between the I-5/I-405/SR 518 interchange in the city of Tukwila and I-5/I-90 interchange in the city of Seattle. This route supports a large amount of commuter traffic in the morning and evening, as well as commercial and recreational users.

This segment experiences congestion during peak travel periods, especially at the I-5/I-90 interchange.

Corridor Segment Characteristics

- The AADT on this corridor in 2014 was 225,824.
- This segment is a T-1 Freight Corridor, carrying 70,940,000 tonnage of freight annually in 2015.

Contributing Factors

- Traffic demand exceeds capacity during heavy commuter and freight use particularly near interchanges, resulting in delay.
- In 2015, the HOV lanes in this segment failed to meet the established performance goal to maintain 45 mph for 90% of the peak hour. Between Federal Way and Seattle, the Northbound HOV lanes maintained 45 mph for 18% of the AM peak hour and the Southbound HOV lanes maintained 45 mph for 32% of the PM peak hour.

Mobility Strategies:

WSDOT compiled these strategies based on available information and existing plans. The agency will conduct engagement with its partners to further develop strategies for the corridor.

Operational Improvements

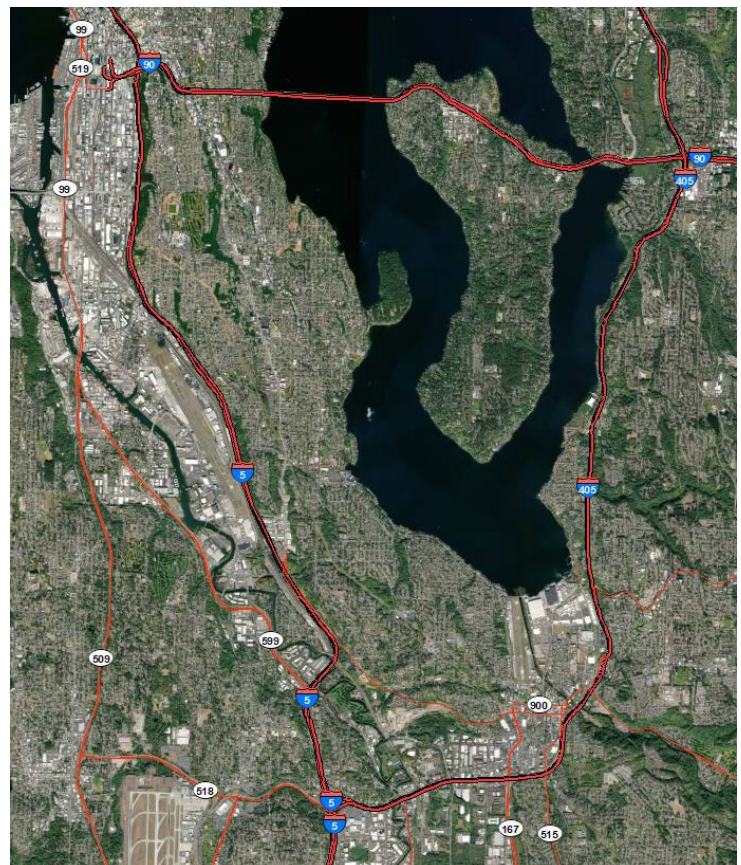
- Implement ramp metering and freight-friendly right turns to improve operational capability of intersections.
- Install intersection improvements to manage congestion during periods of high use.
- Continue to provide traveler information on roadway conditions to reduce delay.

Demand Management

- Increase transit service paired with highway improvements to provide travel time savings and reliability, and increase ridership.
- Improve modal access, options, and connectivity to reduce single occupant vehicle trips.

Further Study

- Continue studying additional transit options as proposed in the Sound Transit 3 measure to manage congestion.
- Additional strategies to reduce congestion will be determined through the Puget Sound Regional Council's regional planning processes and the I-5 System Partnership Framework.



For more information

To find out more information about this corridor or how to get involved, please contact:

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Washington State Department of Transportation's Corridor Sketch Initiative is a set of planning activities that engage our partners to define the context and performance information for all of the state's 304 highway corridors. The Corridor Sketch complements and supports regional planning processes in Washington. It is not intended to duplicate, substitute or compete with other planning efforts; nor is it intended to generate lists of projects.

Under 23 U.S. Code § 148 and 23 U.S. Code § 409, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

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