

# I-5 – Joint Base Lewis-McChord Transportation Analysis



## Transportation Issues

### Regional Travel Demands and Growth

- I-5 interchanges are structurally obsolete and have insufficient capacity to accommodate traffic
- High incidences of rear-end and side swipe collisions
- Freeway capacity is reduced from 4 to 3 lanes southbound at Thorne Lane
- The I-5 corridor through Lakewood carries approximately 145,000 vehicles per day
- Freight comprises 10–15% of that total volume

### Local Connectivity

- There are no parallel arterials connecting neighboring cities, forcing travelers to use I-5 as a local arterial
- There is little to no HOV or transit service, especially to and from JBLM

### Military Base Accessibility

- Military readiness is compromised due to congestion in the corridor
- JBLM will see significant growth in services for Veterans and other military personnel in the region

This analysis identified impacts to and potential improvements for an 11 mile segment of the I-5 corridor due to growth at Joint Base Lewis-McChord (JBLM), which will now be one of the largest military bases on the west coast. Since 2003 there have been an additional 8,200 active duty personnel and nearly 2,000 new civilian positions at JBLM; exceeding the population and employment projections developed by local jurisdictions.

This growth will impact the I-5 corridor, which is the economic lifeline for Washington State and also plays a role in national security by providing access to JBLM and Camp Murray. However, this access is compromised because I-5 is congested during many hours of the day and forecasts show that this congestion will worsen. Recognizing that the base is contributing to this congestion, the federal government allocated funding to help local communities assess the impacts of JBLM growth to the I-5 corridor.

The city of Lakewood worked with the Washington State Department of Transportation, JBLM, Camp Murray and other agencies through a Technical Review Committee to evaluate and develop improvement recommendations for I-5 from Mounts Road (Exit 116) to State Route 512 (Exit 127) in Pierce County.

## Improvements Evaluated

Improvement options were evaluated for the mainline and for Exits 119, 120, 122 and 123. If all the improvements were implemented they would cost between \$960 million and \$1.1 billion. These cost estimates are in 2010 dollars; see page 2 for further information about the concept improvements.

## Implementing Recommendations: Next Steps

Update Regional and State Transportation Plans to include the study's recommendations to position the improvements for funding.

As funding becomes available:

1. Implement ITS and Transit Improvements
2. Complete an Interchange Justification Report
3. Conduct an Environmental Analysis of Impacts
4. Prepare Final Design, Acquire Right-of-Way, Obtain Necessary Permits
5. Construct Improvements

## For More Information

Richard Warren



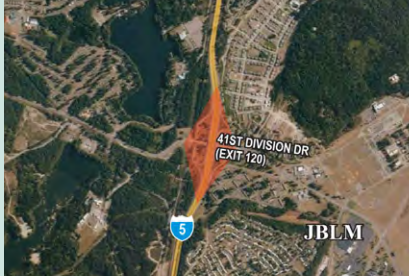

E-mail: [urbanplanning@wsdot.wa.gov](mailto:urbanplanning@wsdot.wa.gov)

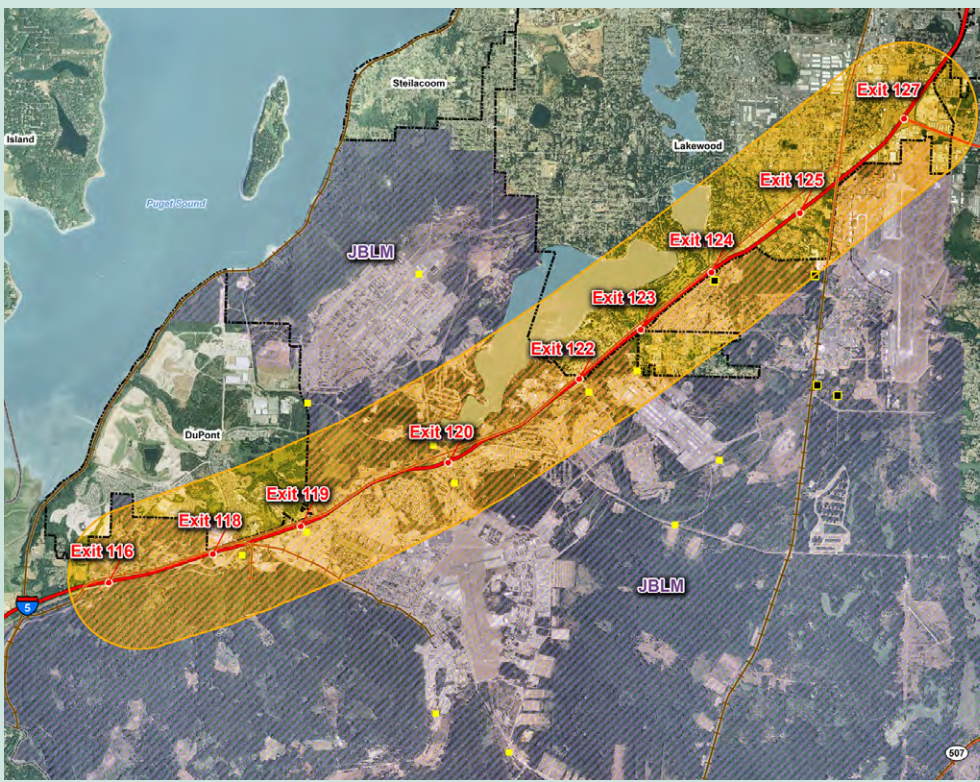
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[www.wsdot.wa.gov/Projects/I5/FtLewisMcChordTransportation](http://www.wsdot.wa.gov/Projects/I5/FtLewisMcChordTransportation)

*This study is part of a larger planning effort funded by a grant from the Department of Defense's Office of Economic Adjustment, which examines a wide range of community issues resulting from military growth.*



<p><b>Exit 123</b> <b>Thorne Lane</b></p>		<p><b>Proposed Improvement:</b> Single point urban interchange</p> <p><b>Issue:</b> The close proximity of arterial intersections and rail line to the I-5 ramp terminals, combined with traffic entering and exiting JBLM from the north, leads to congestion problems in both the AM and PM peak periods.</p> <p><b>Estimated Cost:</b> \$300 Million</p>
<p><b>Exit 122</b> <b>Berkeley Street</b></p>		<p><b>Proposed Improvement:</b> Single point or diverging diamond interchange</p> <p><b>Issues:</b> The close proximity of arterial intersections and rail line to the I-5 ramp terminals, combined with traffic entering and exiting JBLM from the north, leads to congestion problems in both the AM and PM peak periods. In the morning, southbound traffic exiting to JBLM exceeds the capacity of the signalized intersections at the ramp terminal and routinely backs-up onto the I-5 mainline.</p> <p><b>Estimated Cost:</b> \$22–\$72 Million</p>
<p><b>Exit 120</b> <b>41st Division Drive</b></p>		<p><b>Proposed Improvement:</b> Grade separated ramp connecting the southbound I-5 off-ramp to the JBLM north access gate.</p> <p><b>Issue:</b> 41st Street has the largest traffic volumes of all the gates at JBLM. The volume of traffic headed northbound in the evening faces merge issues with the mainline volume already on I-5. In the morning peak, traffic entering JBLM can queue back on to the existing rail line crossing near the ramp terminals, creating safety and mobility issues.</p> <p><b>Estimated Cost:</b> \$16 Million</p>
<p><b>Exit 119</b> <b>Dupont-Steilacoom Road</b></p>		<p><b>Proposed Improvement:</b> Single point or diverging diamond interchange</p> <p><b>Issues:</b> The close proximity of arterial intersections and rail line to the I-5 ramp terminals, combined with traffic entering and exiting JBLM from the south, leads to congestion problems in both the AM and PM peak periods. In the evening, southbound exiting traffic exceeds the capacity of the signalized intersections at the ramp terminals.</p> <p><b>Estimated Cost:</b> \$22–\$72 Million</p>

<p><b>I-5 Mainline</b></p>		<p><b>Proposed Improvements:</b></p> <ul style="list-style-type: none"> <li>• Ramp metering at each interchange within the study area</li> <li>• Electronic driver information system along the freeway</li> <li>• Auxiliary lanes between Thorne Lane (Exit 123) and Gravelly Lake Drive (Exit 124)</li> <li>• General purpose lane from Mounts Road (Exit 116) to Thorne Lane</li> <li>• Braided ramps between Berkeley Street (Exit 122) and Thorne Lane interchanges</li> <li>• Enhancements to transit service and transit facilities</li> </ul> <p><b>Estimated Cost:</b> \$600 Million</p>
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