

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:

SR 500: I-5 Jct (Vancouver) to 162nd Ave/Fourth Plain Blvd

This 10-mile long segment of State Route 500 in Clark County is located just north of the Columbia River, and extends between the Interstate 5 junction in Vancouver and the NE Fourth Plain Boulevard/162nd Avenue junction. This segment of SR 500 is primarily suburban with predominantly low-density residential communities surrounding significant commercial areas such as Vancouver Mall, interspersed with pockets of open space. There are higher-density residential areas present on the western end of the corridor which is near downtown Vancouver. In the undeveloped areas and along the road shoulders, such as the cloverleaf interchange with I-205, the vegetation is a mix of conifers and deciduous trees, shrubs, and grasses. Burnt Bridge Creek parallels the western end of the corridor to the north and passes under it, east of the Saint Johns Boulevard interchange.



Current Function

SR 500 is a high-capacity connection between I-5 and I-205, and a major arterial for suburban and rural communities east of Vancouver. This segment of SR 500 is mainly a commuter corridor connecting suburban residents with employment centers in Portland, Oregon and Vancouver. Significant traffic contributors include the area's large industrial employers, shopping centers, schools, and employment and services in Portland. SR 500 also connects users to recreational opportunities in the Columbia River Gorge. This route could serve as an alternate to SR 14 between Vancouver and Camas. C-TRAN offers bus and vanpool service and has a transit center at the Vancouver Mall. C-TRAN also operates a bus rapid transit line west from the Vancouver Mall Transit Center along Fourth Plain Boulevard, parallel to SR 500. Shoulders, side paths, and sidewalks are available for bicyclists and pedestrians only on sections of the corridor such as west of the Fourth Plain Boulevard/117th Avenue intersection. Portland International Airport is accessed from this corridor via I-205, and the Amtrak station is accessible from this corridor via its I-5 connection.

Future Function

Based on the projected population, land use, and economic trends, the future function of this corridor is anticipated to remain unchanged. Significant residential, commercial and light industrial growth is anticipated in areas that will feed traffic into this corridor that will increase the demand.

Highlights and Performance

This section of SR 500 is primarily four-lane highway divided highway. Merging zones expand the facility at major interchanges like I-205. The corridor is undivided for short segments east of I-205 where there are also traffic signals. The annual average daily traffic on this corridor is highest at the I-205 interchange, and lowest at the I-5 junction.

What's working well?

- This corridor has a low climate change vulnerability rating.
- WSDOT has resolved previous chronic environmental deficiencies on the corridor and there are no current CED sites.
- Fixed-route transit and paratransit services are available in the corridor.
- The corridor has five electric vehicle charging stations.

What needs to change?

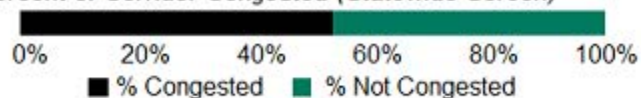
- 54% of the corridor experiences significant congestion on a regular basis.
- Approximately 12% of the pavements on the corridor are in poor to very poor condition.
- The corridor has fish passage barriers, sound wall issues, and environmental deficiencies.
- Pooling and water sheeting occurs at specific points along the corridor during inclement weather.

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

High	Low	
69,832	13,549	Annual Average Daily Traffic (AADT)
5.1%	4.6%	Bus/Truck Percent
42.44		Number of Lane Miles
14		# of Signalized/Stop Controlled Intersections
\$74,993,000		Corridor Investments (2005-2016)

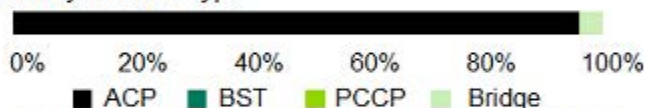
Mobility

Percent of Corridor Congested (Statewide Screen)

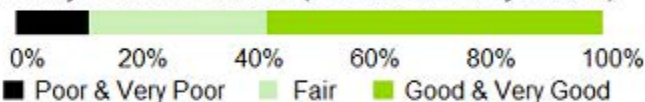


Preservation

Roadway Surface Type



Roadway Surface Condition (Percent of Surveyed Area)



Corridor Bridge Preservation Needs



Environment

	Protect	Restore/ Enhance/ Assess
Fish Barriers	100% Passable	0% to Do
Noise Walls	100% Built	0% Proposed
Chronic Environmental Deficiencies	0% Resolved	0% Unresolved
Wildlife Connectivity	0 Structures in Place	2 High Priority Miles
Stormwater Treatment	57 BMPs	Retrofit Prioritization in progress
Zero	% of Corridor with high potential for increased Climate Impacts	
7	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:

- A desire to address the difficulty of performing maintenance on medians due to invasive species growing both in the median and along the shoulders.
- Partners expressed concern about the proliferation and layout of intersections along the NE 117th Avenue portion of the corridor.
- Concern about the perceived negative impact on mobility along the corridor's intersections and interchanges and the accompanying speed limit changes.
- Several partners are interested in additional bicycle access along portions of the corridor.
- Partners expressed interest in finding ways to increase local access and land use between the north and south sides of SR 500.

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>
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Enhance or Restore	<i>Enhance or restore natural areas and environmental functions associated with the multimodal transportation system.</i>
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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>
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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 snow and ice control, pavement repair, and rest areas.</i>
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Pavement	<i>WSDOT has identified two Pavement actions in the next six years encompassing 60% of the corridor.</i>
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Structures	<i>WSDOT has identified one Structures action in the next six years at a single location on this corridor.</i>
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Safety

Investment	<i>WSDOT has identified four Safety Investment actions in the next six years encompassing 35% 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 SR 500 travels between I-5 and the NE 162nd Avenue intersection heading east-west through the city of Vancouver. It crosses I-205 and NE Fourth Plain Boulevard. The roadway is an urban, limited access facility. There are freeway-type interchanges west of NE Fourth Plain Boulevard, along with two signalized intersections. There are signalized and unsignalized intersections along with direct accesses between Fourth Plain Boulevard and Padden Parkway. Access to the Padden Parkway and NE 162nd Avenue portions of this route is almost all at signalized and unsignalized intersections.

This segment of SR 500 experiences regular congestion especially approaching I-5, at the signalized intersections with NE 42nd Avenue and NE 54th Avenue, and along the NE 117th Avenue portion of the corridor.

Mobility Strategies:

WSDOT compiled these strategies based on available information and existing plans. The agency will conduct engagement with its M3 teams to further develop strategies for the corridor.

Demand Management

- Encourage ridesharing, vanpooling, transit service, and park and rides to reduce single occupant vehicle trips.
- Implement Commute Trip Reduction strategies to reduce the number of vehicles on the segment during peak times.

Further Study

- Develop options to support local trips on the local network.
- Develop options and evaluate feasibility to improve access to and from I-5 to the north.
- Evaluate the signalized intersections at NE 42nd Avenue and NE 54th Avenue.
- Study the intersection of Fourth Plain Boulevard/ NE 117th Avenue.

Corridor Segment Characteristics

- This segment of SR 500 is within the city limits of Vancouver and Clark County.
- Four general purpose lanes, some turn lanes.
- Average annual daily traffic in 2015 was 50,000 west of St. Johns; 59,000 east of Andresen; 17,000 on Padden; and 20,000 on the east end.
- Segment speed limits range from 40 to 55 mph.
- Portions of this segment are limited access and managed access.
- Transit service is available along the NE 117th Avenue portion of the route. Bus Rapid Transit operates along Fourth Plain Boulevard, west of Vancouver Mall, parallel with SR 501.

Contributing Factors

- Congestion on the I-5 bridge across the Columbia River causes traffic to back up on westbound.
- SR 500 approaching I-5, especially during the morning peak.
- Heavy traffic and numerous access points to commercial businesses cause traffic to back up on westbound SR 500 approaching the I-205 bridge especially during the morning peak.
- The at-grade intersections at NE 42nd Avenue and NE 54th Avenue are in an otherwise freeway-type highway.
- Heavy demand causes congestion at the NE Fourth Plain Boulevard/NE 117th Avenue intersection.
- A lack of direct connections to and from I-5 to the north forces traffic onto the local network and makes access challenging.



The SR 500 interchange with I-5

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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