A rendering of the SR 99 tunnel, which will have two 11-foot lanes with an eight-foot safety shoulder and a two-foot shoulder in each direction.
The SR 99 tunnel will be equipped with state-of-the-art ventilation, fire detection and suppression, security and lighting systems.
Toll Revenue Available to Support Project Financing

- Net revenues provide the cash flow to support financing
  - Toll collection costs, tunnel operations and maintenance costs, and insurance are paid first out of gross revenues
  - Investors want assurances that the revenue generating facility will be maintained
- Not all of net revenues can be used to repay principal and interest on debt
  - A portion of net revenues need to be retained for debt service coverage and/or other reserves
  - Accumulated coverage revenues can later be used to fund periodic repair and replacement (R&R) costs
Toll Diversion and Revenue Risk

- Financing costs will depend on investors' views toward various risks
  - Higher risks could mean higher interest rates, coverage, and/or reserve requirements, all of which would yield less project funding
- Traffic and revenue risk from toll diversion is a key focus
- SR 99 tunnel has several viable alternative routes
  - This likely increases its revenue risk from toll diversion compared to local bridges
- More / better diversion opportunities increase the need to optimize tolls with a variable rate schedule
  - Lower tolls at times when alternatives are relatively uncongested and attractive help to keep traffic in the tunnel
User – Owner – Investor Relationships

SR 99 Users

Pay tolls

Toll Collection Vendor

Pay collection costs

Transfer revenues

WSDOT (Owner)

Loan $$ for capital

Repay $$ with interest

Investors

Pay capital and maintenance costs

Travel benefits (time savings) provided by tunnel
### Key Roles and Responsibilities in Toll Project Financing

<table>
<thead>
<tr>
<th>State Legislature</th>
<th>WSDOT (Project Owner)</th>
<th>Toll Authority (Wash. Trans. Commission)</th>
<th>Office of the State Treasurer</th>
<th>State Finance Committee</th>
</tr>
</thead>
</table>
| • Authorizes tolling  
• Authorizes sale of bonds | • Authorizes tolling  
• Authorizes sale of bonds | • Prepare project financial plan  
• Project development & delivery  
• Oversee prep of traffic & revenue projections | • Appropriate toll revenue  
• Maintain Toll Authority’s powers | • Financial planning in developing & testing proposed toll rate schedule  
• Certify toll sufficiency to meet bond covenants | • Develop & test proposed toll rate schedule  
• Toll collection & customer service  
• Operate, maintain & insure the facility | • Ensure adopted tolls are sufficient to meet all obligations | • Adopt Master Bond Resolution  
• Support sale of bonds  
• Investor relations/ maintain tax exempt status | • Ensure tolls are sufficient to meet obligations  
• Sell bonds  
• Administer accounts for debt repayment |

**Note:** The State Finance Committee is composed of the Governor, the Lieutenant Governor, and the Treasurer.
Advisory Committee on Tolling and Traffic Management
Meeting 6, Sept. 19, 2012
Small Groups Material – Toll Collection Costs

Toll Transaction Process, Functions, and Costs

<table>
<thead>
<tr>
<th>Process</th>
<th>Functions</th>
<th>Cost Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transaction Recording</td>
<td>Toll Collection Systems (TCS) identify and record transactions via transponder readers and camera equipment designed to capture vehicle license plates.</td>
<td>- Maintenance of toll collection equipment, communications network, signage, and other IT components</td>
</tr>
</tbody>
</table>
| Transaction Processing | Customer Service Center (CSC) collects transaction data from TCS, provides manual review and reconciliation of Pay By Mail transactions, maintains Good To Go! accounts, and provides general customer service. | - Annual auditing to ensure functionality and reliability of toll equipment.  
                                  |                                                                           | - Routine software updates to toll collection systems. |
| Transaction Posting/Invoicing | State Oversight provides management, accounting, marketing, and other support to supplement vendor operations. | - Vendor operations costs include:  
                                  |                                                                           |   - Service center rent, supplies, materials, phones, computers, utilities, etc. |
| Transaction Payments   |                                                                           | - Staffing (image reviewers, customer service reps, IT support, accounting, and management) |
|                       |                                                                           | - State operations costs include:  
                                  |                                                                           |   - Pay By Mail printing and postage |
|                       |                                                                           |   - Office rent, supplies, materials, phones, computers, utilities, etc. |
|                       |                                                                           |   - Staffing (marketing, accounting, IT support, and management) |
|                       |                                                                           |   - Consultant support |

Alaskan Way Viaduct Replacement Program
How are shared statewide toll program costs allocated between facilities?

- The pie chart on the right represents a greater number of facilities, and therefore a higher cost overall.
- Statewide customer service center costs are shared based on percentage of non-cash transactions at each facility.
- Most state oversight costs are shared based on the percentage of all transactions at each facility.
How would SR 99 toll revenues be used?
The Alaskan Way Viaduct replacement projects are estimated to cost $3.1 billion. Of this amount, tolling is anticipated to contribute $200 million for tunnel construction. In order to utilize this funding during construction, the State of Washington must borrow against future toll revenues by issuing toll-backed bonds. Bond payments, including principal and interest, as well as other financing costs will be covered by the projected toll revenue stream over a 30-year period.

In addition to construction funding, toll revenue will also provide a reliable funding stream for operations, maintenance, and other ownership costs of the tunnel and toll-related expenses. These costs are assumed to be funded before making debt-related payments to ensure the facility is operated and maintained to necessary standards. Examples of these costs include:

**Toll collection costs**
- Toll collections equipment on SR 99 and statewide customer service.
- Credit card fees.
- Postage for mailing toll invoices.
- State support staff: Toll operations including information technology, accounting and audit, marketing, customer service and program management.
- Maintenance of toll collection systems.

**Tunnel ownership costs**

*SR 99 tunnel operations and maintenance (facility O&M)*
- Incident response teams.
- Maintenance of lighting; heating, ventilation and air conditioning; and electrical systems.
- Maintenance of fire, life and safety systems.

*SR 99 tunnel long-term, periodic repair and replacement (facility R&R)*
- Repaving and restriping.
- Replacement of fans and HVAC systems.
- Electrical and software upgrades for fire, life and safety systems.

**Facility insurance**

**Financing costs**
- Principal and interest payments (debt service).
### Toll rate ranges by scenario

<table>
<thead>
<tr>
<th>Scenario</th>
<th>High Toll Benchmark</th>
<th>Scenario 1</th>
<th>Scenario 2</th>
<th>Scenario 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1</td>
<td>$1</td>
<td>$0.75</td>
<td>$0.75</td>
<td>$0.75</td>
</tr>
<tr>
<td>$2</td>
<td>$2</td>
<td>$1</td>
<td>$2</td>
<td>$2</td>
</tr>
<tr>
<td>$3</td>
<td>$3</td>
<td>$1.25</td>
<td>$2.25</td>
<td>$2.50</td>
</tr>
<tr>
<td>$4</td>
<td>$4</td>
<td>$3.25</td>
<td>$2.25</td>
<td>$2.50</td>
</tr>
</tbody>
</table>

### Revenue Collected from Tolls

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Revenue Collected from Tolls*</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Toll Benchmark</td>
<td>$1,340</td>
</tr>
<tr>
<td>Scenario 1</td>
<td>$1,220</td>
</tr>
<tr>
<td>Scenario 2</td>
<td>$770</td>
</tr>
<tr>
<td>Scenario 3</td>
<td>$980</td>
</tr>
</tbody>
</table>

### Toll Collection Costs**

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Toll Collection Costs**</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Toll Benchmark</td>
<td>$220 to $280</td>
</tr>
<tr>
<td>Scenario 1</td>
<td>$230 to $300</td>
</tr>
<tr>
<td>Scenario 2</td>
<td>$200 to $260</td>
</tr>
<tr>
<td>Scenario 3</td>
<td>$210 to $260</td>
</tr>
</tbody>
</table>

### Tunnel Ownership: Operations and Maintenance

- High Toll Benchmark: $170
- Scenario 1: $180
- Scenario 2: $80
- Scenario 3: $290 to $340

### Tunnel Ownership: Repair and Replacement

- High Toll Benchmark: $630 to $690
- Scenario 1: $490 to $560
- Scenario 2: $80 to $140
- Scenario 3: $290 to $340

### Facility Insurance Costs***

- High Toll Benchmark: $170
- Scenario 1: $180
- Scenario 2: $80
- Scenario 3: $140 to $180

### Net Revenue

- High Toll Benchmark: $630 to $690
- Scenario 1: $490 to $560
- Scenario 2: $80 to $140
- Scenario 3: $290 to $340

Numbers represent estimates for approximately 30 years. Costs in millions of dollars.

- * After adjustments for fees, credits and uncollectible accounts.
- ** Varies based on number of operational toll facilities.
- *** Insurance study in progress.

### Potential Project Funding

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Net Revenue*</th>
<th>Potential Financing and Coverage**</th>
<th>Potential Project Funding**</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Toll Benchmark</td>
<td>$630</td>
<td>$380 to $420</td>
<td>$210 to $250</td>
</tr>
<tr>
<td>Scenario 1</td>
<td>$490</td>
<td>$280 to $320</td>
<td>$170 to $210</td>
</tr>
<tr>
<td>Scenario 2</td>
<td>$80</td>
<td>$110 to $150</td>
<td></td>
</tr>
<tr>
<td>Scenario 3</td>
<td>$290</td>
<td>$140 to $180</td>
<td>$110 to $150</td>
</tr>
</tbody>
</table>

Costs in millions of dollars.

Likely couldn't finance scenario 2 for tunnel project funding.

- * The low end of the net revenue range was assumed for financial calculations.
- ** This is a preliminary calculation and requires analysis by the Office of the State Treasurer.