Goals for today

• Respond to Board direction from Sept 2018 and report on Preliminary Engineering results

• Discuss options and next steps
  • System Expansion Committee briefing, today Jan. 9th
  • Potential SEC and Board actions Feb. 13th and 27th
Project overview

- Included in ST3 Plan as infill station (start 2024, open 2031)

- Elevated, side-platform station at NE 130th St and 5th Ave NE in Seattle

- Located along Lynnwood Link Extension (LLE) guideway alignment, 2200 daily riders

- Environmental review addressed in Lynnwood Link Extension FEIS and NEPA Re-Evaluation
Infill station construction disrupts service and impacts customers

Up to 61,000 daily riders potentially affected, nearly 90% from Snohomish and North King subareas

- Service delays due to single-tracking
- Potential system-wide delays could affect many more riders
- Restricted construction window – nighttime construction and higher cost
- Repeated neighborhood impacts
- Mitigation expenses
September 2018 Board discussion

**NE 130th Infill Station**

- Discussed challenges with infill construction and unique opportunity to avoid or minimize disruption to Lynnwood Link Extension service

- Staff directed to complete Preliminary Engineering, develop options, identify costs and benefits and report back
Collaboration with partners

- Conducted a series of workshops on station design and access
- Addressed constructability constraints with the narrow site
- Secured concurrence with City of Seattle and WSDOT on major station elements and footprint
- Transit Integration plans with King County Metro
Preliminary Engineering Results
Original design – separate structures

ST3 Plan

- Guideway designed as separate structure due to timing of LLE and NE 130th projects
- Requires large expansion joint
- Would proceed in 2024 with this design if no further action by Board
Preliminary Engineering design

Integrated structure performs better

• Better customer experience, safer
• Improved seismic performance
• Reduced monitoring and maintenance
• Consistent with other ST station designs
• Likely lower construction cost
• Easier to build
Preliminary Engineering design
Preliminary Engineering design
Design progress

**Completed**
- Integrated station 30% design
- Platform layout
- Plaza size, drop-off locations and footprint

**In progress**
- Desired station access improvements exceed ST3 allowance
- Construction permitting for potentially accelerated schedule
Project cost estimate has increased (2018$)

Original ST3 estimate: $72M
Updated ST3 estimate: ~$174M (incl. $30M difficulty factor)
Updated estimate (integrated design, accel. delivery): ~$144M

• Many factors are attributed to the increase:
  • ST3 estimate based on early LLE estimate, then available
  • Market conditions
  • Additional requirements from updated Sound Transit Design Criteria Manual
  • Better understanding of site constraints
Construction estimate increase is much like other Lynnwood Link stations

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>145th Station (ST2)</td>
<td>$35.3</td>
<td>$55.2</td>
<td>56%</td>
</tr>
<tr>
<td>185th Station (ST2)</td>
<td>$41.3</td>
<td>$52.9</td>
<td>28%</td>
</tr>
<tr>
<td>Mountlake Terrace (ST2)</td>
<td>$38.6</td>
<td>$63.9</td>
<td>66%</td>
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<tr>
<td>Lynnwood Station (ST2)</td>
<td>$35.3</td>
<td>$64.6</td>
<td>83%</td>
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<tr>
<td>130th Station (ST3)</td>
<td>$39.3</td>
<td>$72.0</td>
<td>81%</td>
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Packages for integrated design

Foundation & guideway: ~$11M
Platform & canopy: ~$20M
Plaza & finishes: ~$113M
TOTAL: ~ $144M
Scenarios analyzed
**ST3 Plan – original schedule**

*Restart in 2024, open by 2031*

- Separate station structures
- Results in service disruption and neighborhood impacts
Early partial build

Complete first two packages by 2023
Complete third package later and open by 2031

• Minimizes service & neighborhood disruptions
• Integrated design

Construction Packages
- Foundation & guideway
- Platform & canopy
- Plaza & finishes
Early full build

*Complete all construction packages and open ~2025*

- Avoids most service & neighborhood disruptions
- Integrated design

**Construction Packages**
- Foundation & guideway
- Platform & canopy
- Plaza & finishes
Financial analysis

• Use ST3 Plan timing as a basis for analysis
• Compare early partial build and early full build to ST3 plan timing
• Factors: Capital cost including construction timing and difficulty factor, operations and maintenance, state of good repair, debt service
**Financial impact (2017-2041 in 2018$)**

**Additional costs compared to ST3 Plan timing**

<table>
<thead>
<tr>
<th>Factor</th>
<th>Early partial build</th>
<th>Early full build</th>
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<tbody>
<tr>
<td>Capital Cost</td>
<td>($7M)</td>
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<tr>
<td>O&amp;M Cost</td>
<td>$3M</td>
<td>$8M</td>
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<tr>
<td>SOGR</td>
<td>-</td>
<td>$4M</td>
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<tr>
<td>Debt Service</td>
<td>$11M</td>
<td>$51M</td>
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<tr>
<td>Net Additional Costs</td>
<td>~$7M</td>
<td>~$33M</td>
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Options for Board Consideration
Options for consideration in Feb 2020

1. **No further work, return to original ST3 Plan schedule**

2. **Advance incrementally**
   - Complete final design of entire project
   - Complete construction of foundation/guideway and platform/canopy packages
   - Determine timing for final construction package

3. **Advance fully, open ~2025**
   - Complete final design of entire project
   - Complete construction of all packages
   - Open ~2025
Option 1 – Original ST3 Plan

Return to ST3 Plan schedule
Re-start project in 2024
Complete and open by 2031

- Separate station structures
- Results in service & neighborhood disruptions

Guideway and platform structures have separate foundations and move independently.
**Option 2 – Advance incrementally**

- **Feb 2020:** Consider authorizing final design, and consider authorizing construction of Foundation/Guideway.
- **Q2 2021:** Consider authorizing construction of Platform/Canopy. Consider schedule for Plaza/Finishes.

  - Minimizes service & neighborhood disruptions
  - Integrated design
**Option 3 – Advance fully**

- **Feb 2020:** Consider authorizing final design, consider authorizing construction of Foundation/Guideway. Provide direction to complete the station early and open in ~2025.
- **Q2 2021:** Authorize construction of Platform/Canopy and Plaza/Finishes packages.
- Avoids most service & neighborhood disruptions
- Integrated design

**Construction Packages**
- Foundation & guideway
- Platform & canopy
- Plaza & finishes
## Summary

### Comparison of options 1, 2 and 3

<table>
<thead>
<tr>
<th>Issue</th>
<th>Option 1 ST3 Plan schedule</th>
<th>Option 2 Advance incrementally</th>
<th>Option 3 Advance fully</th>
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<tbody>
<tr>
<td>Integrated design</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
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<td>Service disruption addressed</td>
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<td>Minimized</td>
<td>Mostly avoided</td>
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<tr>
<td>Neighborhood impact addressed</td>
<td>No</td>
<td>Minimized</td>
<td>Mostly avoided</td>
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<tr>
<td>Open for service</td>
<td>2031</td>
<td>TBD</td>
<td>~2025</td>
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Thank you.

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