Puget Sound Gateway Program
SR 509

Steering Committee
June 9, 2016

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OMAR JEPPERSON, PE  SR 509 PROJECT MANAGER
Agenda

• Welcome & Introductions
• Program Overview
• Scenario Review
• Review Essential Performance Metrics and Ratings
• Review Contextual Performance Metrics and Ratings
• Review Cost Estimates
• Refine Scenarios
• Conclusion and Next Steps
Puget Sound Gateway Program Update

• Gateway Program Management Office
• SR 167 Activities
• Coordination with WSDOT Secretary
SR 509 Steering Committee 2016 Work Plan

- Determine Needs
- Define Performance Metrics
- Develop Scenarios
- Stakeholder Endorsement of Scope
- Funding & Phasing
- Recommend Implementation Plan

We are here
Legislative Direction

In making budget allocations to the Puget Sound Gateway project, the department shall implement the project's construction as a single corridor investment. The department shall develop a coordinated corridor construction and implementation plan for SR 167 and SR 509 in collaboration with affected stakeholders.

Specific funding allocations must be based on where and when specific project segments are ready for construction to move forward and investments can be best optimized for timely project completion. Emphasis must be placed on avoiding gaps in fund expenditures for either project.
Puget Sound Gateway Program

Puget Sound Gateway projects (SR 167 and SR 509) are funded on the same 16-year timeline

- Total funding is $1.87 billion; this amount assumes $310 million local match and tolling revenue
Puget Sound Gateway Program

Total funding is $1.87 billion; this amount assumes $310 million local match and tolling revenue.

- Total funding: $1.87 billion
- Local contribution: $130 million
- Toll revenue: $180 million
- Connecting Washington funding: up to $1.57 billion
Key Questions for Consideration

• Number of lanes on SR 509
• Tolls
• Managed lanes
• Forward compatibility
• Effects to I-5
• Connectivity
• South access
Scenarios

- Range from “closing the gap” to “full-build”
Scenario 1: Closing the Gap

- Focuses on creating a connection from 188th to I-5
- 2 lanes with truck climbing lane 188th to 28th/24th. Becomes 4 lanes south of 28th/24th
- No interchange at 200th
Scenario 2: Limited Connectivity

- Presents a configuration similar to the 2013 Gateway concept
- 2 lanes with truck climbing lane 188th to 28th/24th. Becomes 4 lanes south of 28th/24th
- No interchange at 200th
Scenario 3: Moderate Connectivity

- Creates enhanced connectivity compared to scenarios 1 and 2
- 4 lanes throughout alignment
- No interchange at 200th
Scenario 4: Full Connectivity

- Creates a full connectivity scenario
- 4 lanes throughout alignment
- ½ diamond interchange at 200th
Scenario 5: Full Build

- Similar to the EIS concept
- 6 lanes throughout alignment
- ½ diamond interchange at 200th
Performance Evaluation Results

<table>
<thead>
<tr>
<th>Scenario Comparison Table - SR 509 Completion Project</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Performance Category</strong></td>
</tr>
<tr>
<td><strong>Mode</strong></td>
</tr>
<tr>
<td><strong>Performance Metric</strong></td>
</tr>
<tr>
<td><strong>Scenario</strong></td>
</tr>
<tr>
<td>No Build</td>
</tr>
<tr>
<td>Scenario 1 - Closing the Gap</td>
</tr>
<tr>
<td>Scenario 2 - Limited Connectivity</td>
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<td>Scenario 3 - Moderate Connectivity</td>
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<td>Scenario 4 - Full Connectivity</td>
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<td>Scenario 5 - Full-Build</td>
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<table>
<thead>
<tr>
<th>Essential Performance Metrics</th>
<th>Economic Vitality</th>
<th>Safety</th>
<th>Contextual Performance Metrics</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility</td>
<td></td>
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<tr>
<td>Economic Vitality</td>
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<tr>
<td>Safety</td>
<td></td>
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</tr>
</tbody>
</table>

**Scenario Details**
- **No Build**
  - No significant changes to current road infrastructure.

**Key Performance Metrics**
- Traffic Volume
- Travel Time
- Safety
- Economic Impact

**Contextual Performance Metrics**
- Environmental
- Other

**Cost**
- Projected cost breakdown for each scenario.

*Source: WSDOT*
Performance Metrics Evaluation Results

• Scenarios were evaluated using our previously reviewed performance metrics
• Performance metrics are based on our essential and contextual needs
• Each scenario is rated in each category via the following:
  - Very Good
  - Good
  - Moderate
  - Fair
  - Poor

Evaluation results are relative between the scenarios.
Essential Performance Targets

• Improve throughput and lower levels of congestion on new SR 509 facility
• Maintain or improve I-5 operations between S. Spokane St and SR 18
• Reduce hours of delay in the project subarea network
• Reduce travel time between Sea-Tac Airport and the area south of S. 200th St.
• Improve travel time reliability between Sea-Tac Airport and the area south of S. 200th
• Reduce travel time between Urban Centers and Manufacturing Industrial Centers in South King County
• Improve travel time reliability between Urban Centers and Manufacturing Industrial Centers in South King County
• Improve economic vitality
• Support local and regional comprehensive land use planning and development
• Reduce number of serious injury and fatal crashes (I-5 and SR 509)
Performance Metrics Results

General Observations

• Adding the missing SR 509 connection shifts trips towards the SR 509 corridor.

• The single lane section on scenarios 1 and 2 limit the volume shifted to SR 509.

• Tolling allows for better operations and improved performance.
Travel Pattern Changes
# Mobility- SR 509 Performance

Throughput potential and congestion were evaluated for 2025 southbound PM conditions.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Mobility</th>
<th>Capacity Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>Fair</td>
<td>Single Lane Section</td>
</tr>
<tr>
<td>S2</td>
<td>Fair</td>
<td>Single Lane Section</td>
</tr>
<tr>
<td>S3</td>
<td>Good</td>
<td>Grade approaching I-5</td>
</tr>
<tr>
<td>S4</td>
<td>Good</td>
<td>Grade approaching I-5</td>
</tr>
<tr>
<td>S5</td>
<td>Moderate</td>
<td>Grade approaching I-5</td>
</tr>
<tr>
<td>S5 Free</td>
<td>Very Good</td>
<td>Grade approaching I-5</td>
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<table>
<thead>
<tr>
<th>Scenario</th>
<th>Auto/Freight</th>
<th>Capacity Limitation</th>
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<tbody>
<tr>
<td>S1</td>
<td>Fair</td>
<td>Single Lane Section</td>
</tr>
<tr>
<td>S2</td>
<td>Fair</td>
<td>Single Lane Section</td>
</tr>
<tr>
<td>S3</td>
<td>Good</td>
<td>Grade approaching I-5</td>
</tr>
<tr>
<td>S4</td>
<td>Good</td>
<td>Grade approaching I-5</td>
</tr>
<tr>
<td>S5</td>
<td>Moderate</td>
<td>Grade approaching I-5</td>
</tr>
<tr>
<td>S5 Free</td>
<td>Very Good</td>
<td>Grade approaching I-5</td>
</tr>
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<table>
<thead>
<tr>
<th>Scenario</th>
<th>HOV/Bus</th>
<th>Capacity Limitation</th>
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<tbody>
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<td>Single Lane Section</td>
</tr>
<tr>
<td>S2</td>
<td>Fair</td>
<td>Single Lane Section</td>
</tr>
<tr>
<td>S3</td>
<td>Good</td>
<td>Grade approaching I-5</td>
</tr>
<tr>
<td>S4</td>
<td>Good</td>
<td>Grade approaching I-5</td>
</tr>
<tr>
<td>S5</td>
<td>Moderate</td>
<td>Grade approaching I-5</td>
</tr>
<tr>
<td>S5 Free</td>
<td>Very Good</td>
<td>Grade approaching I-5</td>
</tr>
</tbody>
</table>

*General purpose lane only.

LOS for reference only. LOS based on Highway Capacity Manual calculations. Two Lane Highway used for S1, S2. Basic Freeway Section used for S3, S4, S5, S5 Free.
Mobility - I-5 Performance

I-5 Performance Northbound AM, 2025

I-5 model projected speeds were evaluated at several screenline locations.
Mobility- I-5 Performance
I-5 Performance Southbound PM, 2025

I-5 model projected speeds were evaluated at several screenline locations

**Scenario 1:** Moderate

**Scenario 2:** Moderate

**Scenario 3:** Moderate

**Scenario 4:** Good

**Scenario 5:** Good
Updated Project Subarea
Total vehicle hours of delay (VHD) were evaluated for the North and Central sub areas.

**Scenario 1**: Moderate

**Scenario 2**: Moderate

**Scenario 3**: Good

**Scenario 4**: Moderate

**Scenario 5**: Good
Mobility - Travel Time from the Airport

- Travel time savings from the airport to Federal Way, Auburn and Kent were evaluated for 2025 PM conditions.

<table>
<thead>
<tr>
<th>2025 PM Travel Time Savings (minutes)</th>
<th>2045 PM Travel Time Savings (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Federal Way</td>
</tr>
<tr>
<td>S1</td>
<td>6.5</td>
</tr>
<tr>
<td>S2</td>
<td>8.0</td>
</tr>
<tr>
<td>S3</td>
<td>8.0</td>
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<tr>
<td>S4</td>
<td>11.0</td>
</tr>
<tr>
<td>S5</td>
<td>11.5</td>
</tr>
<tr>
<td>S5 Free</td>
<td>11.5</td>
</tr>
</tbody>
</table>

- **Scenario 1**: Moderate
- **Scenario 2**: Good
- **Scenario 3**: Good
- **Scenario 4**: Very Good
- **Scenario 5**: Very Good
Mobility - Reliability from the Airport

Travel Time 50% longer than free flow and twice as long as free flow were evaluated.

Scenario 1: Moderate
Scenario 2: Moderate
Scenario 3: Moderate
Scenario 4: Moderate
Scenario 5: Moderate
Travel Time Between Centers

- Duwamish
- Burien
- North Tukwila
- Tukwila
- SeaTac
- Renton
- Kent Industrial
- Kent
- Federal Way
- Auburn
**Mobility- Travel Time Between Centers**

Each trip between the 10 centers were evaluated for each scenario, for AM & PM and for 2025 and 2045 to determine where changes occurred compared to no build. Two example charts of time savings in minutes are shown:

<table>
<thead>
<tr>
<th>2025 PM Scenario 1</th>
<th>Duwamish</th>
<th>North Tukwila</th>
<th>Burien</th>
<th>Seatac</th>
<th>Tukwila</th>
<th>Renton</th>
<th>Kent Industrial</th>
<th>Kent</th>
<th>Federal Way</th>
<th>Auburn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duwamish</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.5</td>
<td>0</td>
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<td>1</td>
<td>2</td>
<td>2.5</td>
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<tr>
<td>North Tukwila</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.5</td>
<td>0</td>
<td>0.5</td>
<td>0.5</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Burien</td>
<td>0</td>
<td>0</td>
<td>0.5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.5</td>
<td>1</td>
<td>2.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Seatac</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>+1</td>
<td>+0.5</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Tukwila</td>
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<td>0.5</td>
<td>0</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Kent Industrial</td>
<td>0.5</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.5</td>
<td>0</td>
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<td>0.5</td>
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<tr>
<td>Kent</td>
<td>0.5</td>
<td>0.5</td>
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<td>0</td>
<td>0</td>
<td>0.5</td>
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<td>0.5</td>
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</tr>
<tr>
<td>Federal Way</td>
<td>1</td>
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<td>2.5</td>
<td>0</td>
<td>0.5</td>
<td>1</td>
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<tr>
<td>Auburn</td>
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<table>
<thead>
<tr>
<th>2025 PM Scenario 5</th>
<th>Duwamish</th>
<th>North Tukwila</th>
<th>Burien</th>
<th>Seatac</th>
<th>Tukwila</th>
<th>Renton</th>
<th>Kent Industrial</th>
<th>Kent</th>
<th>Federal Way</th>
<th>Auburn</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duwamish</td>
<td>0</td>
<td>+0.5</td>
<td>0</td>
<td>0</td>
<td>0.5</td>
<td>0</td>
<td>1.5</td>
<td>6</td>
<td>5.5</td>
<td></td>
</tr>
<tr>
<td>North Tukwila</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.5</td>
<td>1</td>
<td>1.5</td>
<td>2.5</td>
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<tr>
<td>Burien</td>
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<td>0.5</td>
<td>0.5</td>
<td>1.5</td>
<td>4.5</td>
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</tr>
<tr>
<td>Seatac</td>
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<td>0</td>
<td>0</td>
<td>0</td>
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<td>Tukwila</td>
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<td>0.5</td>
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<td>0.5</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>Renton</td>
<td>0</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0.5</td>
<td>0</td>
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<td>1.5</td>
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<tr>
<td>Kent Industrial</td>
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<td>0</td>
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<td>1</td>
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<td>0</td>
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<tr>
<td>Auburn</td>
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<td>1</td>
<td>1.5</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
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</tbody>
</table>
Mobility - Travel Time Between Centers

Key AM travel changes

<table>
<thead>
<tr>
<th>Kent to Burien Travel Time Savings</th>
<th>2025 AM</th>
<th>2045 AM</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>+0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>S2</td>
<td>0.0</td>
<td>0.5</td>
</tr>
<tr>
<td>S3</td>
<td>0.5</td>
<td>1.5</td>
</tr>
<tr>
<td>S4</td>
<td>1.0</td>
<td>2.5</td>
</tr>
<tr>
<td>S5</td>
<td>1.0</td>
<td>1.5</td>
</tr>
<tr>
<td>S5 Free</td>
<td>2.0</td>
<td>2.5</td>
</tr>
</tbody>
</table>
Mobility - Travel Time Between Centers

### Duwamish to Federal Way Travel Time Savings (minutes)

<table>
<thead>
<tr>
<th>Scenario</th>
<th>2025 PM</th>
<th>2045 PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>2.0</td>
<td>1.0</td>
</tr>
<tr>
<td>S2</td>
<td>3.5</td>
<td>1.5</td>
</tr>
<tr>
<td>S3</td>
<td>4.0</td>
<td>1.0</td>
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<tr>
<td>S4</td>
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<tr>
<td>S5</td>
<td>6.0</td>
<td>1.5</td>
</tr>
<tr>
<td>S5 Free</td>
<td>4.5</td>
<td>2.0</td>
</tr>
</tbody>
</table>

### Key PM travel changes

- **Scenario 1**: Moderate
- **Scenario 2**: Moderate
- **Scenario 3**: Good
- **Scenario 4**: Good
- **Scenario 5**: Good

### Duwamish to Auburn Travel Time Savings (minutes)

<table>
<thead>
<tr>
<th>Scenario</th>
<th>2025 PM</th>
<th>2045 PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1</td>
<td>2.5</td>
<td>1.5</td>
</tr>
<tr>
<td>S2</td>
<td>3.5</td>
<td>1.5</td>
</tr>
<tr>
<td>S3</td>
<td>4.0</td>
<td>1.0</td>
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<tr>
<td>S4</td>
<td>3.0</td>
<td>1.0</td>
</tr>
<tr>
<td>S5</td>
<td>5.5</td>
<td>2.0</td>
</tr>
<tr>
<td>S5 Free</td>
<td>4.5</td>
<td>1.5</td>
</tr>
</tbody>
</table>
Mobility- Reliability Between Centers

- Travel time 50% longer than free flow and twice as long as free flow were evaluated
- Results of all trip pairs

Scenario 1: Moderate
Scenario 2: Moderate
Scenario 3: Moderate
Scenario 4: Moderate
Scenario 5: Moderate
Economic Vitality – Economic Benefit

Estimates of the 20-year benefits in the North and Central sub areas and relationship to project costs were evaluated. Comparative rating of scenarios using travel time savings benefits only.

<table>
<thead>
<tr>
<th>Scenario</th>
<th>B/C Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario 1: Moderate</td>
<td>0.7</td>
</tr>
<tr>
<td>Scenario 2: Very Good</td>
<td>2.1</td>
</tr>
<tr>
<td>Scenario 3: Very Good</td>
<td>2.2</td>
</tr>
<tr>
<td>Scenario 4: Good</td>
<td>1.4</td>
</tr>
<tr>
<td>Scenario 5: Good</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Net present value calculations assuming 4% discount rate, $16/hr for individuals, $76/hr for trucks.
Economic Vitality: Comprehensive Land Use Planning and Development

How did we measure how scenarios support local and regional comprehensive land use planning and development?

Evaluated each alternative based on connections between the Urban and Manufacturing Industrial Centers.

**Scenario 1**: Fair

**Scenario 2**: Moderate

**Scenario 3**: Moderate

**Scenario 4**: Very Good

**Scenario 5**: Very Good

Scenario 1 received a “fair” because it didn’t provide as many connections and opportunities to link the centers.

Scenarios 4 and 5 received ratings of very good because they provided the maximum level connections, intersections and linkages.
Safety – Number of Serious and Fatal Crashes

Assessment of the changes in crashes on the highway sections.

**Scenario 1:** Fair

**Scenario 2:** Fair

**Scenario 3:** Moderate

**Scenario 4:** Moderate

**Scenario 5:** Moderate

The single lane section of SR 509 and I-5 weaving sections in scenario 1 and 2 may have a higher crash experience than the other scenarios.
## Essential Performance Metrics

### Scenario Comparison Table - SR 509 Completion Project

<table>
<thead>
<tr>
<th>Performance Category</th>
<th>Essential Performance Metrics</th>
<th>Scenario</th>
<th>Mobility</th>
<th>Economic Vitality</th>
<th>Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SR 509 Performance Improvement in new SR 509 facility</td>
<td>No Build</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Travel Time Improvement</td>
<td>Scenario 1 - Closing the Gap</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Safety Improvement</td>
<td>Scenario 2 - Limited Connectivity</td>
<td></td>
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<td></td>
<td>Economic Vitality Improvement</td>
<td>Scenario 3 - Moderate Connectivity</td>
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<tr>
<td></td>
<td>Local and Regional Connectivity Improvement</td>
<td>Scenario 4 - Full Connectivity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Safety Improvement</td>
<td>Scenario 5 - Full-Build</td>
<td></td>
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</tbody>
</table>
Contextual Performance Metrics

• Reduce the number of serious injury and fatal crashes on local arterials
• Support multimodal choices to Sea-Tac Airport and Kent-Des Moines Link Light Rail Station
• Improve intermodal relationships between the seaport, airport and manufacturing/industrial centers
• Reduce pedestrian vehicle exposure
• Improve continuity and consistency of pedestrian and bicycle facilities
• Reduce area of impact to sensitive areas
• Maintains forward compatibility with future highway widening
• Reduce right of way impact
• Compatibility with Sound Transit Federal Way Link Extension
Safety – Serious and Fatal Crashes on Local Arterials

How did we measure “Number of serious injury and fatal crashes on local arterials”?

The relative shift of trips off the local street system was viewed favorably as the crash exposure per mile traveled is estimated to be lower on a highway section than on a local arterial.

**Scenario 1:** Moderate

**Scenario 2:** Moderate

**Scenario 3:** Good

**Scenario 4:** Good

**Scenario 5:** Good
Mobility – Choices to Airport and KDM Station

How did we measure how scenarios “Support multimodal choices to and from SeaTac Airport and Kent-Des Moines Link Light Rail Station”?

We looked at how each scenario improves connections to the airport and Kent-Des Moines Link Light Rail station.

**Scenario 1:** Moderate

**Scenario 2:** Good

**Scenario 3:** Good

**Scenario 4:** Very Good

**Scenario 5:** Very Good
Mobility – Intermodal Relationships

How did we measure how scenarios “Improve intermodal relationships between the seaport, airport, and manufacturing/industrial centers”?

We evaluated the scenarios based on the facilities provided that improve the connections between the seaport, the airport and the manufacturing/industrial centers.

**Scenario 1:** Fair  
**Scenario 2:** Moderate  
**Scenario 3:** Good  
**Scenario 4:** Good  
**Scenario 5:** Very Good
How did we measure how scenarios “Reduce pedestrian vehicle exposure”?

We evaluated improvements made to pedestrian crossings at interchanges along the corridor. Reconstruction to provide signalized crossings reduces pedestrian vehicle exposure.

**Scenario 1:** Fair

**Scenario 2:** Good

**Scenario 3:** Good

**Scenario 4:** Good

**Scenario 5:** Good
Mobility – Improve Pedestrian & Bicycle Facilities

How did we measure how scenarios “Improve continuity and consistency of pedestrian and bicycle facilities”?

We looked at the number of ramp crossings that pedestrians need to make to navigate across an interchange and if bike lanes are added through interchanges.

Scenario 1: Good 🔽
Scenario 2: Moderate 🔷
Scenario 3: Good 🔽
Scenario 4: Moderate 🔷
Scenario 5: Good 🔽
Environment – Reduce Impact to Sensitive Areas

How did we measure “Reduce area of impact to sensitive areas”?

Less shadow impacts at Wetlands A and B which are high class wetlands reduced impacts to sensitive areas

- Scenario 1: Very Good
- Scenario 2: Very Good
- Scenario 3: Good
- Scenario 4: Good
- Scenario 5: Moderate

Scenarios 1 and 2 have one lane in each direction with climbing lanes resulting in a narrow footprint and better score. The Full build has the widest footprint and had the lowest score.
Other – Forward Compatibility

How did we measure “Forward Compatibility”?

For Forward Compatibility, we looked at right of way, structure width, and compatibility with future highway widening.

**Scenario 1:** Fair

**Scenario 2:** Moderate

**Scenario 3:** Good

**Scenario 4:** Good

**Scenario 5:** Very Good
Other – Right of Way Impacts

How did we measure how scenarios “Reduce right of way impacts”?

Reducing right or way impacts reduces impacts on the community and reserves more property for economic development and housing in an important urban area. Generally narrower footprint scored better.

**Scenario 1:** Very Good

**Scenario 2:** Fair

**Scenario 3:** Good

**Scenario 4:** Fair

**Scenario 5:** Fair
Other – Compatibility with Sound Transit FWLE

How did we measure “Compatibility with Sound Transit FWLE”?

We reviewed how the scenarios interact with the proposed Sound Transit Federal Way Link Extension. Scenarios that reduce required span lengths and provided additional space for flexibility at key locations scored higher.

Scenario 1: Good
Scenario 2: Fair
Scenario 3: Moderate
Scenario 4: Moderate
Scenario 5: Fair
## Contextual Performance Metrics

![Contextual Performance Metrics Diagram](image)

<table>
<thead>
<tr>
<th>Safety</th>
<th>Mobility</th>
<th>Env't</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety and efficient public and rail service</td>
<td>Improve freight relationships between the Airport and major expressways</td>
<td>Ped</td>
<td>Ped &amp; Bike</td>
</tr>
<tr>
<td>Support multimodal connections to SeaTac Airport and links to light rail stations</td>
<td>Improve freight relationships between the Airport and major expressways</td>
<td>Ped</td>
<td>Ped &amp; Bike</td>
</tr>
<tr>
<td>Continuity and consistency of pedestrian and bicycle facilities</td>
<td>Number and location of pedestrian and bicycle facilities</td>
<td>Ped</td>
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</tr>
</tbody>
</table>

### Performance Levels
- 0: None
- 1: Minimal
- 2: Moderate
- 3: Significant
- 4: Excellent
Preliminary Cost Review

- Costs are developed based on major items (bridges, earthwork, pavement) that can be estimated directly.
- Programmatic and project development costs are consistent across all scenarios.
- Assumptions included using a base year of 2016
  - PE estimates inflated to year 2019
  - Right of Way estimates inflated to year 2021
  - Construction estimates inflated to year 2025
- 4% risk applied to address events and project unknowns.
Scenario 1: Closing the Gap

<table>
<thead>
<tr>
<th>Route</th>
<th>Funding</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR 167</td>
<td>$940m</td>
<td>50%/50%</td>
</tr>
<tr>
<td>SR 509</td>
<td>$750m</td>
<td>40%/60%</td>
</tr>
</tbody>
</table>

Total Gateway Funding: $1.87b

- SR 167: $940m (50%/50%)
- SR 509: $750m (40%/60%)
- Total: $710M

1: $710M
Scenario 1: Closing the Gap

- 188th
  - $11M
- 509
- 200th
  - No interchange
- 28th/24th
  - $13M
  - 1-5
    - $150M
    - SR 516
      - $127M
      - Veterans North
      - No added lanes
- Federal Way Urban Center
- Auburn Urban Center

- Burien Urban Center
- Sea-Duwaamish Manufacturing Industrial Center
- SeaTac Urban Center
- Airport Southern Access
- 28th Ave
- 3 Lane
- 4 Lane
- Toll Point
- NB & SB Aux
- Does not preclude Wishbone (5 of 516)
Scenario 2: Limited Connectivity

<table>
<thead>
<tr>
<th>Gateway</th>
<th>Funding</th>
<th>Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR 167</td>
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<td>50%/50%</td>
</tr>
<tr>
<td>SR 509</td>
<td>$750m</td>
<td>40%/60%</td>
</tr>
</tbody>
</table>

Total Gateway Funding $1.87b

- 1: $710M
- 2: $860M
Scenario 2: Limited Connectivity

$863M
Scenario 3: Moderate Connectivity

<table>
<thead>
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<tr>
<td>SR 167</td>
<td>$940m</td>
</tr>
<tr>
<td>SR 509</td>
<td>$750m</td>
</tr>
</tbody>
</table>

- 50%/50%: $710M
- 40%/60%: $860M
- $880M

Total Gateway Funding: $1.87b
Scenario 3: Moderate Connectivity

- Sea-Duwanish Manufacturing Industrial Center
- Burien Urban Center
- Kent Manufacturing Industrial Center
- Auburn Urban Center
- Federal Way Urban Center

- 188th
  - $11M
- 200th
  - No Interchange
- 28th/24th
  - $13M
- I-5
  - $236M
- SR 516
  - Veterans North & South Frontage Rd (SR 516)
  - Does not preclude Wishbone (S of 516)
  - Loop Ramp
- Airport Southern Access
  - $318M
  - 4 Lane
- 509
  - $36M
  - Aux SB 516-272nd
- 509
  - $105M
  - $14M
  - 4 Lane
  - Toll Point 1

Total Cost: $879M
Scenario 4: Full Connectivity

Total Gateway Funding: $1.87b

- SR 167: $940m (50%/50%)
- SR 509: $750m (40%/60%)

Funding Levels:
- $680M
- $850M
- $880M
- $1.05B
Scenario 4: Full Connectivity

$1,045M
Scenario 5: Full Build

**Total Gateway Funding**

- **SR 167**
  - $940M (50%/50%)
- **SR 509**
  - $750M (40%/60%)

**Funding Breakdown**

- **$680M**
- **$850M**
- **$880M**
- **$1.05B**
- **$1.88B**

**Total Gateway Funding**

$1.87B
Scenario 5: Full Build

$1,877M
Key areas where scenarios differed in performance:
• Scenario 1 and 2 does not perform as well as 3, 4, 5
• Traffic performance of 3, 4, and 5 are similar
• Cost of scenario 5 is twice scenario 3 and about the same as the entire Gateway Budget
Key Questions for Refinement

- Number of lanes on SR 509
- Tolls
- Managed lanes
- Forward compatibility
- Effects to I-5
- Connectivity
- South access
## Project Schedule (SR 509)

<table>
<thead>
<tr>
<th>Month</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec</td>
<td>Kick-off (1)</td>
</tr>
<tr>
<td>Jan</td>
<td>Methodology review (2)</td>
</tr>
<tr>
<td>Feb</td>
<td>Preliminary scenarios and evaluation results (3)</td>
</tr>
<tr>
<td>Mar</td>
<td>Present refined scenarios (4)</td>
</tr>
<tr>
<td>Apr</td>
<td>Recommend scope (5)</td>
</tr>
<tr>
<td>May</td>
<td>Construction staging &amp; funding (6)</td>
</tr>
<tr>
<td>June</td>
<td>Review scenarios and provide input</td>
</tr>
<tr>
<td>July</td>
<td>Endorse the preferred scope</td>
</tr>
<tr>
<td>Aug</td>
<td>Approve Implementation Plan</td>
</tr>
<tr>
<td>Sept</td>
<td>Public Open House (2)</td>
</tr>
<tr>
<td>Oct</td>
<td>Public Open House</td>
</tr>
<tr>
<td>Nov</td>
<td>Public Open House</td>
</tr>
<tr>
<td>Dec</td>
<td>Public Open House</td>
</tr>
</tbody>
</table>

**Legend:**
- **Blue diamond:** Steering Committee Meeting
- **Green diamond:** Executive Committee Meeting
- **Purple diamond:** Open House

---

**Note:**
- This schedule outlines the key events and milestones for the project, from kickoff to implementation and approval stages.
- Each event is color-coded and linked with diamond icons for visual clarity.
- The schedule is color-coded to highlight different steps and phases of the project.
More information:

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