### South Sounder Capital Improvements Program

<table>
<thead>
<tr>
<th>Subarea</th>
<th>South King/Pierce</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Mode</td>
<td>Commuter Rail</td>
</tr>
<tr>
<td>Facility Type</td>
<td>Infrastructure Improvement</td>
</tr>
<tr>
<td>Length</td>
<td>N/A</td>
</tr>
<tr>
<td>Date Last Modified</td>
<td>July 1, 2016</td>
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</tbody>
</table>

**SHORT PROJECT DESCRIPTION**

This project would establish a program of capital elements that would be used to improve South Sounder access, capacity, and services in response to increases in demand. Program elements could include platform extensions, track and signal upgrades and other related infrastructure to facilitate additional capacity, and access elements such as improvements for pedestrians, bicyclists, buses, and private vehicles, prioritized per Sound Transit’s System Access Policy.

*Note: The elements included in this representative project will be refined during future phases of project development and are subject to change.*

**REGIONAL LIGHT RAIL SPINE**

Does this project help complete the light rail spine? No

**CAPITAL COST**

Cost in Millions of 2014 $ $934

**RIDERSHIP**

2040 daily project riders TBD – subject to further analysis

**PROJECT ELEMENTS**

Capital investments to improve South Sounder access, capacity, and services may include, but are not limited to:

- Platform extensions to accommodate 10-car train sets which include:
  - Extend boarding platforms at existing Sounder stations to accommodate 10-car train lengths
  - Platforms will be extended by up to 255 feet at all stations, where necessary
  - Relocate Kent Station platform features to prevent blockage of nearby street(s) during boarding/deboarding
  - Extension of the Auburn platform to accommodate 10-car train sets only on the west side. East side platform will be extended to accommodate 8-car train sets only.
  - Modifications, where needed, to allow platform extensions such as signals, sidewalks, relocation of existing platform elements, signage, and illumination
  - Raise existing platforms to height closer to level boarding
  - Special traffic control to address confined site and working near active railroad

- Acquisition of additional fleet

- System access improvements such as:
  - Pedestrian improvements within one-quarter mile of the stations
  - Bicycle storage infrastructure for station users, and bicycle access improvements within one-half mile of the stations
  - Transit speed and reliability improvements on routes connecting to the stations
### KEY ATTRIBUTES

**PROJECT ELEMENTS**
- Off-site parking along bus routes with frequent connections to South Sounder stations during peak periods
- Expanded or new drop off/pick up areas at the stations
- Additional bus/transfer facilities at the stations
- Expanded parking capacity
- Non-motorized access facilities (bicycle/pedestrian, including bicycle storage) (See separate document titled “Common Project Elements”)

- Elements to support potential expanded service levels, which would be determined by the ST Board in collaboration with partner agencies and organizations, could include, but not be limited to:
  - Acquisition of operating rights and real property rights
  - Related track and signal improvements between Tacoma and Seattle
  - Up to 3 Sounder stations modified at platforms to accommodate additional train volumes
  - Replacement of gated signal crossings as needed
  - Roadway improvements associated with track

**NOT INCLUDED**
- Extensions to Tacoma Dome Station platforms
- Stormwater requirements for leased temporary stalls
- Payments to jurisdictions for use of existing jurisdiction-owned parking stalls for temporary parking during construction
- Retail uses in new structures; transit-oriented development
- Track improvements funded by ST2
- See separate document titled “Common Project Elements”

**ISSUES & RISKS**
- Determination by FRA, FTA, and BNSF (for platforms on BNSF ROW) regarding retrofit of existing platforms to height closer to level boarding for ADA access
- Auburn Station may have significant challenges to construct platform extension due to the Stampede Pass rail junction immediately south of the existing station
- The extension to 10 car platforms may not be possible at all stations, requiring passengers to de-board through adjoining rail cars (Auburn, and potentially new stations in Tillicum and DuPont)
- The overall station area development agreements with jurisdictions, King County Metro, and/or BNSF may need to be amended
- Poor soil conditions are present in the study area and hazardous materials remediation may be required
- Special traffic control to address confined site and working near an active rail line
- Future freight and other passenger rail trains on the BNSF corridor between Tacoma and Seattle
- Agreement(s) with BNSF to operate Sounder service at certain levels would be necessary and could be affected by expectations of future freight markets and operations
- BNSF agreement will be needed to construct necessary improvements or to purchase necessary real property and operating rights
South Sounder Capital Improvements Program

Sound Transit developed a conceptual scope of work for this project for the purpose of generating a representative range of costs, both capital and operating; and benefits, including ridership forecasts, TOD potential, multi-modal access and others. This information was developed to assist the Sound Transit Board as it developed the ST3 system plan, including phasing of investments and financial plan, for voter consideration. Final decisions on project elements (e.g., alignment, profile, station locations, and number of parking stalls) will be determined after completion of system planning, project level environmental review, and preliminary engineering during which additional opportunities for public participation will be provided. Therefore, this scope definition should not be construed as a commitment that all representative features will be included in the final developed project.

Long Description:
This project will establish a program of capital elements that would be used to improve South Sounder access, capacity, and services. Elements of the project may include, but are not limited to, expanding existing south Sounder station platforms to accommodate 10-car train sets, planning and implementation of investments to improve access to the South Sounder train stations, including improvements for pedestrians, bicyclists, buses, and private vehicles, expanding Seattle-Tacoma-Lakewood Sounder service beyond current service levels. Funds included for system access improvements would be prioritized per Sound Transit’s System Access Policy. Track improvements for the purpose of accommodating additional service will also be implemented. Track improvements may include elements such as additional main line track, turnouts, gated signals, station platform rebuilds, and associated roadway improvements.

Assumptions:
- Extended platforms at King Street, Tukwila, Kent, Puyallup, Sumner, South Tacoma, and Lakewood to accommodate 10-car train sets
- Tacoma Dome platform extension would occur as part of the Tacoma Trestle Track and Signal and Amtrak Station relocation projects
- Costs associated with extending the existing platform one car length and raising it from its current height (8 inches above top of rail) to approximately 15 inches above top of rail and constructing an extension at the same height; platform heights will be determined through coordination with FRA, FTA, and BNSF
- The Auburn station platform would be extended to accommodate 8-car trains only on the east side due to physical constraints from the Stampede Pass freight rail spur to the west, SR 18 highway columns, and West Main Street intersection. It is anticipated that a 10-car train platform extension would be feasible to construct and operate on the west side.
- New platforms at the Tillicum and DuPont stations would be constructed to accommodate up to 10-car trains (See separate document titled “Sounder Extension to DuPont”). Should this not be feasible at one or both stations, it is anticipated that 10-car trains would still serve them, but operationally, doors on some cars would not open for passenger loading and unloading
- System operation requires placement of a mini-high for ADA passenger access at the same car location at every station
- Sounder platform function would remain open during the construction period and users will be protected during construction
- Additional yard storage to accommodate 10-car train sets
- Construction of access improvements should be phased to maintain operation of the stations, including alternate routing of Metro, Pierce Transit, and ST buses
- Special traffic control during construction of access improvements to address confined sites and working near an active railroad
- Potential track improvements along sections of the corridor from Bay Street/TR Junction in Tacoma to King Street Station in Seattle
- Track improvements from Ellingson Road in Auburn to S 277th Street in Kent were included as part of ST2, and are excluded
- Track improvements from James Street in Kent to Black River in Seattle were included as part of ST2, and are excluded
- For non-motorized station access allowances, the Tacoma Dome Station is categorized as an Urban station and an Intermodal Transit Center, the Auburn station is categorized as an Urban station, and all other stations are categorized as Suburban stations

Environmental:
Sound Transit will complete project-level state and federal environmental reviews as necessary; provide mitigation for significant impacts; obtain and meet the conditions of all required permits and approvals; and strive to exceed compliance and continually improve its environmental performance.

Utilities:
Utility relocation as needed to complete the project, including fiber optics, sewer, water, overhead electric/communications, etc.

Right-of-Way and Property Acquisition:
- BNSF agreement and possible local jurisdiction agreements for right-of-way use
- Purchase of nearby properties for new parking facilities and/or other access improvements
- Costs associated with obtaining waiver(s) of jurisdictions’ zoning requirements related to height of parking structures and inclusion of other uses in parking structures, such as street-level retail
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Potential Permits/Approvals Needed:
- Building permits: Electrical, Mechanical, Plumbing
- Utility connection permits
- Construction-related permits (clearing and grading, stormwater management, street use, haul routes, use of city right-of-way)
- Land use approvals (Conditional use, design review, site plans, Comprehensive Plan or development code consistency, Special Use Permits)
- BNSF
- All required local, state, and federal environmental permits
- NEPA/SEPA and related regulations

Project Dependencies:
- BNSF agreement needed to permit construction
- Tacoma Trestle project and Point Defiance Bypass project completion
- Determination by FRA, FTA, and BNSF regarding retrofit of existing platforms
- Amendments may be required to existing agreements with the jurisdictions, BNSF, King County Metro and/or Pierce Transit to facilitate construction
- Sound Transit will need to acquire real property and operating rights from BNSF.

Potential Project Partners:
- WSDOT
- Amtrak
- BNSF
- Cities of Lakewood, Tacoma, Puyallup, Sumner, Auburn, Kent, Tukwila, Seattle
- FTA
- FRA
- Transit Partners Also Serving Project: King County Metro, Pierce Transit
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Cost:
Sound Transit developed a conceptual scope of work for this project for the purpose of generating a representative range of costs, both capital and operating; and benefits, including ridership forecasts, TOD potential, multi-modal access and others. This information was developed to assist the Sound Transit Board as it developed the ST3 system plan, including phasing of investments and financial plan, for voter consideration. Final decisions on project elements (e.g., alignment, profile, station locations, and number of parking stalls) will be determined after completion of system planning, project level environmental review, and preliminary engineering during which additional opportunities for public participation will be provided. Therefore, this scope definition should not be construed as a commitment that all representative features will be included in the final developed project.

In Millions of 2014$

<table>
<thead>
<tr>
<th>ITEM</th>
<th>COST</th>
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<tbody>
<tr>
<td>Agency Administration</td>
<td></td>
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<tr>
<td>Preliminary Engineering &amp; Environmental Review</td>
<td></td>
</tr>
<tr>
<td>Final Design &amp; Specifications</td>
<td></td>
</tr>
<tr>
<td>Property Acquisition &amp; Permits</td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td></td>
</tr>
<tr>
<td>Construction Management</td>
<td></td>
</tr>
<tr>
<td>Third Parties*</td>
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</tr>
<tr>
<td>Vehicles</td>
<td></td>
</tr>
<tr>
<td>Contingency</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$934</strong></td>
</tr>
</tbody>
</table>

*Permitting and Startup costs included

Design Basis: Conceptual
# Evaluation Measures:

<table>
<thead>
<tr>
<th>MEASURE</th>
<th>MEASUREMENT/RATING</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regional Light Rail Spine</strong>&lt;br&gt;Does project help complete regional light rail spine?</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td><strong>Ridership</strong>&lt;br&gt;2040 daily project riders</td>
<td>TBD – subject to additional analysis</td>
<td></td>
</tr>
<tr>
<td><strong>Capital Cost</strong>&lt;br&gt;Cost in Millions of 2014 $</td>
<td>$934</td>
<td></td>
</tr>
<tr>
<td><strong>Annual O&amp;M Cost</strong>&lt;br&gt;Cost in Millions of 2014 $</td>
<td>TBD – subject to additional analysis</td>
<td></td>
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<tr>
<td><strong>Travel Time</strong>&lt;br&gt;In-vehicle travel time along the project (segment)</td>
<td>TBD – subject to additional analysis</td>
<td></td>
</tr>
<tr>
<td><strong>Reliability</strong>&lt;br&gt;Quantitative/qualitative assessment of alignment/route in exclusive right-of-way</td>
<td>Medium-High</td>
<td>Some at grade crossings</td>
</tr>
<tr>
<td><strong>System Integration</strong>&lt;br&gt;Qualitative assessment of issues and effects related to connections to existing local bus service and potential future integration opportunities</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td><strong>Ease of Non-motorized Access</strong>&lt;br&gt;Qualitative assessment of issues and effects related to non-motorized modes</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td><strong>Percent of Non-motorized Access</strong>&lt;br&gt;Percentage of daily boardings</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td><strong>Connections to PSRC-designated Regional Centers</strong>&lt;br&gt;Number of PSRC-designated regional growth and manufacturing/industrial centers served</td>
<td>10 centers</td>
<td>Manufacturing and Industrial Centers: Kent, North Tukwila and Port of Tacoma Regional Growth Centers: Auburn, Kent, Lakewood, Puyallup Downtown, Seattle CBD, Tacoma Downtown and Tukwila</td>
</tr>
<tr>
<td><strong>Land Use and Development/TOD Potential</strong>&lt;br&gt;Quantitative/qualitative assessment of adopted Plans &amp; Policies and zoning compatible with transit-supportive development within 0.5 mile of potential stations&lt;br&gt;Qualitative assessment of real estate market support for development within 1 mile of potential corridor&lt;br&gt;Density of activity units (population and employment for 2014 and 2040) within 0.5 mile of potential stations</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Socioeconomic Benefits</strong>&lt;br&gt;Existing minority / low-income populations within 0.5 mile of potential stations&lt;br&gt;2014 and 2040 population within 0.5 mile of potential stations&lt;br&gt;2014 and 2040 employment within 0.5 mile of potential stations</td>
<td>N/A</td>
<td></td>
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For additional information on evaluation measures, see [http://soundtransit3.org/document-library](http://soundtransit3.org/document-library)