Puget Sound Gateway Program
SR 167 Completion
Steering Committee Meeting No. 2
May 9, 2016

CRAIG J. STONE, PE GATEWAY PROGRAM ADMINISTRATOR
STEVE FUCHS, PE SR 167 PROJECT MANAGER
Agenda

• Welcome & Introductions
• Travel Demand Forecasting Model
• Review of Project Needs
• Practical Solutions Approach
• Next Steps
**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.
SR 167 Steering Committee 2016 Work Plan

Determine Needs

Define Performance Metrics

Develop Scenarios

Stakeholder Endorsement of Scope

Funding & Phasing

Recommend Implementation Plan

We are here
Context for the Project

- PSRC 2040
- Comprehensive Plans
- Urban and Manufacturing Industrial Centers
- Input from stakeholders
Context for Project

- PSRC 2040
- Comprehensive Plans
- Urban and Manufacturing Industrial Centers
- Input from stakeholders
- Projected travel patterns
Previous Traffic Forecasting

• High levels of peak period demand
• Used state-of-the-art forecasting that was available at the time (2006 PSRC)
  • Second generation tolling methodology by time of day
  • No full scale micro-simulation analysis
Current Traffic Forecasting

- Still showing travel demand growth
- State-of-the-art forecasting (2015 PSRC)
  - Time of day demand
  - Newest trip generation inputs (2010)
  - Greater network and transit resolution
  - Capacity constraints reflected
- Enhanced tolling analysis
  - Legislative intent to toll
Proposed Project Subarea
SR 167 Traffic Forecasting Approach

Assumed Transportation Projects
- Local agency plans
- WSDOT regional projects
- Sound Transit 3

Trucks
- Limited truck data available
- PSRC truck module (updated)
- Exploring freight flow data
- Existing truck counts (Tideflats, PSRC)
- Tacoma marine terminal truck info
SR 167 Traffic Forecasting Approach

Model Input (cont.)

• 2015/2025/2045
• PSRC Land Use Vision forecasts
• Area specific forecasts
  • Comprehensive Plans
• Land use distributions
SR 167 Traffic Forecasting Application

Data extracted from the model
  • By facility and area:
    • Future year demands
    • Travel time
    • Delay
SR 167 Traffic Forecasting Application

Discussion
Legislative & WSDOT Executive Order – Practical Solutions

- **WSDOT Executive Order 1096:**
  - WSDOT will design transportation infrastructure related solutions that are targeted to **address the essential needs of a project, not every need.** In doing so, designs are developed with criteria that achieve stated performance for the least cost…

- **ESHB 2012:**
  - **(1)(a)** For projects identified as connecting Washington projects…The legislature encourages the department to continue to institutionalize innovation and collaboration in design and project delivery with an eye toward the most efficient use of resources. **In doing so, the legislature expects that, for some projects, costs will be reduced during the project design phase due to the application of practical design**
Review of Project Needs

2006 EIS Purpose and Need:

Purpose:

• Improve regional mobility of the transportation system to serve multimodal local and port freight movement and passenger movement between (1) the Puyallup termini of SR 167, SR 410, and SR 512 and (2) the I-5 corridor, the new SR 509 freeway, and the Port of Tacoma.

Need:

• Complete transportation system linkages, accommodate travel demand and capacity needs, and improve intermodal relationships.
Review of Project Needs

2006 EIS Objectives:
• Support local and regional comprehensive planning and development
• Relieve local congestion & improve safety
• Serve multimodal local/port freight & passenger vehicles
• Improve system continuity and regional mobility
• Improve air quality
• Design project in an environmentally responsible manner
• Provide cost-effective alternatives and solutions
Practical Solutions Approach

![Diagram showing the Practical Solutions Approach]

- **Section 1**: Understand the Project Need including the contributing factors
- **Section 2**: Consider the Context
- **Section 3**: Evaluate Design Controls
- **Section 4**: Formulate & Evaluate Alternatives that meet the need
- **Section 5**: Document selection of Design Elements
- **Section 6**: Document selection of Dimensions

* Basis of Design

We are here
## Essential Needs

<table>
<thead>
<tr>
<th>Essential Needs Meeting 1</th>
<th>Updated Essential Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Complete freeway network (close the gap)</td>
</tr>
<tr>
<td>2</td>
<td>Improve freight travel time and reliability</td>
</tr>
<tr>
<td>3</td>
<td>Improve freight travel time and reliability</td>
</tr>
<tr>
<td>4</td>
<td>Ease congestion on local streets by providing direct freeway access to Port of Tacoma</td>
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<tr>
<td>5</td>
<td>Support Regional Growth Centers for Tacoma, Puyallup, Auburn &amp; Kent and Industrial Centers for Tacoma, Frederickson, Kent &amp; Sumner-Pacific (Proposed)</td>
</tr>
<tr>
<td>6</td>
<td>Improve transit operations and connections to transit</td>
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## Contextual Needs

<table>
<thead>
<tr>
<th>Contextual Needs Meeting 1</th>
<th>Updated Contextual Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 • Support local and regional comprehensive planning and economic development</td>
<td>Moved to Essential Needs <em>(part of economic vitality)</em></td>
</tr>
<tr>
<td>2 • Improve access to Tacoma, 2\textsuperscript{nd} largest city in Puget Sound, Pierce County’s civic, cultural, and economic hub</td>
<td>Moved to Essential Needs <em>(part of travel time and reliability)</em></td>
</tr>
<tr>
<td>3 • Improve connectivity across the Puyallup/White River Valley in support of distribution centers</td>
<td>Moved to Essential Needs <em>(part of urban centers concept)</em></td>
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<tr>
<td>4 • Reduce the number of serious injury and fatal crashes on local arterials</td>
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<tr>
<td>5 • Decrease demand on local arterials, decreasing delay and increasing safety</td>
<td>Moved to Essential Needs <em>(part of reduce hours of delay in the subarea network)</em></td>
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</tbody>
</table>
## Contextual Needs - Continued

<table>
<thead>
<tr>
<th>Contextual Needs Meeting 1</th>
<th>Updated Contextual Needs</th>
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<tbody>
<tr>
<td><strong>6</strong></td>
<td>Moved to Essential Needs (part of travel time reliability)</td>
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<tr>
<td>• Improve ability to get products from Eastern Washington to the Port of Tacoma</td>
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<td><strong>7</strong></td>
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</tbody>
</table>
| • Provide pedestrian connectivity  
  • Provide bicycle connectivity | • Reduce pedestrian vehicle exposure  
  • Continuity and consistency of pedestrian and bicycle facilities |
| **8**                     |                         |
|                           | • Maintains forward compatibility with EIS |
| **9**                     |                         |
|                           | • Reduce right of way impact |
| **10**                    |                         |
|                           | • Reduce area of impact to sensitive areas |
| **11**                    |                         |
|                           | • Compatibility with Sound Transit ST3 |
### Scenario Comparison Table – SR 167

<table>
<thead>
<tr>
<th>Performance Category</th>
<th>Baseline Performance Metrics</th>
<th>Contextual Performance Metrics</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mobility</td>
<td>Economic Vitality</td>
<td>Safety</td>
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<tr>
<td>Mode</td>
<td>Freight</td>
<td>Transport</td>
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<td>helicopter</td>
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<td>Flight</td>
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<td>Bullet</td>
<td>Transport</td>
<td>Air</td>
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<td>Fixed-wing</td>
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<tr>
<td>Performance Metric</td>
<td>Flow Rate</td>
<td>Travel Time Reliability</td>
<td>Cost</td>
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<tr>
<td></td>
<td>Congestion</td>
<td>Between Centers</td>
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<td></td>
<td>Access</td>
<td>Inter-County</td>
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<tr>
<td></td>
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<td>Access</td>
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<td>Mobility</td>
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<td>Maintenance</td>
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<td>Safety</td>
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<td>Active Mobility</td>
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<td>Environment</td>
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<tr>
<td></td>
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<td>Other</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Scenario</th>
<th>No Build</th>
<th>Scenario 1 - Closing the Gap</th>
<th>Scenario 2 - Moderate Connectivity</th>
<th>Scenario 3 - Gateway</th>
<th>Scenario 4 - Full Connectivity</th>
<th>Scenario 5 - Full Build Out</th>
</tr>
</thead>
</table>

**Performance Trade-Offs Discussion and Recommended Preferred Scenario**

**Safety Performance**

Note: Practical design will not compromise safety, even if your project isn’t specifically a safety project. This is consistent with the Strategic Safety Plan – Target Zero.

The intent here is to understand the degree that multimodal safety is addressed. In some cases, after considering the performance trade-offs, a neutral score may be appropriate. However, additional countermeasures or treatments additive to the basic scenarios may be considered to improve the performance scores.

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**WSDOT**
Developing Scenarios
Developing Scenarios
Developing Scenarios
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Developing Scenarios
## Project Schedule (SR 167)

<table>
<thead>
<tr>
<th>Mar</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
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<th>Sept</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
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<tr>
<td>Kick-off</td>
<td>Methodology review</td>
<td>Preliminary scenarios and evaluation results</td>
<td>Present refined scenarios</td>
<td>Recommend scope</td>
<td>Endorse the preferred scope</td>
<td>Construction staging &amp; funding</td>
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<td>1</td>
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</tr>
<tr>
<td>Kick-off</td>
<td>Public Open House</td>
<td>Review scenarios and provide input</td>
<td></td>
<td>Approve Implementation Plan</td>
<td>Public Open House</td>
<td></td>
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</tbody>
</table>

- **Steering Committee Meeting**
- **Executive Committee Meeting**
- **Open House**
More information:

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