

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 224: I-82 Jct (Benton City) to SR 240 Jct (Richland)

This 10-mile long east-west corridor is located in Benton County. The corridor runs along State Route 224 between Interstate 82 in Benton City and the SR 240 junction in Richland passing through West Richland along the way. Through part of West Richland and all of Richland, the corridor is also known as W Van Giesen Street. The corridor crosses the Yakima River between West Richland and Richland. The western third of the corridor is rural with a mix of agricultural areas, open sageland and shrubsteppe, and grassland. The corridor transitions to suburban land uses for the remainder of its length. The West Richland area is developing rapidly with primarily residential development along with some commercial uses, a fast growing, high-value wine industry between Benton City and West Richland, and the Tri-Cities Raceway. There are also several parks and a school. The terrain directly along the corridor is relatively flat. However, Red Mountain, Horse Heaven Hills, and Badger Mountain Centennial Preserve are all visible from the corridor.



Current Function

SR 224 serves the cities of Benton City, West Richland, and Richland and links them to I-82. This corridor is comprised of all of SR 224 which is the sole direct state highway serving West Richland and is the gateway to the Red Mountain American Viticultural Area, a high-value wine grape region. The highway begins as a rural collector before changing to an urban collector and then an urban arterial. The corridor primarily serves commuters while accommodating some freight and tourist travel. The corridor also provides access to the Richland Airport. On the west end of the corridor, SR 224 crosses over a single track belonging to the Port of Benton and managed by Tri-City Railroad. Ben Franklin Transit provides public transportation along the length of the corridor and within the Tri-Cities region offering both bus service and vanpools. Three park and ride lots are located along the corridor. Cyclist and pedestrian traffic are present on the corridor, particularly in the two city centers where sidewalks are present.

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

SR 224 is mainly a two-lane, undivided highway. The corridor widens to four lanes with a center turn lane through the city of West Richland. There are two signalized intersections on the corridor at the Bombing Range Road and SR 240 intersections. The annual average daily traffic on this corridor is highest at the SR 240 junction and lowest at the I-82 interchange.

What's working well?

• The entire corridor performs above WSDOT's congestion threshold.

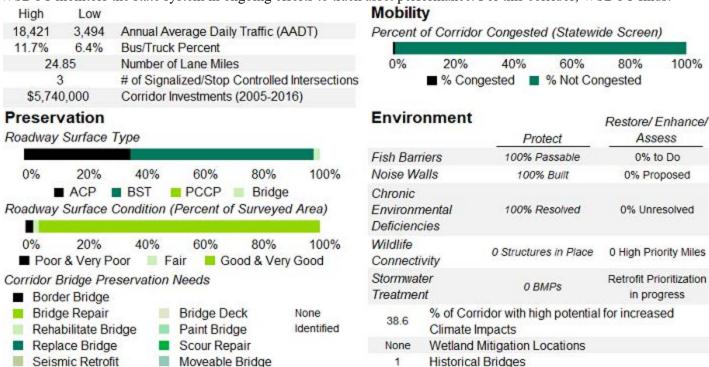
Approximately 97% of surveyed pavements on the corridor are in fair or better condition.

- There are no habitat connectivity sites or fish passage barriers on the corridor.
- There are no noise wall deficiencies noted on the corridor.
- Vanpools and park and ride lots are available and wellutilized.

What needs to change?

- A lack of facilities impedes mobility for bicyclists and pedestrians between Benton City and West Richland.
- Some portions of the corridor have a moderate climate change vulnerability rating.
- Backups currently occur at the SR 224/SR 225 intersection.

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:

- Concerns that several of the interchanges and intersections along the route are inefficient.
- A desire to increase accessibility to the Red Mountain area, Queensgate, and West Richland.
- Partners would like to see improvements made to bicyclist facilities along the corridor, especially along the rural section.
- Concerns over the inadequacy of current B-Reactor Manhattan Project National Historic Site visitor access routes.
- The possibility of expanding Port of Benton railroad accessibility to include SR 224 in addition to SR 240.
- Local concern over congestion occurring at multiple locations outside of the SR 240 junction where WSDOT's screen identified congestion.

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 vegetation control.
Pavement	WSDOT has identified one Pavement action in the next six years encompassing 9% 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 428 SR 224: Terminal Drive (Richland) to SR 240 Jct (Milepost 9.8-9.9)

This segment of SR 224 is the western leg of the signalized intersection with SR 240 near the Richland Airport. The segment connects two commuter routes and is the gateway to the Red Mountain American Viticultural Area from Richland.

The segment is congested at peak times with very long queues. Terminal Drive, a local street, intersects SR 224 very close to the SR 240 junction. The Tri-City Railroad, a shortline railroad, crosses within the limits of the SR 240/SR 224 intersection.

Corridor Segment Characteristics

- The average daily traffic on this segment was 17,000 vehicles at SR 240 in 2015.
- SR 224 carried between 1 million and 3 million tons of freight per year and with trucks ranging from 7% to 11% of the traffic in 2015. The highest tonnage was in the congested segment near SR 240.
- The speed limit on the corridor is 55 mph in the rural and less dense urban areas, and between 30 to 40 mph in the more developed urban area around the congested segment.
- Most of SR 224 is a Class 3 access managed highway (average restriction) with sections in West Richland having lesser controlled Class 4 or 5.
 SR 224 is limited access at the I-82 interchange area and at the SR 225 junction.
- In Richland, the shoulder is available for bicycle and pedestrian use. The curb section in West Richland, has sidewalks and cyclists ride in the travel lane. The remaining section of SR 224 has narrow shoulders, which are of limited use for cyclists and pedestrians.
- Ben Franklin Transit service is available on the segment.

Contributing Factors

- The West Richland area continues to see rapid residential growth, as well as agricultural and tourism growth associated with the Red Mountain American Viticultural Area increasing congestion on the segment.
- The congested segment is one leg of the SR 240/SR 224 intersection, which is congested on all legs and connects to SR 240 Bypass Highway corridor which is entirely congested.

Mobility Strategies: Operational Strategies

- Allow only right-in or right-out movements at the Terminal Drive intersection to reduce conflicts within the intersection.
- Coordinate railroad track signals with SR 240/SR 224 traffic signal to reduce congestion and improve operations.

Demand Management

- Implement additional transit service or vanpools during peak travel times to reduce single occupancy vehicle trips on SR 224.
- Offer the Commute Trip Reduction program to employers on the congested corridor to reduce demand during peak times and improve mobility on the highway.

Local Network Improvements

 Consider extending Jones Road to connect with SR 240 at the Kingsgate Way intersection to reduce congestion at the SR 224/SR 240 junction by diverting trips from the intersection.

Further Study

- Look into methods that allow smoother operations on both highways and reduce queueing for eastbound right-turns on SR 224.
- Study ways to reduce queueing of through traffic behind vehicles making left turns.
- Find ways to get more traffic through each traffic cycle thus reducing queues on SR 224.
- Conduct a corridor planning study using a Practical Solutions framework for the whole transportation network and develop strategies to address, focusing on the SR 240/SR 224 intersection.

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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