Enterprise Initiative:
Scenario development & transit operations

Rider Experience & Operations Committee
02/05/2026

SOUNDTRANSIT

Briefing purpose

Why we are here

- Scenario development & transit operations workstream
- Update on transit operations opportunity register
- Review potential resiliency investments under consideration in the Enterprise Initiative
- Review ST3 service assumptions

Scenario development

Rules & expectations

- **Ensure meaningful differences:** Scenarios should reveal real trade-offs and illustrate policy considerations for Board members
- **Focus on what matters:** Prioritize and vary components that truly move the needle
- **Keep it simple:** Complex scenarios collapse under their own weight; clarity is critical
- **Build on existing work:** Leverage cost-savings opportunities as the foundation; supplement with additional technical work
- **Expect a blended outcome:** The eventual ST3 System Plan update put forward to the Board is likely to combine elements from multiple scenarios

Scenario development process

Late 2025

Define scope and approach

- *Establish building blocks by workstream*
- *Define scenario rules and expectations*

January

Develop building blocks

- *Understand what discrete building blocks can achieve*
- *Define evaluation criteria based on Board-defined principles*

February

Develop initial scenarios

- *Engage the Board on building blocks and policy considerations*
- *Assemble draft scenarios reflecting Board input*

March

Board retreat to review scenarios

- *Present plausible, affordable scenarios for Board review*
- *Identify and discuss policy trade-offs*

Building blocks by workstream

Policy & planning

- Policy changes (by Sound Transit or others) that save cost, speed project delivery, or expand financial capacity
- Updated service assumptions based on modified capital program and ridership projections

Transit operations*

- Potential new resiliency investments (e.g., modern signal system, existing tunnel upgrades)
- Revised operating & maintenance and light rail vehicle costs based on updated service assumptions

Capital delivery

- Incorporating cost savings opportunities
- Exploring phasing and sequencing project investments
- Updating cost allocations for shared/systemwide assets
- Considering deferral of some projects

Finance

- Updated financial planning assumptions (e.g., federal grant strategy)
- Policy changes and exercising existing available revenue authority
- Potential third-party funding opportunities

*name changed to align with updated department name

Transit operations opportunity register overview

Opportunity registers overview

Role in the Enterprise Initiative

Objective: identify opportunities for saving costs, speeding project delivery, and expanding financial capacity while still achieving ST3 system plan objectives

Approach: quantify benefits, summarize implementation risks – including financial risk – and assess impacts to operations and passenger experience

- Transit operations opportunity register is focused on system resiliency and cost savings related to operations, maintenance, and asset management
- Work is ongoing to assess benefits, risks, and impacts across each opportunity register
- We will share opportunity registers in advance of the Board retreat

Transit operations opportunity register

Initial takeaways

- Unlike capital delivery, there are no service delivery “levers” that save equivalent costs to phasing implementation of megaprojects
- Transit operations costs are tied to capital program size and schedule and so we will see cost changes based on a modified capital program
- Most cost saving opportunities from service delivery are farther in the future, are contingent, and are incremental (i.e., they “bend the curve”)
- Some opportunities (e.g., resiliency investments) require upfront capital costs to achieve longer lifecycle cost savings

Transit operations opportunity register

Categories of opportunities identified

- Asset management
- Operations and maintenance optimization
- Capital delivery, design efficiencies, and automation
- Governance, revenue, and policy levers

Transit operations opportunity register

Category: Asset management

- Opportunities for maximizing asset maintenance efficiencies including through technology-assisted, data-driven maintenance practices

Potential benefits from these opportunities

- Improved reliability and resiliency of the assets that results in total cost of ownership savings and extended asset life
- Proactive prevention of disruptions

Example cost saving opportunities

- Add special track work in strategic parts of the light rail system to improve headways during planned and unplanned service disruptions
- Transition to a conditions-based maintenance regime

Transit operations opportunity register

Category: Operations and maintenance optimization

- Opportunities for optimizing passenger carrying capacity and utilization of operating and maintenance workforce

Potential benefits from these opportunities

- Improving standardization (e.g., a “kit-of-parts” approach) helps achieve greater cost efficiency, reduces delivery risk, and simplifies maintenance
- Creates efficiencies by reducing the number and distance of non-revenue trips (“deadheads”)

Example cost saving opportunities

- Potential upgrades to existing and planned operations and maintenance facilities and optimization of rail yard design.
- Improvements to light rail vehicle maintenance practices.

Transit operations opportunity register

Category: Capital delivery, design efficiencies, and automation

- Opportunities for maximizing OMF capacity and futureproofing ST3 extensions for potential higher future passenger capacity and eventual automation.

Potential benefits from these opportunities

- Avoids obsolescence-related disruptions on newly built ST3 and supports eventual upgrades and transition of existing infrastructure after ST3 investments come online.

Example cost saving opportunities

- Incorporating upgraded signaling system on newly built ST3 extensions.
- Optimizing vehicle maintenance resources through automated yard movements.

Transit operations opportunity register

Category: Governance, revenue, and policy levers

- Opportunities to assess how transit operations are delivered across Sound Transit modes of service and whether operating models should evolve
- Opportunities to pursue additional revenue through fare/parking policies and infrastructure

Potential benefits from these opportunities

- More efficient delivery of core transit operations
- Potential additional revenue

Example cost saving opportunities

- Explore long-term operating models
- Potential revenue generation from unused fiber bandwidth
- Fare rates, parking fees, and increasing fare compliance

Resiliency considerations in the Enterprise Initiative

Resiliency considerations

Role in the Enterprise Initiative

- The fall update of the 2025 Long Range Finance Plan included a placeholder set of resiliency investments to account for cost risk
- Staff are leveraging ongoing feasibility assessments and conducting additional analysis to inform Enterprise Initiative scenarios
- Work is ongoing to develop cost estimates and assess the benefits, risks, and impacts of these resiliency investments
- Scenarios presented at Board retreat will include potential resiliency investments

Advancing the resiliency program

March 2025 resiliency report identified the following:

Smaller Projects

To address

Near-term state of good repair

Feasibility Studies

To inform

Longer-term capital investment needs

Studies to assess capital investments

Potential investments to improve operational flexibility

- Feasibility studies required to determine cost-benefit of potential investments
- Resiliency report identified the following types of investments:
  - » Adding crossovers
  - » Changes to signaling system to manage obsolescence & increase capacity
  - » Building a Unified Control Center

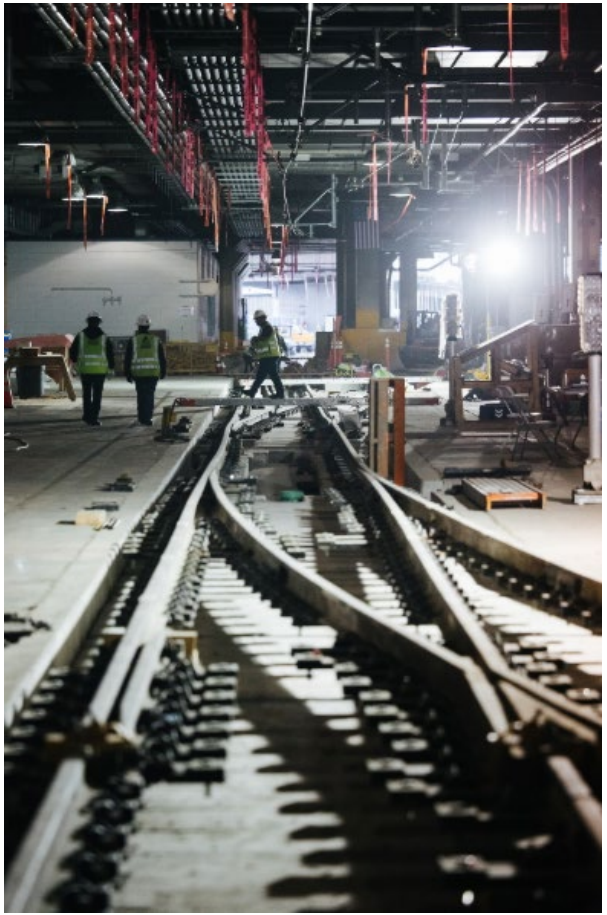
Resiliency improvements

Adding operational flexibility

- New crossover in the downtown Seattle transit tunnel to improve performance when service is disrupted/degraded
- Additional train storage to enable operational flexibility

Benefits to system resiliency

- Improves headways during planned and unplanned disruptions and limits need for bus bridges
- Greater flexibility, especially when faced with LRV-related disruptions



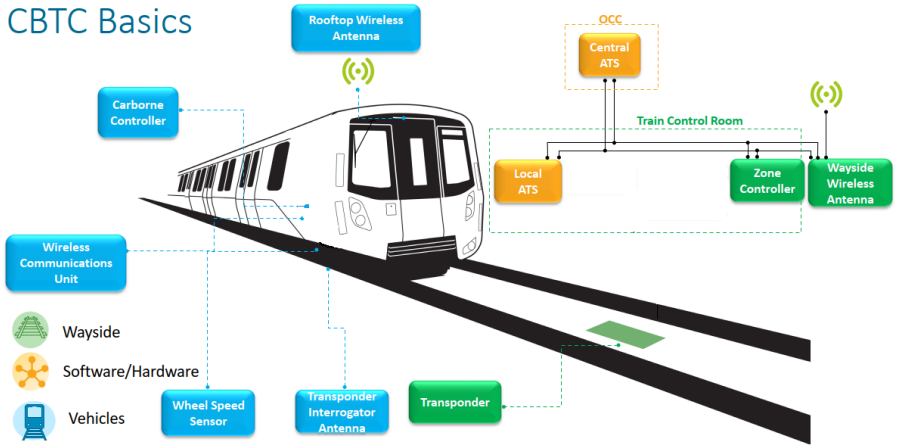
Resiliency improvements

Modernizing signal system

- Advanced communications-based train control to preempt obsolescence risk of existing signal system in 2040s
- Option for increased system automation

Benefits to system resiliency

- Enables more reliable system performance, improved safety, and passenger comfort
- Supports more throughput capacity and futureproofs Link for ridership growth



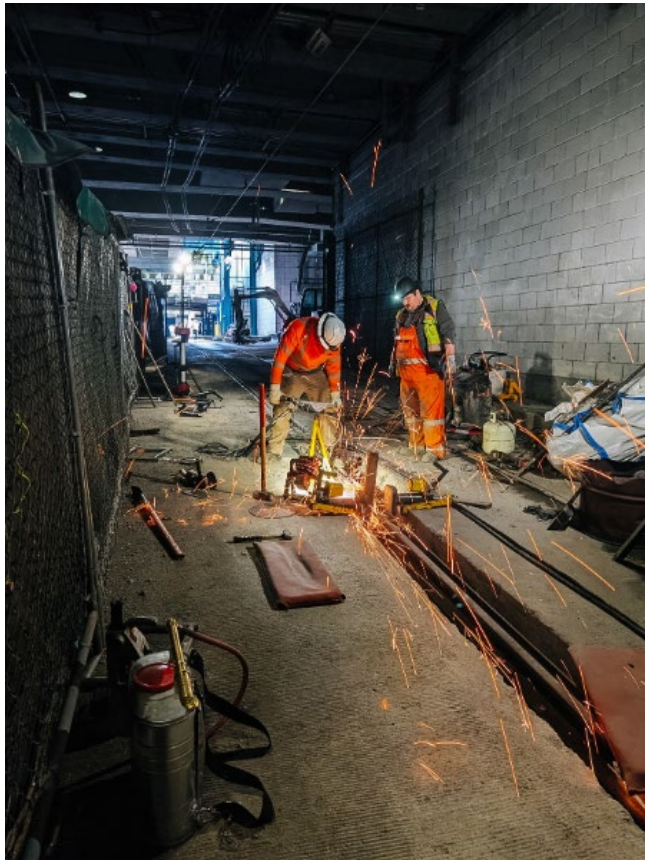
Resiliency improvements

Other potential upgrades

- Fiber network upgrade is planned to support higher bandwidth needs on the existing alignment
- Considering the potential to front-load investment over the next 10 years to reduce long-term risks for assets and drive cost savings over a 30-year horizon

Benefits to system resiliency

- Ensures sufficient resources are in place to maximize resiliency and achieve longer-term cost savings



Transit operations opportunity register & resiliency considerations

Summary

- Some opportunities will require additional analysis to ensure cost savings opportunities are real and achievable
- We are updating and confirming cost estimates for new resiliency investments
- Scenarios presented at the March Board Retreat will include different configurations and schedules associated with resiliency investments

ST3 service assumptions

ST3 service design

Approach in the Enterprise Initiative

- Service design and assumptions influence infrastructure planning and capital costs
- Service design and assumptions also influence project operations & maintenance and state of good repair costs, and light rail vehicle needs
- We plan to revisit service design and assumptions to validate they meet ridership needs and travel patterns based on capital program building blocks
- We will also explore opportunities to design for forward compatibility in support of future service and infrastructure expansion

Link service expansion

Current expansion assumptions

2032: West Seattle Link

2035: Tacoma Dome Link

2037: Everett Link, phase 1

2039: Ballard Link + spine segmentation

- *1 Line: Tacoma-Ballard in new tunnel*
- *2 Line: Redmond-Mariner in existing tunnel*
- *3 Line: West Seattle-Everett in existing tunnel*

2041: Everett Link, phase 2 & Tacoma Link extension

2044: South Kirkland-Issaquah Link

Link service assumptions

- Current operating assumptions:
  - » 1 Line running Tacoma–Ballard
  - » 2 Line running Redmond–Mariner
  - » 3 Line running West Seattle–Everett
  - » 4 Line running South Kirkland–Issaquah
- Planned headways for all lines:
  - » 6-minute peak
  - » 10-minute off-peak
- Assumes combined 3-minute peak service between Mariner and International District/Chinatown

Link service assumptions

Anticipated changes

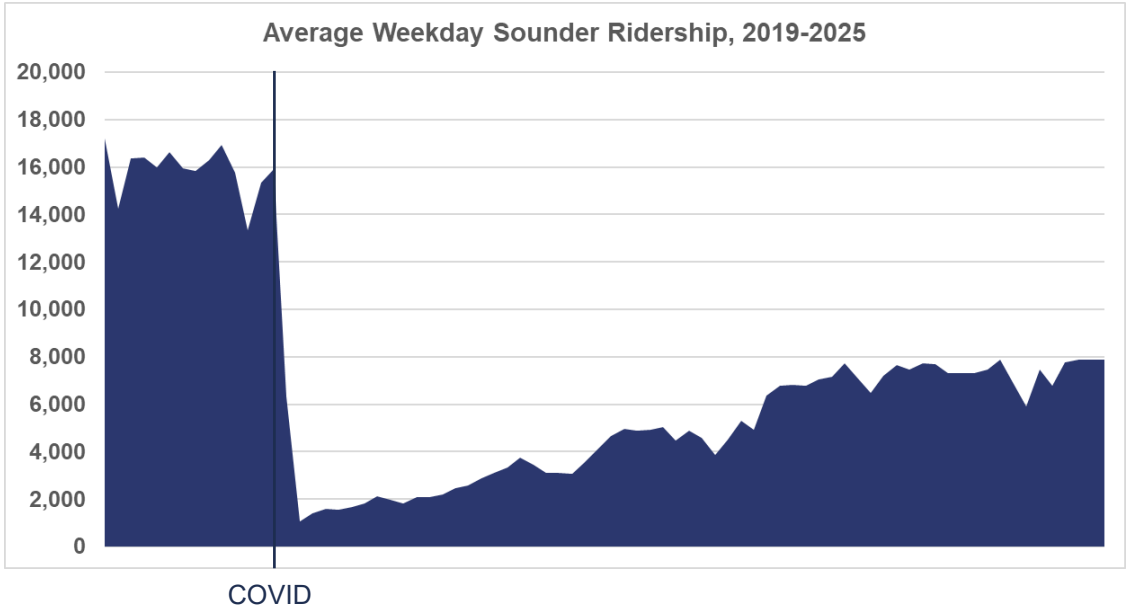
- Capital delivery building blocks will include changes in scope, phasing, and project sequencing
- Service assumptions will be updated based on the capital delivery building blocks
- The Board can also consider additional changes to service levels and line termini

Sounder: Pre-baselined projects

Sounder project	Completion year	Cost estimate (YOE$)
Sounder South: Tacoma Dome Parking & Access Improvements	2032	$23M
Sounder Maintenance Base	2034	$333M
Sounder North: Edmonds & Mukilteo Access Improvements	2034	$87M
Sounder South: Platform Extensions (including King Street Station improvements)	2036	$454M
Sounder South: Access Improvements (Pierce subarea)	2036	$155M
Sounder South: Access Improvements (South King subarea)	2041	$121M
Sounder South: DuPont Extension	2045	$882M
Sounder South: Additional Trips	2046	$1.55B
Total		$3.6B

Changing ridership patterns: Sounder

- Sounder South ridership remains at less than 50% of 2019 demand
- Sounder North ridership remains at less than 65% of 2019 demand
- The current ST3 System Plan reflects capital improvement plans based on conditions, such as crowding, that no longer exist
- The Enterprise Initiative will consider adjusting Sounder for current and future travel demand



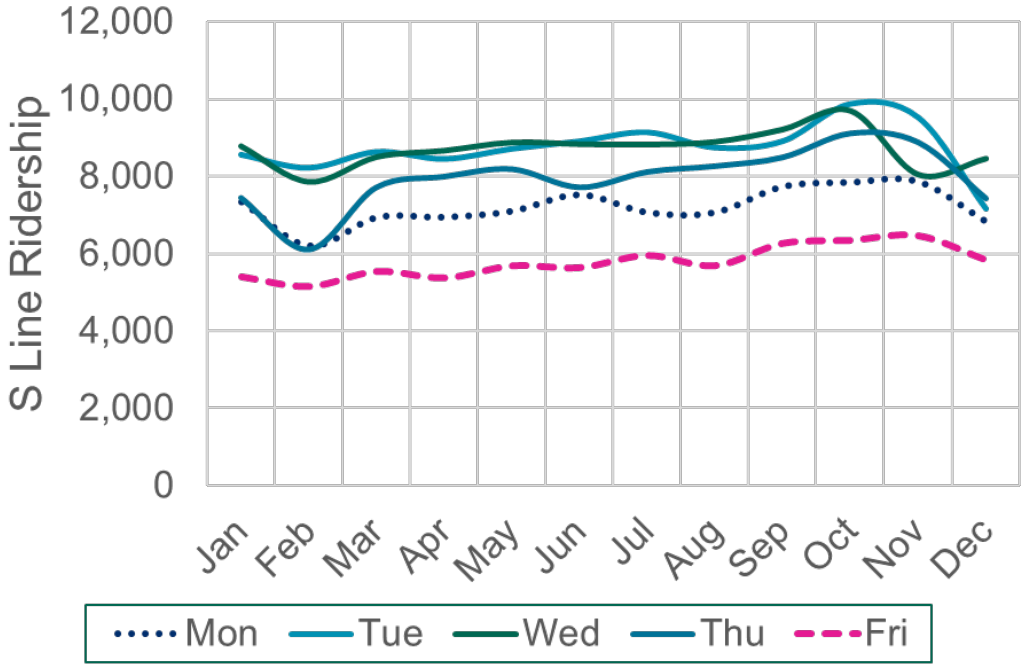
Sounder South: 2025 Ridership

2019

- ~16,000 average weekday boardings

2025

- ~7,700 average weekday boardings
- Friday ridership is ~70% of ridership mid-week



Sounder: Enterprise Initiative considerations

- Maintenance operating model: Sounder base investment enables options for how maintenance function is performed
- Sounder South Line operating model: move from service focused on the peak (commuter rail) to all-day service (regional rail)
- Viability and cost-benefit of maintaining Sounder North Line service levels
- Grant and other coordination opportunities with WSDOT/Amtrak Cascades

Sound Transit Express (STX)

Future role of STX

- Potential changes to the capital program will affect assumptions for STX service
- This will raise considerations related to future asset needs (e.g., fleet, bases) to support STX service, which may have a cost impact
- Assessment of future operating models for STX (partner-operated model) and Stride (contracted service model)
- Ultimately, we will assess and confirm the role and function of STX and overall relationships between ST modes of service

Thank you.

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