



Resolution No. R2023-06

Authorizing work required for a potential East Link Starter Line

Meeting:	Date:	Type of action:	Staff contact:
Board	01/26/2023	Final action	Kimberly Farley, Deputy CEO Ron Lewis, Executive Director, DECM

Proposed action

Authorizing the expenditure of up to \$6 million from the East Link project budget, to be funded by the East King subarea, to complete the work necessary to further develop the option to open a portion of the East Link Extension from South Bellevue Station to Redmond Technology Station (East Link Starter Line). This work will inform a final action to be considered by the Board in Fall 2023 on whether to open the East Link Starter Line for revenue service in Spring 2024.

Key features summary

- Construction issues have delayed the opening of the East Link Extension from June 2023 to approximately Spring 2025. At the request of Board members, staff examined options to open a portion of East Link not impacted by the construction delay in advance of the opening of the full alignment.
- The East Link Extension baseline budget includes sufficient funding to perform the proposed work. However, because the 2023 East Link project scope and budget did not consider a Starter Line, the 2023 budget did not allocate a portion of the available baseline budget to be used for the work associated with the East Link Starter Line.
- The East Link Starter Line would operate between South Bellevue Station and Redmond Technology Station.
- This action would authorize up to \$6 million dollars within the existing 2023 approved East Link Extension budget to be spent on the work required to further develop the option in order to inform the future decision later this year to open the East Link Starter Line in Spring 2024.
- This work includes:
 - Analysis required to make the East Link Starter Line part of the 2024 Service Plan, including Title VI, Fare Equity, and public engagement associated with a major service change
 - Train control and signal control revision to support the Starter Line
 - Software revisions to support train schedule information to third-party apps
 - Passenger Information Management System (PIMS) revisions
 - Systems Construction Management Consultant costs to oversee additional work
 - Safety and security certification
 - Pre-revenue service activities including operator and staff training
 - Passenger information and outreach
 - Passenger and operational signage
 - Potential environmental review
- This action does not increase the overall East Link project baseline budget, and the expenditure would be paid for by the East King subarea. By advancing this action today, the necessary work and

budget to further develop the option to inform a Board decision later this year to open the East Link Starter Line will be in place. The East Link baseline budget has sufficient funds available to complete this work and the construction of the East Link alignment.

- If this action is approved, staff will complete the analysis required to assess the impact of opening the Starter Line on all other extension projects under construction as well as overall transit service.
- In Fall 2023, when the Board is scheduled to approve the next major service change to transit operation, the Board will be asked to consider an action to open the East Link Starter Line.

Background

In August 2022, the Sound Transit Board System Expansion Committee received a briefing on project delays to the East Link, Downtown Redmond Link, Lynnwood Link, and Federal Way Link Extensions.

East Link Extension challenges include construction quality and durability concerns about plinths, the raised concrete structures that support the tracks on the I-90 segment (except for the floating bridge). The contractor's work to fix problems with the plinths supporting the tracks led to the identification of further challenges including issues with mortar pad and rebar placements and track fasteners. The contractor is re-casting the plinths to ensure they resolve the issues and assure the long-term durability, reliability, and safety of the extension.

The original timeframe for opening of the Link extensions was East Link in 2023 followed by Lynnwood Link, Downtown Redmond Link, and Federal Way Link in 2024. Individual risk assessments were performed on the four Link projects in construction, as well as a Programmatic Quantitative Risk Assessment (QRA), to identify likely opening timelines for each project as soon and as safely as possible considering estimates of construction completion and available staff and partner resources.

Based on the results of these assessments, staff have determined that the earliest timeframes the projects could be completed and opened as entire segments/extensions are as follows: Lynnwood Link Extension in Summer/Fall 2024, followed by East Link and Downtown Redmond Link Extension together in Spring 2025. The opening timeframe for Federal Way has not yet been determined but would be after the opening of these other Link Extensions.

This shift in the opening sequence has a negative impact on the opening of Lynnwood Link service since access to Operations and Maintenance Facility (OMF) East is necessary to supply the light rail vehicles required for full-service frequencies on the Lynnwood Link Extension. To provide the full planned service frequencies for the Lynnwood Link Extension, it is critical that the connection to the East Link Extension be opened over I-90 and OMF East be activated and operational.

In light of the schedule and service impacts to East Link and to Lynnwood Link due to the issues with the track plinths on the I-90 segment, Board members asked staff to analyze whether the eastern portion of the East Link Extension from the South Bellevue Station to Redmond Technology Station along with OMF East could be opened without delay and how to accelerate access for Lynnwood Link to the vehicles needed from OMF East to provide planned service frequencies without creating further delays to any other extension opening.

Schedule considerations for East Link Starter Line

Through this action and an additional action later in 2023 as described below, the Board could consider opening a significant portion of the East Link Extension and the OMF East unaffected by the construction impacts along the I-90 corridor. Staff examined the feasibility of opening and operating the East Link Starter Line and determined it could be completed and ready for activation testing and pre-revenue service in late 2023 to early 2024, including service and support from OMF East.

In previous discussions, staff indicated that opening the East Link Starter Line along with the opening of the OMF East in early 2024 without the I-90 construction delays is beneficial to Lynnwood Link by ensuring these areas are fully functional and ready to provide light rail vehicles to Lynnwood Link as soon as construction completion allows vehicle access over I-90. However, this sequencing could also create a potential delay to the timing of the Lynnwood Link Extension opening, dependent on:

- 1) The length of time determined to be needed between the two openings (currently assumed to be six months);
- 2) The availability of staff resources needed to activate two extensions of this magnitude.

In addition, the Lynnwood Link Extension may be impacted by unrelated and as yet unidentified construction delays that may emerge prior to the completion of construction.

Until the full East Link alignment opens service across Lake Washington and provides access to OMF East in Bellevue, service to Lynnwood will be limited to trains operating out of the OMF Central in SODO. This results in 8-minute service frequency only. Staff have also been asked to examine options to improve service frequencies on Lynnwood Link and the 1 Line until East Link opens over I-90.

Staff will continue to address challenges and options with a goal of fully eliminating any potential delay to Lynnwood. As construction advances on both East Link and Lynnwood Link, staff will better understand the specific timelines for each project and will update the Board regularly on potential opportunities and risks.

Board actions and work needed to advance the East Link Starter Line

This action would authorize the use of up to \$6 million from the existing 2023 East Link Extension budget to complete the work needed to further develop the option to open the East Link Starter Line in 2024. This action would not increase the overall East Link project baselined budget, and the authorized amount would be paid for by the East King subarea.

The amount requested would allow staff to complete the work identified below to further develop the option to open the East Link Starter Line. This work includes:

- Analysis required to make the East Link Starter Line part of the 2024 Service Plan, including Title VI, Fare Equity, and public engagement associated with a major service change
- Train control and signal control revision to support the Starter Line
- Software revisions to support train schedule information to third-party apps
- Passenger Information Management System (PIMS) revisions
- Systems Construction Management Consultant costs to oversee additional work
- Safety and security certification
- Pre-revenue service activities including operator and staff training
- Passenger information and outreach
- Passenger and operational signage
- Potential environmental review

This action authorizes funding from existing budget within the East King subarea and does not impact any projects outside of the East King subarea.

If this action is approved, evaluation of service on the Starter Line will be included in the 2024 Service Plan that will be considered by the Board in Fall 2023 (anticipated in October), so it is coordinated with other changes in service across the system.

In Fall 2023, the Board would consider an action to authorize opening passenger service on the East Link Starter Line in Spring 2024. This Board action would coincide with the completion and approval of the analysis required for a major service change, including the completion of Title VI analysis and an

additional assessment of other opening risks and impacts including staffing needs for operations and maintenance.

If the Board authorizes Starter Line revenue service in Fall 2023, staff will immediately initiate pre-revenue service activities including implementing and installing all necessary activation, service change, and passenger experience elements so that the Starter Line can open in Spring 2024.

In addition, staff will update the Board on a quarterly basis on the status of all Link projects currently under construction. This will also include information on the potential timeframe for the Federal Way Link Extension opening and the feasibility of a phased opening. It will also include reports on potential options to improve service frequencies on Lynnwood Link Extension during the period where there will not be access to the OMF East.

Fiscal information

The proposed action authorizes additional scope for the East Link Extension project and the associated estimated cost to complete those elements. There are sufficient uncommitted funds within the East Link Extension project to complete the original scope and fund the estimated cost of the proposed additional scope. There is no additional cost to the East Link Extension baseline budget with the authorization of this additional scope and associated cost.

The cost of this action is within the baseline budget and sufficient monies remain after approval of this action to fund the remaining work in the project. This action does not impact the affordability of any other system expansion project.

Disadvantaged and small business participation

Not applicable to this action.

Public involvement

Public engagement will be performed as part of the 2024 Service Plan development process.

Time constraints

A one-month delay would create a significant impact on the ability of staff to open the East Link Starter Line by Spring 2024 and to avoid/eliminate potential activation resource conflicts within Sound Transit and with Sound Transit partners for the opening of the Lynnwood Link Extension project.

Prior Board/Committee actions

Resolution R2022-35: Adopted an annual budget for the period from January 1 through December 31, 2023 and adopts the 2023 Transit Improvement Plan (TIP).

Resolution No. R2015-04: (1) Adopted the East Link Extension baseline schedule and budget, which constitutes Board approval of Gate 5 within Sound Transit's Phase Gate process by (a) amending the project Lifetime Budget from \$798,346,894 to \$3,677,150,000, and (b) amending the project 2015 Annual Budget from \$142,944,766 to \$165,636,000; (2) approved Gate 6 within Sound Transit's Phase Gate process to allow the project to proceed to construction; (3) confirmed that the alignment selected by the Board in 2013 includes a 120th Avenue Station in a retained cut; (4) incorporated the Overlake Village Bridge project into the East Link Extension by (a) amending the Lifetime budget from \$5,185,585 to \$0 and (b) amending the annual budget from \$1,163,000 to \$0 to reflect the transfer of budget to the East Link Extension; and (5) established a project revenue service date of June 2023.

Environmental review – KH 1-20-23

Legal review – DB 1-20-23



Resolution No. R2023-06

A RESOLUTION of the Board of the Central Puget Sound Regional Transit Authority authorizing the expenditure of up to \$6 million from the East Link project budget, to be funded by the East King subarea, to complete the work necessary to further develop the option to open a portion of East Link Extension from South Bellevue Station to Redmond Technology Station (East Link Starter Line) in Spring 2024. This work will inform a final action to be considered by the Board in Fall 2023 on whether to open the East Link Starter Line for revenue service in Spring 2024.

WHEREAS, the Central Puget Sound Regional Transit Authority, commonly known as Sound Transit, was formed under chapters 81.104 and 81.112 of the Revised Code of Washington (RCW) for the Pierce, King, and Snohomish Counties region by action of their respective county councils pursuant to RCW 81.112.030; and

WHEREAS, Sound Transit is authorized to plan, construct, and permanently operate a high-capacity system of transportation infrastructure and services to meet regional public transportation needs in the Central Puget Sound region; and

WHEREAS, in general elections held within the Sound Transit district on November 5, 1996, November 4, 2008, and November 8, 2016, voters approved local funding to implement a regional high-capacity transportation system for the Central Puget Sound region; and

WHEREAS, in April 2015, the Board adopted Resolution No. R2015-04 to establish a baseline budget for the East Link Extension and a baseline schedule of June 2023; and

WHEREAS, the impacts of a number of factors including a concrete strike and COVID-19 resulted in delays to completing and opening projects in construction, including the East Link, Downtown Redmond Link, Lynnwood Link, and Federal Way Link Extensions; and

WHEREAS, the East Link Extension has experienced construction impacts including construction quality and durability concerns about plinths, the raised concrete structures that support the tracks on the I-90 segment (except for the floating bridge), and further challenges including issues with mortar pads and rebar placements and track fasteners; and

WHEREAS, a risk assessment of the East Link Extension as well as a Programmatic Quantitative Risk Assessment was conducted across all Link projects in construction to identify likely opening timelines for each project as soon and as safely as possible considering estimates of construction completion and available staff and partner resources; and

WHEREAS, the original timeframe for opening of the Light Rail Link Extensions was East Link first in 2023 and then Lynnwood Link, Downtown Redmond Link, and Federal Way Link in 2024; and

WHEREAS, the Programmatic Quantitative Risk Assessment shows the earliest dates each extension project could be opened as a complete line are Lynnwood Link Extension in Summer/Fall 2024, East Link and Downtown Redmond Link Extension in Spring 2025, and Federal Way after these openings on a date still to be determined; and

WHEREAS, in light of the schedule and service impacts to East Link and to Lynnwood, Board members asked staff to analyze whether the eastern portion of the East Link Extension from the South Bellevue Station to the Redmond Technology Station, along with the Operations and Maintenance Facility East (OMF East), could be opened without delay and how access to the vehicles from the OMF East needed to provide planned service frequencies for the Lynnwood Link Extension could be accelerated without creating further delays to any other extension opening; and

WHEREAS, as construction advances on both East Link and Lynnwood Link, staff will better understand the specific timelines for each project and will update the Board regularly on potential opportunities and risks; and

WHEREAS, staff examined the feasibility of opening and operating the East Link Starter Line and determined it could be completed and ready for activation testing and pre-revenue service in late 2023 or early 2024; and

WHEREAS, this sequencing could create a potential delay to the timing of the Lynnwood Link extension dependent on the length of time determined to be needed between the two openings (currently assumed to be six months), and the availability of staff resources needed to activate two light rail extensions of this magnitude; and

WHEREAS, staff will continue to address challenges and options with a goal of fully eliminating any potential delay to Lynnwood Link Extension; and

WHEREAS, staff will update the Board on potential opportunities and risks as construction advances on both the East Link and Lynnwood Link Extensions and specific timelines are better understood; and

WHEREAS, the 2023 East Link Extension scope and project budget did not allocate a portion of the available baseline budget to be used for the work associated with the East Link Starter Line; and

WHEREAS, Board approval is needed to authorize the use of up to \$6 million from the existing 2023 East Link Extension budget to further develop the option to open a portion of East Link Extension from South Bellevue Station to Redmond Technology Station (East Link Starter Line); and

WHEREAS, this work will inform a final action to be considered by the Board in Fall 2023 on whether to open the East Link Starter Line for revenue service in Spring 2024; and

WHEREAS, the authorized amount of \$6 million would be paid for by the East King subarea and this action does not necessitate a change to the East Link Extension budget and does not impact any projects outside of the East King subarea; and

WHEREAS, a two-thirds affirmative vote of the entire membership of the Sound Transit Board is required to amend the scope of the East Link Extension project.

NOW, THEREFORE, BE IT RESOLVED by the Board of the Central Puget Sound Regional Transit Authority that:

Section 1. The chief executive officer is authorized to expend up to \$6 million from the East Link project budget, to be funded by the East King subarea, to be spent on the work required to further develop the option to open a portion of East Link Extension from South Bellevue Station to Redmond Technology Station (East Link Starter Line) in Spring 2024, including:

- Analysis required to make the East Link Starter Line part of the 2024 Service Plan, including Title VI, Fare Equity, and public engagement associated with a major service change
- Train control and signal control revision to support the Starter Line,
- Software revisions to support train schedule information to third party apps
- Passenger Information Management System (PIMS) revisions
- Systems Construction Management Consultant costs to oversee additional work
- Safety and security certification
- Pre-revenue service activities including operator and staff training
- Passenger information and outreach
- Passenger and operational signage
- Potential environmental review

ADOPTED by a supermajority of the Board of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on January 26, 2023.



Dow Constantine
Board Chair

Attest:



Kathryn Flores
Board Administrator