

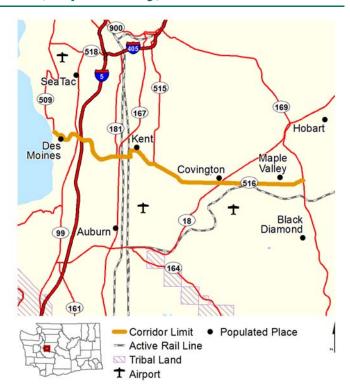
Corridor Sketch Summary

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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 516: SR 509 Jct (Des Moines) to SR 169 Jct (Maple Valley)

This 17-mile long east-west corridor is located in King County between the junction with State Route 509 in the city of Des Moines and the junction with SR 169 in the city of Maple Valley. The corridor passes through the cities of Des Moines, Kent, Covington, and Maple Valley. The cities of SeaTac, Tukwila, and Renton are north of the corridor, while Federal Way and Auburn lie to the south. The area along the corridor is mainly suburban in character with relatively dense development spread throughout. Most of the land use along the length of the corridor is single family residential, with the exception of significant commercial areas in the central business districts in each city. There are also several schools and local parks located directly on or near the corridor. There are two at grade railroad crossings within the downtown area of Kent. The Des Moines Marina is also located west of the corridor at the corridor's western terminus. Undeveloped areas are typically wooded with riparian growth or evergreens. Terrain along the corridor is mostly flat and crosses the Green River flood plain.



Current Function

SR 516 is an east-west connecting corridor between major north-south highways in southern King County. This corridor comprises all of SR 516 which functions as a commuter corridor for the cities it passes through and the surrounding area. Traffic generators for the corridor include the Kent industrial area, employment centers accessible via north-south highways such as Seattle, and commercial centers along the corridor. The corridor intersects SR 509, SR 99, and Interstate 5 in Des Moines; SR 181, SR 167, and SR 515 in Kent; and crosses SR 18 in Covington. Sounder commuter rail is accessible from the corridor as Kent Station is located one block north of the corridor in Kent. Both Union Pacific and BNSF railroads cross the corridor and provide access to the Kent industrial area. Pedestrians and bicyclists are present along the corridor, particularly where there are sidewalks such as between the Kent downtown core and the Covington downtown core. There are a couple of short sections of bicycle lanes, otherwise, shoulder use is also permitted where possible.

Future Function

Commuter use is expected to become more predominant as further residential development occurs in and around the more-rural eastern end of the corridor.

Highlights and Performance

SR 516 is primarily a four-lane, undivided highway with traffic signals at the intersections. The corridor expands to include turning and center turn lanes at intersections and along some sections of the corridor. The corridor narrows to a two-lane, undivided facility at its western end through Des Moines and its eastern end near SR 169. The annual average daily traffic on this corridor is highest in Kent at the SR 18 interchange and lowest in Des Moines west of SR 99.

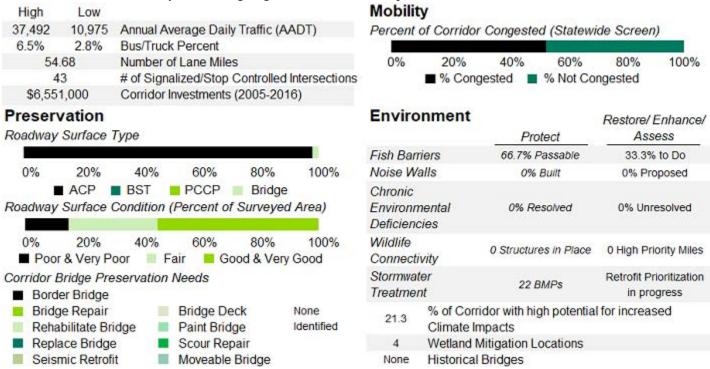
What's working well?

- There are no bridge preservation needs on the corridor.
- There is all day transit service on the corridor.
- Freight movement occurs across multiple modes on the corridor: highway and railroad.
- There are no chronic environmental deficiencies or habitat connectivity issues on the corridor.

What needs to change?

- Roughly 53% of the corridor experiences congestion on a regular basis.
- About 15% of pavements on the corridor are in poor to very poor condition.
- Fish passage barriers are present on the corridor.
- There is a moderate climate change vulnerability concern due to flooding between I-5 and SR 181.

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



^{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:

- There are public concerns with the current configuration of the SR 516/204th Avenue SE intersection that may warrant a traffic signal prior to the completion of the Covington Connector, extending 204th Avenue SE.
- Desire for future Transit Network with High Frequency All Day Service on Kent-Des Moines Road, SR 516, per the comprehensive plan.
- Desire for high Priority Pedestrian Corridor and recommended cyclist facilities, per the comprehensive plan.
- Desire to widen SR 516 between Jenkins Creek and the east city limits to five lanes per the comprehensive plan.
- Desire for adding turn lanes and modifying traffic signals on SR 516 from 160th Avenue SE to 164th Avenue SE.

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	WSDOT will continue to work with partners in developing strategies to address economic vitality.
Environment	
Protect and Maintain	Protect and maintain existing assets that provide environmental function (these include WSDOT's mitigation sites, storm water systems, fish passable culverts).
Enhance or Restore	Enhance or restore natural areas and environmental functions associated with the multimodal transportation system.
Fish Barrier Retrofit	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.
Mobility	
Assessment	Further information about the proposed strategies can be found attached at the end of this document.
Preservation	
Maintenance	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 sweeping and cleaning.
Pavement	WSDOT has identified two Pavement actions in the next six years encompassing 38% of the corridor.
Safety	
Investment	WSDOT has identified two Safety Investment actions in the next six years encompassing 35% of the corridor.
Stewardship	
Planning	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.



Mobility assessment for segment of Corridor 148 SR 516: SR 18 to SR 169 (Milepost 11.4-16.2)

This portion of SR 516 is a predominantly east-west principle arterial, serving the cities of Covington and Maple Valley as well as portions of unincorporated King County. The surrounding land uses are primarily suburban residential and commercial.

The segment is increasingly congested, particularly during peak commute hours. Congestion is concentrated in between SR 18 and SR 169.

Corridor Segment Characteristics

- The average daily traffic on this segment was greater than 39,000 vehicles in 2015.
- This segment is classified as a T-3 freight route with an annual tonnage over 2,000,000 in 2015.
- This route supports a large amount of commuter traffic in the morning and evening, provides connections to I-5, and numerous employment centers. SR 516 has a large volume of commercial and freight traffic.

Contributing Factors

- Recent population growth in this part of the region is resulting in increased congestion.
- Traffic demand exceeds capacity during commute hours, resulting in delay.
- The lack of parallel corridors causes traffic to funnel onto SR 516 and increases congestion.
- The limited east-west roadway capacity results in traffic funneling onto SR 516.
- Covington and Maple Valley are outside the Sound transit service district. King County Metro provides bus service on 30-minute headways connecting to the Kent Station, but travel to most destinations and major employment centers requires transferring to other bus routes or commuter rail.

Mobility Strategies:

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

Operational Improvements

- Improve intersections to manage congestion during periods of high use.
- Provide traveler information on roadway conditions to reduce delay.
- Work with local partners to implement operational improvements identified in the SR 516 Corridor Study completed in 2013.

Demand Management

- Increase transit service paired with improvements to provide travel time savings to encourage transit use.
- Promote vanpool services and engage employers to supplement the Commute Trip Reduction program to improve modal options and reduce single occupant vehicle trips.

Further Study

- Additional strategies to improve mobility may be identified through the Puget Sound Regional Council's regional planning process.
- Work with local governments to identify policies that create more transportation-efficient development patterns.



Congestion on the SR 516 corridor is occurring between the SR 18 and SR 169 interchanges.

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.

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