Agency Progress Report Capital Programs



FFGA Signing for Federal Way Link Extension at the Angle Lake Station January 22, 2020

January | 2020



Prepared by Project Control & VE | Design, Engineering & Construction Management

Editor's Note

Sound Transit's Monthly Agency Progress Report summarizes projects and major contracts status, risk, and performance for capital projects.

Due to timing differences in the production of the APR and the ST financial statements, actual cost data presented in the APR may not match the quarterly financial statements. However, the actual cost data is reconciled to the financial statements on a monthly basis.

We always appreciate any suggestions you might have for future refinements to this document. To be added to the distribution list for this report or to make suggestions, please contact Julie Parker at (206) 398-5000.

The Agency Progress Report can also be found on the web at http://www.soundtransit.org/get-to-know-us/documents-reports/agency-progress-reports.

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Agency Progress Report

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SOUND TRANSIT CURRENT SERVICE









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Executive Summary Sound Transit Capital Program

Connect 2020

Starting the weekend of Jan. 4, following months of preparation and customer outreach, Sound Transit began construction to integrate new Eastside light rail tracks into the existing rail system.

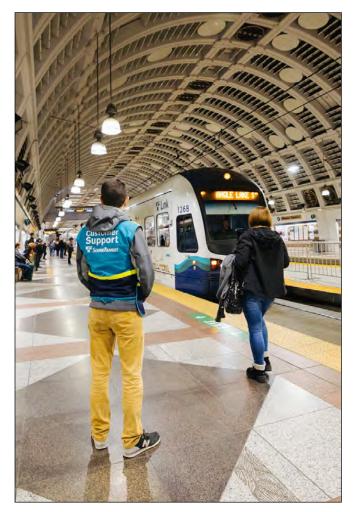
The agency labeled the 10-week construction period Connect 2020 and started single-track service through downtown Seattle, between our SODO and Capitol Hill Stations.

Single-tracking required a new transfer via a temporary center platform at Pioneer Square Station, where the southbound and northbound trains met. Passengers wishing to continue past Pioneer Square crossed a temporary platform to switch trains.

Sound Transit originally planned 12-minute train headways for all trains during Connect 2020. However, a week into the project, the agency revised that estimate and updated riders to expect trains every 13-15 minutes. Subsequently, trains met those headway times.

As planned, Sound Transit enforced bike restrictions at Pioneer Square Station to ensure safety during transfers between trains. Southbound riders were not allowed to bring bikes beyond University Street Station, and northbound riders were not allowed to bring bikes beyond SODO.

To make it easier for bike commuters to keep their bikes off the system, Sound Transit installed new on-demand BikeLink lockers at the Rainier Beach, SODO and University of Washington stations.



Pioneer Square Station Center platform for Connect 2020



Federal Way Full Funding Grant Agreement

On Jan. 22, Acting Federal Transit Administrator K. Jane Williams and South King County, Federal Way and Tacoma-area U.S. Congressman Adam Smith joined Sound Transit representatives and other local officials at our Angle Lake Station for a signing ceremony to mark the Federal Way Link Extension's \$790 million Full Funding Grant Agreement.

The award is 25% of the federal project cost. Construction begins later this year.

Renaming University Street Station

On Jan. 23, the Sound Transit Board voted to change the name of the University Street Link light rail station to Union Street/Symphony Station. The agency has scheduled the renaming for 2021 as a way to avoid rider confusion over multiple stations with university-based names. (The new U District Station opens as part of the Northgate Link Extension next year.)

The Board vote came after a public engagement process in which Sound Transit received 14,000 survey responses; "Symphony" emerged the winner. The Board approved the Union Street/Symphony Station name to maintain the "USS" acronym currently assigned to the station in our safety management systems.

Outreach Roundup

Starting Jan. 23, Sound Transit began seeking public input on the Sounder South Strategic Development and Implementation Plan through an online open house that will run through Feb. 6. The ultimate plan will guide Sound Transit's work to meet the future demand for Sounder South service.

The Sound Transit 3 measure approved in 2016 provided funding for capital improvements on Sounder South. Sound Transit is considering lengthening trains and platforms over the next decade to carry up to 40% more passengers; potentially adding weekday trips and station improvements to accommodate longer trains and more riders. In addition to investments in capacity expansion, we are also planning to extend Sounder service to Tillicum and DuPont by 2036.

On Jan. 22, Sound Transit's partner agency King County Metro launched a community engagement effort and survey to get public feedback on a new bus network proposal for creating connections to Sound Transit's three new Seattle Link light rail stations, scheduled to open in 2021 (U District, Roosevelt and Northgate).

Metro and Sound Transit are working to finalize an integrated, customer-centered transit network of more than 30 bus routes with a focus on improving access to historically underserved communities.

Progress Report Link Light Rail Program



Metal Framing Installation at the Mercer Island Station



Prepared by Project Control & VE I Design, Engineering & Construction Management

January 2020







SoundTransit

Northgate Link Extension: The University of Washington Station (UWS) to Northgate project is a 4.3-mile extension of light rail from the UWS north under campus via twin-bored tunnels to an underground station at NE 45th Street continuing to an underground station at NE 65th Street and via tunnel, retained cut and elevated sections to Northgate. Revenue Service date is September 2021. The Sound Transit Board adopted the baseline capital budget of \$2.13B originally in 2012 and revised the baseline budget to \$1.89B in October 2015.

Lynnwood Link Extension: Lynnwood Link Extension extends light rail 8.5 miles to Snohomish County along I-5 from Northgate Mall in Seattle to the Lynnwood Transit Center, with four new light rail stations. The configuration includes atgrade, elevated, and retained cut/fill alignment. The Sound Transit Board adopted the baseline capital budget of \$2.77B on May 24, 2018.

East Link Extension: East Link Extension expands light rail to East King County via I-90 from Downtown Seattle to the Overlake Transit Center area of Redmond, with stations serving Rainier Avenue/I-90, Mercer Island, South Bellevue, Downtown Bellevue, Overlake Hospital, the Bel-Red corridor, Overlake Village and the Redmond Technology Center (formerly Overlake Transit Center). Revenue service to the Redmond Technology Station is forecast for June 2023 with a tunnel route in Downtown Bellevue. The Sound Transit Board adopted the baseline capital budget of \$3.67B in April 2015.

Downtown Redmond Link Extension: This project builds a new light rail from the Redmond Technology Station to downtown Redmond by 2024. Light rail will travel along SR-520 with two new stations in southeast Redmond, at Marymoor Park, and downtown Redmond. The ST Board adopted the baseline capital budget of \$1.53B on October 25, 2018.

West Seattle and Ballard Link Extensions: The West Seattle & Ballard Link Extensions are voter-approved projects under the ST3 Plan. West Seattle segment includes 4.7 miles of light rail from downtown Seattle to West Seattle's Junction neighborhood. It includes five light rail stations. The route will run primarily on elevated guideway with a new rail-only bridge over Duwamish River. The Ballard segment includes 7.1 miles of light rail from downtown Seattle to Ballard's Market Street area. It includes nine light rail stations. The route will run through a new downtown Seattle rail-only tunnel, elevated guideway, and a rail-only bridge over Salmon Bay. The current budget for these projects through completion of Preliminary Engineering is \$286M.

Federal Way Link Extension: The Federal Way Link Extension adds approximately 7.8 miles of light rail from the Angle Lake Station in the City of SeaTac to the Federal Way City Center. The extension generally parallels SR 99 and 1-5 freeway with stations at Kent/Des Moines, South 272nd Star Lake park-and-ride and the Federal Way Transit Center. The Sound Transit Board adopted the baseline capital budget of \$2.45B on September 27, 2018.

Hilltop Tacoma Link Extension: The Hilltop Tacoma Link Extension is a 2.4 mile extension of the existing Tacoma Link system from the Theater District in downtown Tacoma to the Hilltop neighborhood. The extension will travel at-grade along Stadium Way, North 1st Street, Division Avenue, and Martin Luther King Jr. Way. The Sound Transit Board adopted the baseline capital budget of \$217.3M in September 2017.

Tacoma Dome Link Extension: This project will extend light rail from the Federal Way Transit Center in the City of Federal Way to the Tacoma Dome area in the City of Tacoma a total distance of approximately 9.7 miles, generally along or near I-5 with three elevated stations at South Federal Way, Fife, and East Tacoma, and one at-grade/retained station at the Tacoma Dome. The budget for this project through completion of Preliminary Engineering in June 2019 is \$125.7M.

Link Operations and Maintenance Facility East: This project located in the City of Bellevue, includes a 160,000 square foot operations and maintenance facility that will maintain, store and deploy and expand light rail fleet, including seven LRV service bays, a LRV wash facility and storage for up to 96 light rail vehicles. The ST Board adopted the baseline capital budget of \$449.2M in July 2016.

Light Rail Vehicle (LRV) Fleet Expansion: This project includes the design, manufacturing, inspection, testing and delivery of 152 low floor LRVs for service requirements of Northgate, East Link and Lynnwood Link Extensions. The Sound Transit Board adopted the baseline capital budget of \$733M originally in 2015 and revised the baseline budget to \$740.7M in April 2017 to allow for the procurement of 30 additional vehicles.



Program Budget

Project figures for active projects are represented in millions below.

Project	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Forecast to Com- plete	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Northgate Link Extension	\$1,899.8	\$1,684.6	\$1,583.0	\$163.9	\$1,848.4	\$51.3
Lynnwood Link Extension	\$2,771.6	\$2,207.0	\$602.9	\$564.6	\$2,771.6	0
East Link Extension	\$3,677.2	\$3,087.4	\$2,325.2	\$589.7	\$3,677.2	(\$0.0)
Downtown Redmond Link Ext.	\$1,530.0	\$863.4	\$117.9	\$661.7	\$1,525.1	\$4.9
West Seattle and Ballard Link Ext.	\$285.9	\$97.1	\$56.2	\$188.8	\$285.9	0
Federal Way Link Extension	\$2,451.5	\$1,516.4	\$350.6	\$935.1	\$2,451.5	0
Hilltop Tacoma Link Extension	\$217.3	\$192.9	\$106.7	\$24.5	\$217.3	0
Tacoma Dome Link Extension	\$125.7	\$55.5	\$22.3	\$70.1	\$125.7	0
Link O & M Facility: East	\$449.2	\$361.7	\$290.9	\$87.5	\$449.2	0
LRV Fleet Expansion	\$740.7	\$668.5	\$175.5	\$72.3	\$740.7	0
Total Link	\$14,148.9	\$10,734.4	\$5,631.1	\$3,358.3	\$14,092.7	\$56.2

Program Schedule

Schedules for active projects are summarized below.

Activity Name	Start	Finish	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034 20
			adda	qqqq	dddd	qqqq	qqqq	qqqq	aaac	adda	addaa	adaa	qqqq	qqqq	qqqq	qqqq	qqqq	adda	qqqq	qqqqq
Northgate Link Extension (BASELINED)																				
Final Design	04-Oct-10 A	19-May-17 A																		
Civil/Systems Construction (incl Procurements)	10-May-12 A	15-Oct-20																		
Systemwide Startup/Testing/Float	21-May-19	24-Sep-21			-															
Revenue Service Date		24-Sep-21					*													
Lynnwood Link Extension (BASELINED)																				
Alternatives Analysis/EIS Scoping	25-Apr-10 A	31-Dec-11 A																		
NEPA/SEPA/Draft EIS	02-Jan-12 A	27-Dec-13 A																		
Preliminary Engineering/Final EIS/ROD	02-Jan-14 A	30-Jun-15 A																		
Final Design (incl Procurement)	02-Jan-15 A	27-Mar-20		5		.														
Civil/Systems Construction	02-Feb-19 A	17-Sep-23		4																
Systemwide Startup/Testing/Float	18-Sep-23	17-Jul-24							-	-										
Revenue Service Date		17-Jul-24								••										
East Link Extension (BASELINED)																				
Final Design (incl Procurement)	16-Sep-11 A	31-Jan-18 A		•																
Civil/Systems Construction (incl GCCM Procure)	03-Jun-14 A	31-Dec-21	_				Ē													
Systemwide Startup/Testing/Float	01-Jan-22	30-Jun-23					4													
Revenue Service Date		30-Jun-23							**											
Downtown Redmond Link Extension (BASELIN	IED)																			
Preliminary Engineering	03-Jan-17 A	30-Jul-18 A																		
Design-Build Procurement	25-May-18 A	24-Aug-19		-																
Civl/Systems Construction	25-Aug-19	24-Nov-23			6															
Systemwide Startup/Testing/Float	25-Nov-23	19-Nov-24							╘╾[4									
Revenue Service Date		19-Nov-24								•	۳									



Program Schedule

Schedules for active projects are summarized below.

Activity Name	Start	Finish	2017		2019	2020	2021	2022	2023	2024	2023	2026		2020	2029		2031	2032	2033	2034	2035
West Seattle/Ballard Extension						1	1														
Alternatives Analysis/Conceptual Engineering	17-Mar-17 A	17-Dec-20																			
Preliminary Engineering	18-Dec-20	25-May-22				ہا															
Final Design (WS)	16-Jun-21	31-Dec-24					-		-	-											
Civil/Systems Construction (WS)	01-Jan-25	30-Sep-29								4	-	-				-					
Systemwide Startup/Testing/Float (WS)	01-Oct-29	31-Dec-30													-		-				
Revenue Service Date (WS)	et Met Ott	31-Dec-30							_							-	-				
Final Design (Ballard)	16-Jun-21	25-Apr-26					-	-	T	-	-		_		_				_		
Civil/Systems Construction (Ballard)	01-Jul-25	30-Sep-33									-	-									
Systemwide Startup/Testing/Float (Ballard)	01-Oct-33	31-Dec-35																		-	
Revenue Service Date (Ballard)		31-Dec-35																-			
Federal Way Link Extension (BASELINED)																					
Phase 1/2 - Alternatives Analysis/DEIS/CE	30-Jun-12 A	31-Dec-14 A																			
Phase 3 - FEIS and PE		03-Dec-18 A																			
Design-Build Procurement	12-Apr-18 A			-																	
Civil/Systems Construction	02-Aug-19	05-Feb-24		1.5			-		-	_											
Systemwide Startup/Testing/Float	06-Feb-24	31-Dec-24								+											
Revenue Service Date		31-Dec-24		-		1 · · · ·				1 = 1	*										
Tacoma Link Extension (BASELINED)						1															Г
Preliminary Alternatives Analysis/Scoping/AA	25-Apr-10 A	13-Nov-13 A		-															- 1		
EA/Preliminary Engineering	01-Apr-14 A	04-Nov-16 A	1																		
Final Design (incl Procurement)	04-Jan-16 A	22-Jan-18 A		-																	
Civil/Systems Construction (incl Procurement)	23-Jan-18 A	15-Jan-21				Г		1	+												
Systemwide Startup/Testing/Float	16-Jan-21	23-May-22				5	•							1.00	1.1				-		
Revenue Service Date		23-May-22	1					*	11.000	1					1.1.1.1				_		
Tacoma Dome Link Extension			171		-			1					-								
Phase 1/2 - Alts Analysis/Conceptual Engr	15-Oct-12A	25-Feb-21		-			3	-							1.11						
Phase 3 - Preliminary Engineering	26-Feb-21	23-Jun-22				4	-														
Final Design	24-Jun-22	29-Nov-24					-	-	-	-											
Civil/Systems Construction	30-Nov-24	29-Sep-29								-	-	+		-		-					
Systemwide Startup/Testing/Float	30-Sep-29	31-Dec-30									_				-						
Revenue Service Date		31-Dec-30						10.00							1		4	10.00			
Link OMF-East (BASELINED)			1.11	1			1												- 1	1	
NEPA/SEPA/Preliminary Engineering	02-Jan-14 A	17-Jun-16 A																			
Design-Build Procurement		18-Jun-17 A																			
Civil/Systems Construction	11-Jan-18 A		-	-	-		1														
Project Float	27-Sep-20	25-Dec-20		100			2														
Project Completion Date		25-Dec-20					-J			1							-	-	-	÷ ! !	
Light Rail Vehicles (BASELINED)																	-				
Vendor Procurement	24-Feb-15 A	11-Oct-16A						-													
LRV Design, Build, Deliver (thru 122nd LRV)	12-Oct-16 A																				
LRV Final Acceptance (thru 122nd LRV)	23-Aug-22	24-Feb-23						-													
LRV Manufacturing, Delivery (30 LRV Options)	25-Feb-23	22-Feb-24							-												
LRV Final Acceptance (30 LRV Options)	23-Feb-24	22-Aug-24								4											
LRV Final Acceptance (30 LRV OptionS)	23-Feb-24	22-Aug-24	1.1															-		= 11	_

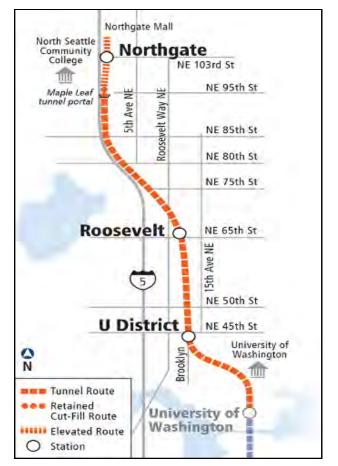


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Project Summary

Scope

Limits	The Northgate Link Extension consists of 4.3 miles of light rail extending from the University of Washington to Northgate.
Alignment	The extension begins at UW Station, contin- ues under UW campus, then north to a portal at NE 94th Street, then transitioning to an aerial structure north to Northgate Mall.
Stations	U District Station (UDS)
	Roosevelt Station (RVS)
	Northgate Station and Parking Garage
Systems	Signals, track electrification, and SCADA communications
Phase	Construction
Budget	\$1.899 Billion
Schedule	Revenue Service: September 2021



Map of Project Alignment

Key Project Activities

- U District Station/UW Campus (N140): Crews commenced installation of ceiling supports at the south head house and continued connection of wiring for escalators 1-8 control cabinets. Crews also continued installation of elevator 1 at the south end.
- Roosevelt Station (N150): Crews continued level 1 & 2 commissioning testing of electrical and mechanical equipment. While completing substantial completion punch list items, crews continue installation of irrigation at north entrance planters. The electrical contractor continues testing electrical components of door hardware and overhead doors.
- Northgate Station (N160): Station: On the Guideway/Superstructure Elcon is working on systems trough/duct crossings. At the main station, Elcon is finalizing work in the main S. Ancillary electrical room; Seattle City Light is expected to energize on Friday January 24th.
- Trackwork (N180): Northbound and Southbound track is complete throughout work areas across the Northgate alignment.
- Environmental: Environmental and safety site walks conducted on all Northgate contracts.





Closely Monitored Issues

N830 Northgate Systems Construction: With L&I's acceptance of escalators 1 - 8 at the Roosevelt Station, crews were required to address the low lighting issue within 90 days. Design provided two options to review; ST will determine how to proceed.

Project Cost Summary

The project cost is summarized in two cost categories. The first table summarizes cost in accordance with Sound Transit's budget Work Breakdown Structure (WBS). The second table summarizes the project in accordance with the FTA's Standard Cost Category (SCC) format. The figures in both tables are shown in millions.

The Estimated Final Cost (EFC) for the project as of this reporting period is \$1,847.3 M, which is \$52.5 M below the current project budget, unchanged since last period. This period approximately \$14.4 M was incurred, primarily on the major construction and construction support contracts.

Cost Summary by Phase

Project Phase	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$144.9	\$130.4	\$81.2	\$80.7	\$125.4	\$4.9
Preliminary Engineering	\$15.1	\$15.1	\$15.1	\$15.1	\$15.1	\$0.0
Final Design	\$132.2	\$137.2	\$124.6	\$120.6	\$132.0	\$5.2
Construction Services	\$118.3	\$118.3	\$103.1	\$91.2	\$111.8	\$6.6
3rd Party Agreements	\$11.8	\$11.8	\$8.4	\$7.4	\$11.4	\$0.4
Construction	\$1,343.0	\$1,352.5	\$1,250.9	\$1,166.7	\$1,340.8	\$11.7
ROW	\$112.3	\$112.3	\$101.3	\$101.3	\$110.9	\$1.4
Project Contingency	\$22.2	\$22.2	\$0.0	\$0.0	\$0.0	\$22.2
Total	\$1,899.8	\$1,899.8	\$1,684.6	\$1,583.0	\$1,847.3	\$52.5

Cost Summary by SCC

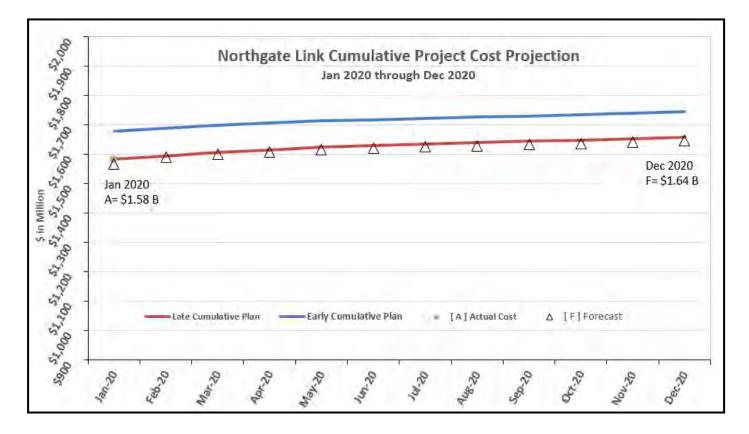
SCC Element	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$595.6	\$548.2	\$517.8	\$509.2	\$531.7	\$16.5
20 Stations	\$376.1	\$425.1	\$436.0	\$415.4	\$455.5	-\$30.5
30 Support Facilities: Yard, Shop	\$5.3	\$6.1	\$6.5	\$6.5	\$6.5	-\$0.3
40 Sitework & Special Conditions	\$140.8	\$230.7	\$170.4	\$163.6	\$194.0	\$36.8
50 Systems	\$110.9	\$98.5	\$107.7	\$60.8	\$117.1	-\$18.6
Construction Subtotal (10 - 50)	\$1,228.7	\$1,308.6	\$1,238.4	\$1,155.5	\$1,304.8	\$3.8
60 Row, Land, Existing Improvements	\$119.9	\$110.9	\$101.3	\$101.3	\$105.5	\$5.4
80 Professional Services	\$420.7	\$431.6	\$344.8	\$326.1	\$424.3	\$7.3
90 Contingency	\$130.4	\$48.7	\$0.0	\$0.0	\$12.7	\$36.0
Total (10 - 90)	\$1,899.8	\$1,899.8	\$1,684.6	\$1,583.0	\$1,847.3	\$52.5



Project Cash Flow Projection

The Northgate Link cost aligns with the planned expenditures as construction activities continue.

Total project cost to date reached \$1.58 B of which about \$1.16 B (73%) is attributed to construction. The project cost is forecast to reach \$1.64 B by December 2020, reflecting continued active construction activities.



Risk Management

The Risk and Contingency Management Plan (RCMP) establishes a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It provides a tool for the project team to proactively manage risks on the project. It is Sound Transit's responsibility to continuously monitor project status and associated risks. The top project-wide risks are:

- Lack of new Light Rail Vehicles (LRV) availability: 40 new LRVs are required for Northgate Link to enter into Revenue Service. They are being procured through a separate project outside of the Northgate Link Extension. Currently, the LRV manufacturer, Siemens, is behind schedule with their early car production and delivery. Continued delays will lead to a scenario where not enough LRVs will be tested and ready for Northgate Link Revenue Service.
- Electromagnetic Interference (EMI) and/or Noise & Vibration impacts do not meet UW thresholds causing delays in opening for service.
- Insufficient operations and maintenance staff to support testing and commissioning activities (no impacts to date).
- Potential for additional restoration requests by City of Seattle (CoS) for sewer, water, repaying, power, or other area improvements. Risk is delays in final contract close-out and additional construction costs.



Contingency Management

The Northgate Link project budget was baselined in 2012 with a total contingency of \$396.2M.

Design Allowance (DA) was established to account for unquantified scope at the time of the cost estimate. DA has been fully depleted and all major contracts have been awarded.

Allocated Contingency (AC) is used to address risks, complexity and unforeseen conditions during the execution of work, including procurement.

Unallocated Contingency (UAC) is used to address general project-wide cost risks and uncertainties.

In this period, a change was made to how \$22.2 M in project contingency is counted. Previously counted as AC, it is now counted as UAC. In addition, \$18.0 M in AC was transferred to UAC as part of the 2020 budget update.

AC decreased by \$0.8 M, due to change orders on construction contracts. The overall contingency balance remains well above both the minimum and the buffer zone contingency levels.

Contingency Status (Monthly)

	Bas	eline	Currren	t Status
Туре	Amount	% of Total Budget	Remaining Amount	% of Work Remaining
Design Allowance	\$113.9	6.0%	\$0.0	0.0%
Allocated Contingency	\$184.0	9.7%	\$85.8	32.5%
Unallocated Contingency	\$98.3	5.2%	\$61.4	23.2%
Total:	\$396.2	20.9%	\$147.2	55.7%

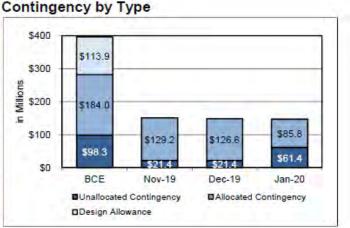
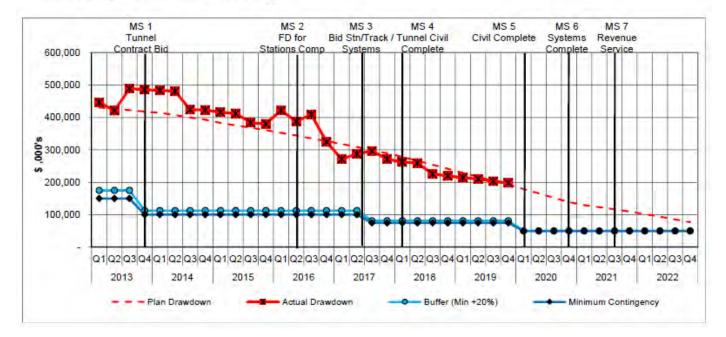


Table figures are shown in millions.

Contingency Drawdown (Quarterly)





Project Schedule

In January 2020, the physical percent complete for all Northgate Link construction contracts increased from 92.7% to 93.1%.

Completion of the civil construction remains in late 3rd QTR 2020. The systems schedule continued to experience some slippage with the forecast completion remaining in January 2021. ST is working with the contractors to mitigate the slippage.

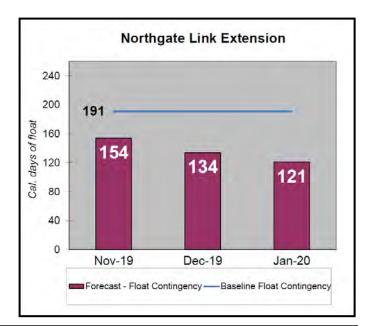
The Revenue Service Date remains late September 2021.

wby Name	Start	Finish	Q Q Q 3 Q	2015	2017	2018	2019 Q Q2 Q Q	2020	2021
Northgate Link Extension Master Schedule - V12c	24-Dec-10A	05-Nov-21							
Final Design	24-Dec-10 A	04-Nov-16 A		•					
Construction	01-Aug-12A	22-Apr-21	-	-					-
N105 Advanced Demolition & Site Prep - DBB	04-Aug-14.A	28-Nov-16 A	-	-	1				
N110 Construction Advanced Utility Relocation - DBB	D6-Mar-13 A	28-May-13 A			1.1	1	1.1		
N111 Advance Utility Relocation, Northgate Area - DBB	17-Feb-14 A	22-Jun-16 A	-			1.1.1	111		1.2.1
N112 Advanced Demolition & Site Prep, U District & Roosevelt - DBB	01-Aug-12A	31-Aug-13 A	-	1.01		1.77			
N113 115kV Relocation at Northgate - DBB	31-May-16 A	21-Feb-17 A			-	1.			
N125 TBM Tunnels (UW Station to Maple Leaf Portal) - DBB	30-Sep-13 A	26-Feb-18 A							-
N140 U District Station Finishes - GC/CM	07-Apr-17 A	13-Mar-20			-			-	
N150 Roosevelt Station Finishes - GC/CM	02-Dec-16A	24-Oct-19 A				1	~		
N160 Northgate Station and Elevated Guideway - DBB	02-Sep-16A	05-May-20	11 m	-			-	-	ha
N180 Trackwork - DBB	25-Aug-16 A	31-Oct-19 A		¢			-	11.	1
N830 Traction Electrification, Signal & Communications - GC/CM	12-Jun-17 A	10-Dec-20		1					
Vibration & EMI Testing	04-Aug-17 A	22-Apr-21		1	-	1			-
Testing & Startup	20-Feb-18 A	05-Nov-21		1	-	.			-
Lvl 1 - 2 Testing - Civil Contracts	20-Feb-18 A	16-Apr-20				-		-	
Lvl 1 - 3 Testing - Systems Contract	13-Feb-19 A	05-Nov-21					-		
NLE Rail Activation	15-Dec-20	26-Sep-21		1	10.1	1			
Pre-Revenue Service	15-Dec-20	02-May-21							~
Northgale Link Level 4 Pre-Revenue Service	15-Dec-20	02-May-21	1						12.23
Revenue Service	28-May-21	26-Sep-21							
Revenue Service - Roat	28-May-21	26-Sep-21	11 m						
Northgate Link Extension - Revenue Service		26-Sep-21							•

Project Float

Project float for the Northgate Extension decreased from 134 days to 121 days. Slippage in the N830 Systems project schedule, continued to push the completion work.

Additionally, durations for the Vibration testing to be conducted under the N835 contract were increased based on information provided by the ST Engineers during the latest Risk Assessment. ST will be re-evaluating the both the Vibration testing and EMI testing schedules in the next month to seek improvement in the schedule for the testing.





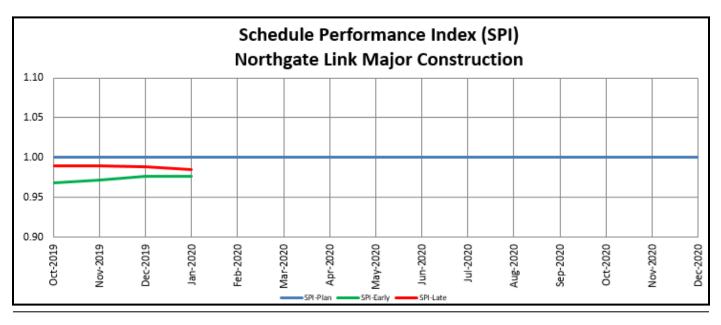
Critical Path Analysis

The critical path for Northgate Link continues to run primarily through the N830 Systems contract. The key driver is the Signals installations. Near critical issues include the Northgate Station electrical work, as well as completion of the additional stairs and deferred work at U District Station.

Activity ID	Activity Name	Start	Finish	TF		2020				20	21	
					JF	MAM	JJAS	OND	JFM	A M J	JAS	O N D
Northgate Lin	k Extension Master Schedule - V1	24-Dec-10 A	05-Nov-21	-30								
Project Wide		24-Dec-10 A	24-Dec-10 A									
Final Design		21-Jul-11 A	18-Mar-16 A									
Environment	al/Permitting	16-Apr-13 A	03-Aug-16 A									
Construction		01-Jun-12 A	20-May-21	-30	-	-						
Testing & Sta	artup	13-Feb-19 A	05-Nov-21	-30								
Lvl 1 - 3 Testing	g - Systems Contract	13-Feb-19 A	05-Nov-21	-30								
N830/E750 - S	ystems	01-Sep-19 A	20-Oct-20	-30								
N830 Project		01-Sep-19 A	20-Oct-20	-30								
N830 Engineer	ing	02-Mar-20	05-Mar-20	-29	1							
N830 Construc	tion	01-Sep-19 A	20-Oct-20	-30								
N830 Milestone	es	01-Sep-19 A	20-Oct-20	-42								
N830 OCS		15-Aug-20	16-Aug-20	-18			1					
N830 Signals		04-Nov-19 A	14-Jul-20	6								
N830 Testing a	nd Commissioning	04-Jun-20	20-Oct-20	-30	_							
NLE Rail Activ	vation	21-May-21	26-Sep-21	-42								
Revenue Sen	vice	21-May-21	26-Sep-21	-42								
RACT1133	Readiness Review Meeting #3 - Prior to Revenue Service	21-May-21	27-May-21	-42						∎ R	eadiness R	eview Meet
RACT1350	Opening Day-Forecast	28-May-21	28-May-21	-42						10	pening Day	r-Forecast
RACT1310	Revenue Service - Float	28-May-21	26-Sep-21	-42								Revenue
RACT1320	Northgate Link Extension - Revenue Service		26-Sep-21	-42	-						•	Northgate

Schedule Performance Index

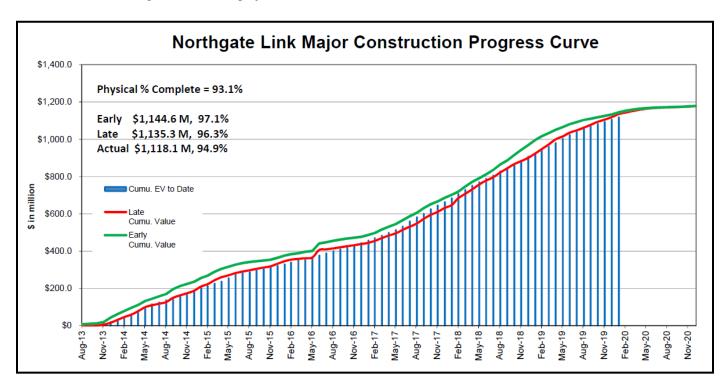
The early Schedule Performance Index (SPI) for the project is at 0.98 for this period, and the late SPI is also at 0.98, showing that in general, performance continues to be satisfactory.





Cost Progress Analysis

Overall Northgate Link major construction percent complete analysis is based on a weighted measurement among the six major construction contracts' schedules, durations and costs. The graph below shows the aggregate cost progression for these construction contracts is trending toward the late projection as drawn from the master schedule.



Community Outreach

Northgate Station

- Partnered with Seattle Department of Transportation (SDOT) for the Northgate Pedestrian Bridge drop-in sessions on January 8 at Thornton Place and January 9 at Olympic View Elementary School
- Co-presented at the North Seattle College Briefing.

U District Station

- Attended the monthly Floor Coordinator meeting with UW Tower
- Placed banners on fences and met with business around UDS for the closing of the Pedestrian Pathway around the UDS site.
- Assisted the contractor with removal of equipment off the roof tops of U Manor and Neptune Theater
- Coordinated work with Transit Oriented Development (TOD) developers at both Roosevelt and U District Stations.



Staffing Summary

The planned Full-Time Equivalent (FTE) is an annual projection of ST project staff and consultants. Planned FTE are an annual projection and remains constant from month to month. The Year-to-Date (YTD) Performance is the total actual FTEs accumulated through this reporting period. Staffing status is summarized in the following table.

The planned FTE monthly average takes peaks and valleys in activity into account; whereas the YTD monthly average only reflects January actuals. As civil construction activity concludes over the course of the year, the monthly average will trend closer to the plan.

Resource Type	Planned FTE Monthly Average	YTD Actual FTE Monthly Average	Variance
ST Staff	42	29	(13)
Consultants	29	58	29
TOTAL	71	87	16

* An FTE is the equivalent of 2080 hours. YTD performance FTE hours are divided by a monthly factor of 173.33.

Sound Transit Board Actions

Board Action	Description	Date
M2020-01	Authorizes the CEO to increase certain contract contingencies as necessary using con- tingency funds available within the baseline budget, for a total authorized cumulative contingency increase not to exceed \$18,000,000 or 5% of the current authorized con- tract amount for any individual contract.	1/23/2020



Construction Safety

Data/ Measure	January 2020	Year to Date	Project to Date				
Recordable Injury/Illness Cases	0	0	113				
Days Away From Work Cases	0	0	6				
Total Days Away From Work	0	0	397				
First Aid Cases	2	2	187				
Reported Near Mishaps	1	1	148				
Average Number of Employees on Worksite	332	332	-				
Total # of Hours (GC & Subs)	61,210	61,210	5,139,334				
OSHA Incident Rates	Monthly Average	Year to Date	Project to Date				
Recordable Injury Rate	0.00	0.00	4.40				
Lost Time Injury (LTI) Rate	0.00	0.00	0.23				
Recordable National Average	3.00						
LTI National Average	1.20						
Recordable WA State Average	6.00						
LTI WA State Average	1.90						

Note: Due to the timing of contractor's reporting periods, the current month's numbers above are a combination of actuals and estimates. All previous months' numbers are reconciled and replaced with actuals.



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Major Construction Contract Packages

Below are the major construction contract packages for the project with a brief scope description of each.

N105 Advance Demolition and Site Prep - Demolition of Key Bank Building, removal of underground storage tanks and remediation of contaminated soil at UDS. Demolition site and site prep at strip mall near the NG Station. (Complete)

N111 Advanced Utility Relocation at Northgate Area - Relocation of 26kV and communication lines at the Northgate Station vicinity. (Complete)

N113 115kV Relocation at Northgate Station Area - Relocation of overhead electrical facilities at the Northgate Station area. (Complete)

N125 TBM Tunnels UW Station to Maple Leaf Portal - Tunneling work and support of excavation of station boxes for the U District and Roosevelt stations. (Complete)

N140 U District Station Finishes - Civil and architectural finishes work for the U District Station.

N150 Roosevelt Station Finishes- Civil and architectural finishes work for the Roosevelt Station (Substantially Complete)

N160 Northgate Station & Elevated Guideway & Parking Garage- Civil and architectural finishes work for the Maple Leaf Portal, the aerial guideway, and the Northgate Station and Tail Track. Construction of a 450 stall parking garage to be located at the south corner of the existing Northgate Mall surface parking lot at NE 103rd St. near 1st Avenue NE.

N180 Trackwork - Installation of all trackwork through two tunnels and three stations between UW Station and Northgate Station, including tail track. (Substantially Complete)

N830 Track Electrification, Signals, Communication System - Installation of the major system elements – Traction Electrification, 26kV Distribution, Signals, and Communications.



N160 – Western Tile Mezzanine Stair 3 Setting Grout



Contract N140—U District Station Finishes

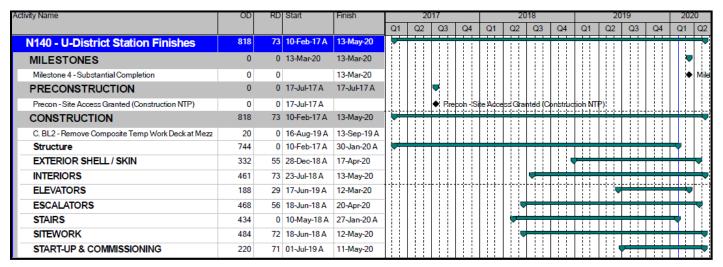
Current Progress

The N140 Contractor, Hoffman Construction, is continuing work on site as follows:

- Continued installation of handrails on added stair 8.
- Continued installation of elevator 1 at the south end.
- Commenced trenching for power conduits to light pole bases on Brooklyn Ave.
- Continued installation of lighting fixtures throughout the station.
- Continued installation of wiring for escalators 1-8.

Schedule Summary

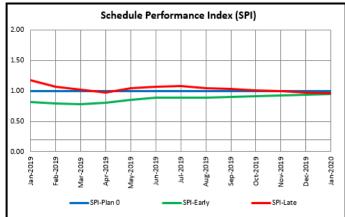
The January schedule now forecasts a seven day delay to substantial completion with the schedule progressing from 90% complete to 91%. Vertical Conveyance and Commissioning remain critical for achievement of Milestone 4, Substantial Completion. Milestone 4A, Stair 8, is still on schedule for March completion. Milestone 4B, Deferred Work remains thirteen days behind schedule, driven by restoration work on NE 43rd St. and on Brooklyn Ave. Delays to these contract milestones do not impact the Revenue Service Date.



Schedule Performance Index

This period, the SPI early is at 0.95 (slightly up from last month) and the SPI late is 0.96 (slightly down from last month).

The early index is reflective of the of the forecast late achievement of MS-4A and MS-4B. The late index indicates that the remaining work is being performed close to or on the forecast late dates. As the project nears completion, the range of float separating early and late will continue to lessen, such that the difference between performing close to the early SPI and performing close to the late SPI will be small.





Next Period's Activities

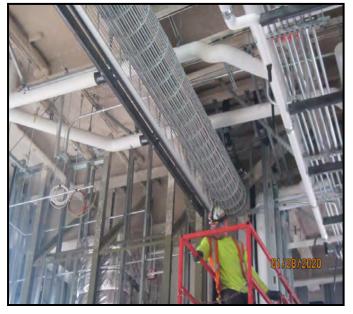
- Continue installation of overhead coiling grille doors.
- Continue installation of tile on platform level.
- Commence subgrade prep on north Brooklyn Ave and remove spoils.
- Continue installation of light pole bases.
- Continue installing conduit, junction boxes and pulling wiring to various locations.
- Complete Formed Metal Enclosure installation on platform level.

Closely Monitored Issues

• CNWD 044A – Lid Level Stem Walls & 0053 N Plenum Insulation & Doors – The Contractor's subcontractor (Walsh) has indicated that they will not accept Sound Transit's (ST) offer to settle the issue. The next step is to go to CCB with the final cost. Following CCB approval, a bilateral change with be issued to the Contractor. If the change order is rejected, ST will proceed with a unilateral change order.

Cost Summary

Present Financial Status	Amount						
N140 Contractor—Hoffman Construction							
Original Contract Value	\$	159,836,688					
Change Order Value	\$	6,133,144					
Current Contract Value	\$	165,969,832					
Total Actual Cost (Incurred to Date)	\$	151,469,431					
Percent Complete		92.4%					
Authorized Contingency	\$	15,491,834					
Contingency Drawdown	\$	6,133,144					
Contingency Index		2.3					



Overhead Coiling Grille Door Installation—S. Headhouse



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Contract N150 – Roosevelt Station Finishes

Current Progress

Hoffman Construction focused on punchlist activities. Additional activities were as follows:

- Continued Level 1 & 2 commissioning testing of electrical and mechanical equipment.
- Continued working on completing change notice work.

Next Period's Activities

• Continue completing change notice work and punchlist items.

Closely Monitored Issues

- Lighting at Escalators 1-4: L&I provided acceptance of Escalators 1-8 with a requirement to address low lighting issues within 90 days. Design is working towards completing CNWD 176 for the escalators.
- Lighting at Escalators 5-8: Contractor confirmed lighting levels do not meet code. The issue was documented via RFI 1331 and is under review by Design.
- Switchgear Issue: CNWD 137 Revision 1 was issued to order materials and prepare shop drawings. CNWD Revision 2 to perform the work is pending CCB approval in early March.

Cost Summary

Present Financial Status	Amount						
	Amount						
N150 Contractor - Hoffman Construction							
Original Contract Value	\$ 152,291,184						
Change Order Value	\$ 11,859,335						
Current Contract Value	\$ 164,150,519						
Total Actual Cost (Incurred to Date)	\$ 160,767,903						
Percent Complete	99.4%						
Authorized Contingency	\$ 14,614,559						
Contingency Drawdown	\$ 11,859,335						
Contingency Index	1.2						



North Entry—Looking South



Contract N160 – Northgate Station, Elevated Guideway, and Parking Garage

Current Progress

The N160 prime contractor, Absher Construction, and its various subcontractors are continuing work in all areas of the project. Accomplishments through the end of January include:

- Continued electrical work including systems trough/conduit extensions, pulling wires for BMS and fire devices, platform lighting conduits, fixture brackets, and speaker conduits, and access control wiring in the S. Ancillary, N. Ancillary, and KCM Building.
- Continued with Mezzanine Level tile, setting Stair 3 precast treads, and installing vapor barrier and wire mesh for the mortar bed leading into the N. Ancillary building.

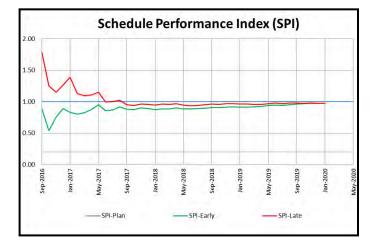
Schedule Summary

The project schedule for January continues to slip the Substantial Completion date from April 22, 2020 to May 5, 2020, an additional 13 days. The critical path continues to be driven by electrical work within the station. Sound Transit and Absher continue working closely with the Elcon, the electrical subcontractor, on strategies to improve the performance and avoid impacts to the Systems contractor.

Activity Name	OD	RD	Start	Finish 201		2017			2018			2019				2020			
) 3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1 ¹²
N160 - Northgate Station Finishes	959	87	01-Sep-16 A	03-Jun-20	Y										11	11		11	
1.00 - General Requirements	929	0	01-Sep-16 A	05-May-20	Ý														
1.10 - Project Start-up	0	0	01-Sep-16 A	01-Sep-16 A	Þ														
Constract Award/NTP (See Site Access Dates)	0	0	01-Sep-16 A		٠	Cons	tact A	ward/l	nt (s	iee Site	Acces	s Date	s)						
1.20 - Contractual Milestones	0	0	05-May-20	05-May-20															
Absher Contract Milestones	0	0	05-May-20	05-May-20							111								
MS08 - Substantial Completion [Site Access+1201d; 10	0	0		05-May-20															
2.00 - Procurement	791	12	02-Sep-16 A	18-Feb-20	Ý														-
3.00 - Preparatory Work	861	67	16-Sep-16 A	05-May-20												::	: :		
4.00 - Earthwork & Utilities	874	5	04-Jan-17 A	07-Feb-20			┢┼┼												-
5.00 - Guideway (inc. Station Unit)	801	14	03-Jan-17 A	20-Feb-20	1Ť						1- i- i-	+-i-i-				·-i-i-	;;		-
6.00 - Station Finishes	616	35	27-Mar-18 A	20-Mar-20								H					::	1 1	
7.00 - Garage	658	2	27-Jun-17 A	04-Feb-20					┢┿╡									++-	-
8.00 - At-Grade Restoration	649	54	22-Sep-17 A	16-Apr-20	11													::	
9.00 - Transition to Operations	5	0	14-Jan-19 A	22-Jan-19 A															
10.00 - Project Close-out	71	71	25-Feb-20	03-Jun-20	††:		111	-+-+-+-				<u></u> 							

Schedule Performance Index

This period, the SPI early is 0.97(unchanged from 0.97 last period) and the SPI late is at 0.97 (down from 0.98 last period), indicating no major change in performance since last month. However, the indices indicate that the contractor continues performing slightly behind plan when compared to the baseline schedule. Overall work progress has remained within 0.07 of its current trend over the last year.





Next Period's Activities

- Continue Surface level lighting, fire alarm, and BMS conduits, wiring, and devices.
- Continue installation of Elevator 3.
- Continue installation of ceiling grid and ceiling panels.
- Continue placing concrete pavement, curb and sidewalks.

Closely Monitored Issues

• Seattle City Light (SCL) installation of helical anchors at the Maple Leaf Portal (MLP) South Wall is now impacting work completion. SCL has the ball-in-court action yet no firm date has been communicated.

Cost Summary

Present Financial Status	Amount						
N160 Contractor - Absher Construction							
Original Contract Value	\$ 174,000,000						
Change Order Value	\$ 10,768,867						
Current Contract Value	\$ 184,768,867						
Total Actual Cost (Incurred to Date)	\$ 174,146,433						
Percent Complete	92.1%						
Authorized Contingency	\$ 17,400,000						
Contingency Drawdown	\$ 10,768,867						
Contingency Index	1.5						



Setting up scaffolding at Stair 1 for closet framing



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Contract N180 – Trackwork UWS to Northgate Station

Current Progress

The N180 Contractor, Stacy and Witbeck, Inc. (SWI) achieved Substantial Completion of all Milestones on Oct. 31, 2019.

Remaining work are the punch list items for all work areas and documentation prior to closeout, which is being carried out and ongoing.

Next Period's Activities

• Punchlist activities and final walk related to all work areas ongoing.

Closely Monitored Issues

• Communication and coordination between contracts is ongoing, monitoring related activities to bring the contract to a successful close out.

Cost Summary

Present Financial Status	Amount						
N180 Contractor - Stacy and Witbeck, Inc.							
Original Contract Value	\$	71,455,950					
Change Order Value	\$	4,432,069					
Current Contract Value	\$	75,888,019					
Total Actual Cost (Incurred to Date)	\$	74,876,292					
Percent Complete		100%					
Authorized Contingency	\$	10,718,393					
Contingency Drawdown	\$	4,432,069					
Contingency Index	\$	2.4					



Punchlist work on elevated guideway.



Contract N830 – Northgate Link Systems, Heavy Civil GC/CM

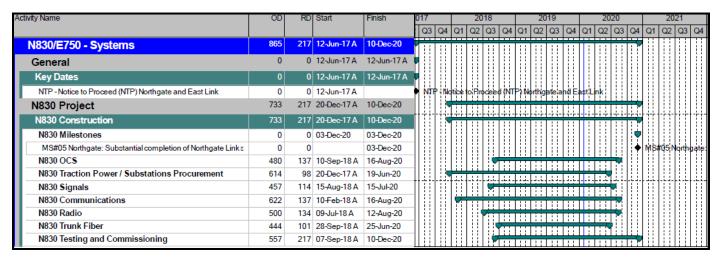
Current Progress

The N830 Contractor, Mass Electric Construction Co. (MEC), continued to prosecute the work as follows:

- Installed UPS, battery cabinets, isolation transformer, and network rack at Roosevelt Station (RVS).
- Installed conductor cable, inverter, and battery cabinets at U District Station (UDS). Tested 26kV cable UDS to RVS.
- Continued installing reverse running signals and testing at International District Station (IDS) / Downtown Seattle Transit Tunnel (DSTT).

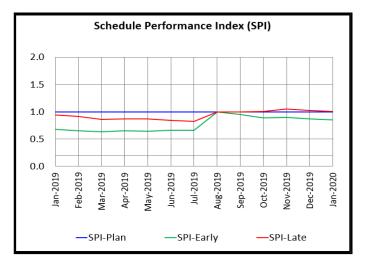
Schedule Summary

The January update from MEC now forecasts an on-time completion in December 2020. The critical path is driven by Signals and Communications installations. This is followed by testing of the equipment in the field and finally, systems integrated testing. Overhead Catenary System (OCS) installation is ongoing in the tunnels. MEC has completed testing of the Northgate Station Traction Power Substations (TPSS) units and will be ready to install them onsite starting in early February 2020.



Schedule Performance Index

This period, the SPI early is 0.85 (nearly the same from 0.87 last period) and the SPI late is 1.01 (nearly the same from 1.03 last period). The indices are nearly the same from the previous month. ST and CMC continue to work closely with the Contractor/Subcontractors to help strengthen the schedule and improve performance.





Next Period's Activities

- Continue development and reviews of engineering submittals covering all disciplines: Traction Power Substations (TPSS), Overhead Catenary Systems (OCS), Train Control Signal Systems, and Communications.
- Ongoing coordination meetings between systems and civil contractors for interface and access points for respective contracts.
- Ongoing installation of TPSS switchgear, and signal racks in train control equipment room and communication conduits/cables at University District Station.
- Ongoing installation of TPSS equipment in train control room, communications rack in equipment room, and pulling cable to field end devices at Roosevelt Station.
- Ongoing installation of communication devices, OCS brackets, and wiring at Northgate Station.
- Ongoing installation of OCS bracket, cables for trackside devices and communications fiber and radio radix cable and support brackets in the Northgate tunnels.

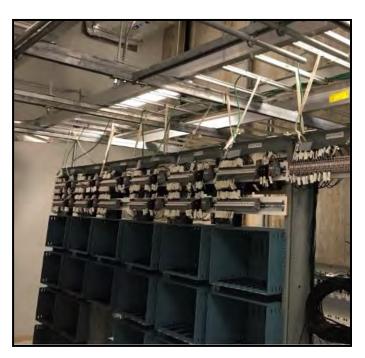
Closely Monitored Issues

- Sound Transit and Construction Management Consultant (CMC) coordination ongoing for the IDS cutover change from full shutdown to single tracking.
- ST and CMC closely monitoring conduit handover from Civil to Systems Contractor; mitigation steps have been taken by the Systems CMC surveying all conduits and to work closely with the Civil Contractors to rectify the situation.
- Sound Transit and CMC concerned Contractor's rampup of labor is not sufficient to meet the planned construction activities. Sound Transit and CMC closely tracking the planned ramp-up of labor in comparison to actual progress.

Cost Summary

Present Financial Status	Amount						
N830 Contractor - Mass Electric Construction Co.							
Original Contract Value	\$104,660,444						
Change Order Value	\$848,718						
Current Contract Value	\$105,509,162						
Total Actual Cost (Incurred to Date)	\$58,356,422						
Percent Complete	62%						
Authorized Contingency	\$5,233,022						
Contingency Drawdown	\$848,718						
Contingency Index	3.8						

*The N830 and E750 Systems is a joint procurement. The Cost Summary table above represents N830 Systems only.



RSV Station: Signal Room Rack Mounting & Grounding



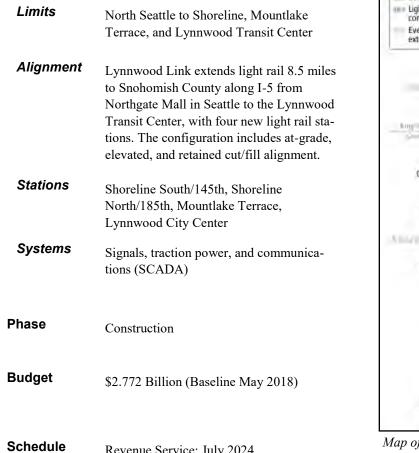
Link Light Rail Lynnwood Link Extension

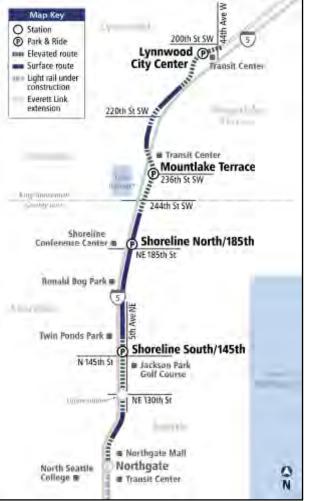
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Link Light Rail Lynnwood Link Extension

Project Summary

Scope





Revenue Service: July 2024

Map of Lynnwood Link Extension Alignment.

Key Project Activities

- Continued integration of contract modification scopes into the schedules for each active heavy civil GC/CM contract.
- Began ground improvement work (L200). .
- Continued construction of Phase 2 area mitigation work at the Ronald Bog site in Shoreline (L200). •
- Activated on-site temporary parking revisions and commenced guideway work though the Lynnwood Transit Center • (L300).
- Commenced drilled shaft installation on the L300 contract, with L200 drilled shaft installation continuing for two structures.
- Received price proposal for the 100% systems design package and commenced negotiations with the L800 systems GC/ CM.





Project Cost Summary

The project cost is summarized below in two cost categories. The first table summarizes costs in accordance with Sound Transit's budget Work Breakdown Structure (WBS). The second table summarizes costs in accordance with the FTA's Standard Cost Categories (SCC) format. The figures in both tables are shown in millions.

In January 2020, \$23.1 M was incurred. The major project expenditures were for civil construction, construction management, and work toward completion of civil & systems final design. The remaining expenditures were for right of way, third party coordination, permits, staff, legal, and other direct charges.

Authorized Commit-Estimated Authorized Baseline Incurred to Project **Project Phase** ment to **Final Cost** Allocation Budget Date Date (EFC) vs. EFC Allocation Administration \$98.2 \$98.2 \$37.2 \$36.8 \$98.2 \$0.0 Preliminary Engineering \$39.1 \$39.1 \$39.1 \$39.1 \$39.1 \$0.0 **Final Design** \$164.2 \$164.2 \$140.7 \$113.3 \$164.2 \$0.0 **Construction Services** \$128.4 \$128.4 \$92.3 \$31.2 \$128.4 \$0.0 \$14.6 \$14.6 \$11.1 \$8.5 \$14.6 \$0.0 **3rd Party Agreements** Construction \$1,921.4 \$2,091.6 \$1,711.6 \$216.4 \$2,091.6 \$0.0 Light Rail Vehicles \$0.0 \$0.0 \$0.0 \$0.0 \$0.0 \$0.0 ROW \$235.7 \$235.7 \$175.1 \$157.5 \$235.7 \$0.0 \$170.2 \$0.0 \$0.0 \$0.0 \$0.0 **Project Contingency** \$0.0 Total \$2,771.6 \$2,771.6 \$2,207.0 \$602.9 \$2,771.6 \$0.0

Cost Summary by Phase

Cost Summary by SCC

SCC Element	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$791.8	\$1,002.2	\$676.4	\$19.6	\$711.4	\$290.8
20 Stations	\$333.8	\$333.8	\$408.8	\$2.6	\$430.1	-\$96.4
30 Support Facilities	\$2.0	\$2.0	\$0.0	\$0.0	\$2.0	\$0.0
40 Sitework & Special Conditions	\$421.1	\$426.2	\$569.6	\$191.6	\$645.6	-\$219.4
50 Systems	\$244.4	\$244.4	\$46.1	\$0.4	\$219.4	\$25.0
Construction Subtotal (10 - 50)	\$1,793.0	\$2,008.5	\$1,700.9	\$214.2	\$2,008.5	\$0.0
60 Row, Land	\$235.7	\$235.7	\$175.1	\$157.5	\$235.7	\$0.0
70 Vehicles (Non-Revenue)	\$1.4	\$1.4	\$0.0	\$0.0	\$1.4	\$0.0
80 Professional Services	\$449.3	\$450.6	\$331.1	\$231.1	\$450.6	\$0.0
90 Unallocated Contingency	\$292.2	\$75.4	\$0.0	\$0.0	\$75.4	\$0.0
Total (10 - 90)	\$2,771.6	\$2,771.6	\$2,207.0	\$602.9	\$2,771.6	\$0.0



Risk Management

The Risk and Contingency Management Plan (RCMP) establishes a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It provides a tool for the project team to proactively manage risks on the project. It is Sound Transit's responsibility to continuously monitor project status and associated risks.

The following are the top project risks:

- L800 Systems GC/CM negotiations (currently underway).
- Relationship with GC/CM contractors and culture of each contract.
- Tight budget and limited contingency; changes during construction that impact cost and schedule.
- Quality of CPM schedule submittals from the civil contractors impairs master schedule clarity and reliability.
- Delays in long lead procurement of girders and other key material/equipment/resources.
- Obtaining permits-Cities, WSDOT and resource agencies.
- Timely completion of utility relocations, ROW acquisition (including CC&Rs) and ROW relocations necessary for construction.
- Coordination of civil/systems interface and potential for civil construction delays to systems construction.



Grading and building eco block wall by I-5 south for L200



Contingency Management

The Lynnwood Link project budget was baselined in May 2018 with a total contingency of \$737.7 M.

Design Allowance (DA) was established to account for unquantified scope at the time of the cost estimate. DA is expected to be fully drawn when all construction contract packages are executed.

Allocated Contingency (AC) is used to address risks, complexity and unforeseen conditions during the execution of work, including procurement.

Unallocated Contingency (UAC) is used to address general project-wide cost risks and uncertainties.

Following a significant drawdown in project contingency in Q2/Q3 2019, Sound Transit revised the contingency forecast to align with the cash flow forecast of the major civil contracts.

During the current period, AC decreased by \$0.4 M for final design and construction change orders. UAC is unchanged.

	Bas	eline	Currren	t Status
Туре	Amount	% of Total Budget	Remaining Amount	% of Work Remaining
Design Allowance	\$247.9	8.9%	\$0.0	0.0%
Allocated Contingency	\$197.6	7.1%	\$181.1	8.4%
Unallocated Contingency	\$292.2	10.5%	\$75.4	3.5%
Total:	\$737.7	26.6%	\$256.5	11.8%

ontingency by Type

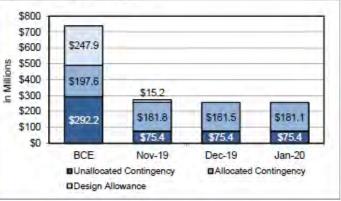
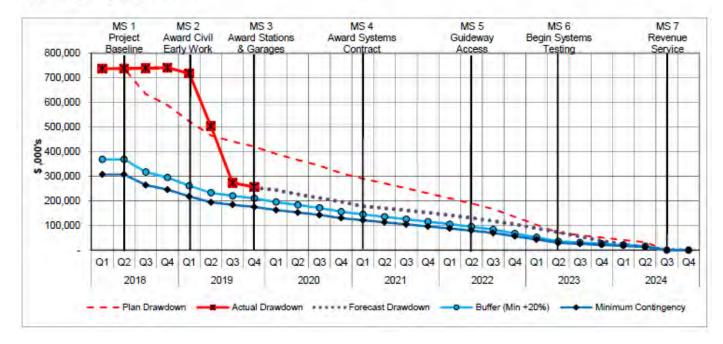


Table figures are shown in millions.

Contingency Drawdown





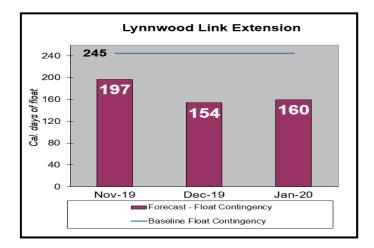
Project Schedule

The January update maintains the July 2024 revenue service date, assuming using 3 months of project float. The critical path is driven by the placement of drilled shafts and subsequent guideway construction within the L200 alignment. The path then proceeds into the L800 systems work after handover of the guideway to the systems contractor. ST has been working closely with both the L200 and L300 contractors in order to complete development of the full civil contract baseline schedules. Calendar issues have been resolved, and level of detail issues continue to be addressed. ST is expecting cost-loaded schedules in March, which should complete the requirements needed for submission and review of the full baselines for the civil construction contracts.

ctivity Name	Start	Finish	Total	2019	2020	2021	2022	2023	2024
LLE Master Schedule	20-May-10A	08-Feb-24	Float 1	1 Q2 Q3 Q4	Q1 Q2 Q3 Q	4 01 02 03 04	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4
Construction of the Construction of the	20-May-10 A	08-Feb-24	171						
Project Administration			6.0						
Final Design/Preconstruction	01-Sep-15A	81-Dec-22	468				1	1	2
Permitting & Agreements	07-Jan-15A	01-Dec-20	970			•			
Utilities	02-May-16A	12-Apr-22	629			-		1	
L200 ROW Acquisitions	04-Jan-16A	29-Jun-20	2136						
L300 ROW Acquisitions	14-Jan-16A	09-Apr-21	995		1			12	
L200 Construction	08-Dec-18 A	19-Oct-23	49	-					
L300 Construction	25-Sep-18A	02-Oct-23	258						· · · · · · · · · · · · · · · · · · ·
L800 Construction 90Pct	03-Aug-20	29-Nov-23	10		-				
LLE Rail Activation	05-Jun-23	11-Jui-24	81			1 1 1		-	
Contracts	05-Jun-23	29-Nov-23	14						
RA Tasks	21-Jul-23	08-Feb-24	245	i		1 1 1			
Pre-Revenue Service	13-Nov-23	08-Feb-24	175			1	1		
Revenue Service - FFGA	08-Feb-24	11-Jui-24	91						-
Program Wide Float (CD)	08-Feb-24	11-Jul-24	91						
Revenue Service - 7/17/2024		11-Jul-24	91						•

Project Float

The Lynnwood Link Extension was baselined with 245 days of project float. Currently the project has 160 days remaining between completion of work and the 17-Jul-2024 Revenue Service Date. At this time, the project has not formally committed to the use of any of the baselined 245 days. A determination of how much project float to use will depend on acceptance of main package L200 and L300 schedules for civil construction, the L800 systems schedule, and incorporation of the full rail activation schedule.



Critical Path Analysis

The critical path for the project currently runs though the L200 project, specifically the path driven by placement of the drilled shafts for A-Bridge in Work Zone 1, then through the elevated guideway construction in both Work Zones 1 and 3 (graphic on following page). Also on the critical path is the 145th Station which is driven by placement of the tub girders in the adjacent guideway. The driving handover to the L800 contract is access to the 145th Station platform for systems construction. From that point on the critical path runs through installation of station communications, conducting systems integration testing and finally through rail activation to revenue service.



Critical Path Analysis, continued

Activity ID Activity Name	OD	RD	Start	Finish	TF		- 20)20			2	021				202	22			2	J23			20)24	
						Π		Ш	Ш	Ш					Π			Т	Ш	Π	Π	Ш			П	Π
L200 Construction	818	801	24-Jan-20 A	02-Apr-23	0									T								Γ			Τ	Τ
Project Wide	30	30	04-Mar-23	02-Apr-23	0																					
WZ-1 Elevated (1437+00 to 1458+63)	7	7	14-May-20	20-May-20	0		•																			
WZ-3 Elevated (1492+45 to 1559+17)	240	240	16-Jul-20	26-Jun-21	0						+															
WZ-4 145th Station & Garage	603	603	13-Oct-20	03-Mar-23	0						÷	÷	÷	÷	+											
L800 Construction 90Pct	167	167	03-Apr-23	29-Nov-23	0					T	1	1	1	1								-	1		1	
L800 90% Systems	167	167	03-Apr-23	29-Nov-23	0																	-				
LLE Rail Activation	332	332	13-Nov-23	10-Oct-24	0																		-	+	+	•
RA Tasks	10	10	29-Nov-23	13-Dec-23	0																					
Pre-Revenue Service	60	60	13-Nov-23	08-Feb-24	0																		-			
Revenue Service	245	245	08-Feb-24	10-Oct-24	0					T		1	1	1						1	1	1			 T	-1

Right-of-Way

The Right-of-Way effort for this project involves the acquisition of a range of property interests which includes compensable (e.g. fee acquisitions, guideway easements, permanent and temporary construction easements) and non-compensable rights (e.g. rights of entry). These acquisitions will result in owner and tenant residential and commercial relocations. The Right-of-Way program status for this period is summarized in the following table.

	Lynnwoo	od Link Extension	Property Ac	quisition Status									
ACQUISITION RELOCATION													
Total Acquisitions	Board Approved	Offers Made to date	Closings to date *	Relocations Required	Relocations Completed to date								
365	393	666	521	375	351								

All numbers are cumulative totals, except where noted. Number of totals may differ from other reports due to the timing of reporting periods. *Total number of parcels available for construction = 321.

Community Outreach

- Inquired with Real Property to determine the status of Temporary Construction Easements (TCE) in anticipation of upcoming work.
- Notified businesses of a water shutoff near the Lynnwood Transit Center on Jan. 10th.
- Coordinated with Community Transit to notify users of the Lynnwood Park & Ride about upcoming parking lot changes.
- Worked with a homeowner regarding blackberry encroachment from WSDOT Right of Way.
- Provided info to homeowners about sound blocking curtains.
- Issued a construction alert for utility work at Mountlake Terrace Center by Snohomish PUD.
- Worked with ST Risk Management on claims for flooded properties in Shoreline.

Sound Transit Board Actions

Board Action	Description	Date
	No board actions this period.	

Link Light Rail Lynnwood Link Extension



Staffing Summary

The planned Full-Time Equivalent (FTE) is an annual projection of ST project staff and consultants. Planned FTE are an annual projection and remains constant from month to month. The Year-to-Date (YTD) Performance is the total actual FTEs accumulated through this reporting period. Staffing status is summarized in the following table.

The planned FTE monthly average takes peaks and valleys in activity into account; whereas the YTD monthly average only reflects January actuals. As construction activity increases through the year, the monthly average will trend closer to the plan.

Resource Type	Planned FTE Monthly Average	YTD Actual FTE Monthly Average	Variance
ST Staff	43	35	(7)
Consultants	87	72	(15)
TOTAL	130	107	(23)

* An FTE is the equivalent of 2080 hours. YTD performance FTE hours are divided by a monthly factor of 173.33.

Construction Safety

Data/ Measure	January 2020	Year to Date	Project to Date
Recordable Injury/Illness Cases	1	1	1
Days Away From Work Cases	0	0	0
Total Days Away From Work	0	0	0
First Aid Cases	2	2	8
Reported Near Mishaps	1	1	9
Average Number of Employees on Worksite	144	144	-
Total # of Hours (GC & Subs)	28,851	28,851	196,291
OSHA Incident Rates	Monthly Average	Year to Date	Project to Date
Recordable Injury Rate	6.93	6.93	1.02
LTI Rate	0.00	0.00	0.00
Recordable National Average		3.00	
LTI National Average		1.20	
Recordable WA State Average		6.00	
LTI WA State Average		1.90	

Note: Due to the timing of contractor's reporting periods, the current month's numbers above are a combination of actuals and estimates. All previous months' numbers are reconciled and replaced with actuals.

Data includes the L200 and L300 contracts.



Systems Final Design Overview

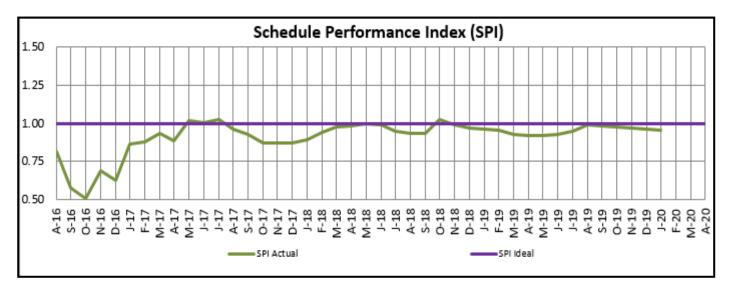
Sound Transit executed a professional services contract with LTK Engineering in July 2016 to perform systems final design along the entire Lynnwood Link alignment. Design services include preparation of comprehensive contract documents for construction, design coordination and cooperation with the civil final designer and GC/CM contractors, permit support, third party coordination support, risk assessment support, value engineering and constructability support, schedules and cost estimating.

Current Progress

- Letter issued by Sound Transit to LTK to selectively delay completion of portions of design work effective October 31st. This delay allows better alignment of the Issue for Construction (IFC) documents and construction contract negotiations and notice to proceed. Exceptions may be directed for certain activities like signal systems, communication systems and cost estimating work, if the need arises.
- No design revisions occurred in January 2020.

Schedule Performance Index

The cumulative Schedule Performance Index (SPI) trends at 0.95 through January 2020, which means that the cumulative amount of work accomplished is lower than the overall work planned.

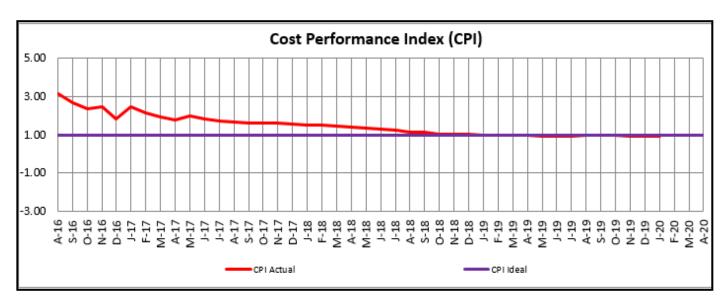


Link Light Rail Lynnwood Link Extension



Cost Performance Index

\$9.8 M (99%) of the total contract amount has been spent through January 2020. The systems final design percent complete is 94%, with an earned value of \$9.4 M. The cumulative Cost Performance Index (CPI) is 0.94 indicating the earned value of the work performed is lower than the actual cost incurred.



Cost Summary

Present Financial Status	Amount
LTK Engineering	
Original Contract Value	\$9,293,684
Change Order Value	\$650,494
Current Contract Value	\$9,944,178
Total Actual Cost (Incurred to Date)	\$9,831,353
Financial Percent Complete	98.9%
Physical Percent Complete	94.1%
Authorized Contingency	\$650,558
Contingency Drawdown	\$650,494
Contingency Index	0.99



Light Rail Train run by the Overhead Catenary System (OCS) powered from the Traction Power Substation (TPSS).



Contract L200 GC/CM—Northgate to NE 200th Street

Current Progress

The L200 Contractor, Stacy & Witbeck- Kiewit- Hoffman JV (SKH), is continuing work on site as follows:

- Work Zone (WZ)-1: Completed drilled shafts A8-A11. Installed temp fencing and lighting.
- WZ-2: Completed ductbank at 125th. Church parking lot paved and fenced.
- WZ-3: Fabricated drilled shaft cages for C5-C7. Installed pump/generator at Basin B.
- WZ-5: Continued installation of Ronald sewer A and B. Started ductbank at 155th St. Installed pump/generator at Basin C.
- WZ-7: Completed Ronald sewer D install, continue pipe welding. Continued soldier pile wall excavation.

Schedule Summary

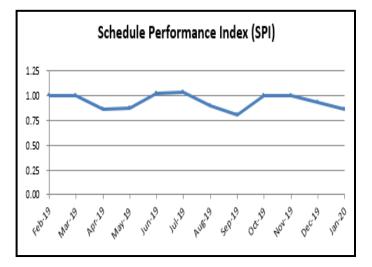
The January update from SKH continues to indicate late completion of work. SKH has eliminated the use of a "Weather Calendar" and continues to add greater detail to the work activities, adding over 2,000 activities in this update. ST is currently reviewing the update and does note that while level of detail has increased, so have the durations. Milestones within the schedule have continued to fall behind and ST is working with SKH to validate both sequencing and production assumptions.

civity Name	Start.	Finish	Total	2020	2021	2022	2023	2024
L200 Construction	08-Dec-18A	19-Oct-23	Float C	11 02 03 04	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3
L200 Construction	02-Jan-20A	12-Jul-23	118					
	08-Dec-18A	19-Oct-23	49					
Project Wide	The second second	to system						
WZ-1 Elevated (1437+00 to 1458+63)	DS-Apr-19A	01-Jun-23	146					
WZ-2 At Grade - Fill (1458+63 to 1492+45)	21-Mar-19A	01-Sep-23	81					
WZ-3 Elevated (1492+45 to 1559+17)	23-Mar-19A	01-Sep-23	81					
WZ-4 145th Station & Garage	09-Apr-19.A	01-Sep-23	81			-		
WZ-5 At Grade - Fill (1559+17 to 1571+30)	26-Mar-19 A	14-Feb-23	222			-		
WZ-6 155th Bridge (1571+30 to 1572+40)	22-May-19 A	29-Jun-23	126					
WZ-7 At Grade - Retained (1572+40 to 1624+00)	27-Mar-19 A	01-Sep-23	81					
WZ-8 175th Bridge (1624+00 to 1631+25)	25-Apr-19A	15-Jun-22	380			~		
WZ-9 At Grade - Cut (1631+25 to 1661+78)	15-Apr-19A	01-Sep-23	81		-		-	
WZ-10 185th Station & Garage	08-Apr-19.A	04-Jan-23	221				•	
WZ-11 At Grade (1661+78 to 1694+01)	09-Apr-19 A	16-Nov-22	252					
Provisional Sums	22-Mar-19A	02-Sep-23	81					
Change Orders	01-Feb-20	31-Jul-23	107					

Schedule Performance Index

The cumulative SPI is at 0.86 meaning the cumulative amount of work accomplished is below the planned.

Through January, the earned value represents only the early work portion of the contract. The major contract modification is not yet integrated into the earned value plan.



Link Light Rail Lynnwood Link Extension



Work Zone Overview



Next Period Activities:

- WZ-1: Drill shafts for A5-A8. Fabricate shaft cages. Setup staging yard at south cloverleaf.
- WZ-2: Start site water discharge and finish noise wall demolition.
- WZ-3: Fabricate shaft cages and install temp lighting at 145th.
- WZ-5: Continue ductbank install, site access for noise wall installation and Sewer A & B.
- WZ-7: Begin Ronald sewer install. Start soldier pile wall install and grading.
- WZ-9: Finish temp fencing and lighting at 185th.
- WZ-11: Begin clear/grub at 195th. St.

Closely Monitored Issues:

- Monitoring timing of receipt of all permits necessary for construction.
- Evaluating cost impact of plan set revision between the early work pricing and Issue for Construction (IFC) sets.
- Coordination of construction impacts to bicycle/ pedestrian path between 1st Ave NE and NE 116th St.
- Erosion and sediment control during the wet season; impacts of heavy rain and snow occurrences.
- Delays due to severe rain this month.

Cost Summary

Financial Status	Amount
L200 Contractor - SKH	
Original Contract Value	\$ 88,147,258
Change Order Value	\$ 752,351,006
Current Contract Value	\$ 840,498,264
Total Actual Cost (Incurred to Date)	\$ 148,223,939
Percent Complete	18.8%
Authorized Contingency	\$ 43,762,892
Contingency Drawdown	\$ 533,399
Contingency Index	15.4



WZ-1 drilled shaft A9



Contract L300 GC/CM—NE 200th Street to Lynnwood Transit Center

Current Progress

The L300 Contractor, Skanska, is continuing work on site as follows:

- Completed walls and access roads in Work Area (WA)-4 and 6. Continuing wall and access road work in WA-1 and 3.
- Continued stormwater collection system construction in WA-8, 9, 13, 14, and 15.
- Continued clearing, grubbing, and grading areas of WA-7, 8, and 12.
- WA-6: Began installing soldier piles and lagging for wall along 236th St. SW.
- WA-7: Installed duct bank and manholes at the MLT Transit Center. Completed temporary pavement restoration and removed the bathroom building.
- WA-8: Began installing soil nail wall to the slopes of the mid-section of this work area.
- WA-10 and 11: Continuing to stage materials and equipment in the yard adjacent to 220th Street SW. Worked on electrical installation, fencing, placing trailers, and temporary detention ponds within the yard.
- WA-13 and 14: Completed water and storm drain work and pavement restoration on 52nd Ave. W.
- WA-16: Began receiving and assembling cranes, assembling the shaft circular rebar cages, and drilled & poured two drilled shafts. Began directional drill for electrical relocation. Completed excavation and backfill near the Lynnwood Transit Center. Completed utility work and pavement restoration along 44th Ave. W. Opened additional temporary parking area.

Schedule Summary

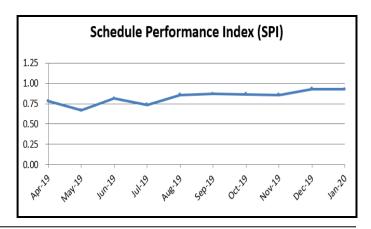
The January schedule update continues to forecast a substantial completion in June 2023. The critical path remains in the shifting of parking at the Lynnwood Transit Center, allowing construction of the new parking garage to begin. Near-critical work are the G and H bridges. Skanska is continuing to work toward greater level of detail in the schedule and also toward completing the schedule cost loading, expected with the March schedule submission.

ctivity Name	Start	Finish	lotal	-	2020	-		-	20.	£1			4	022				2023	-	-	4	029
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	0	2 03	0	4 C	1 0	2 Q3
L300 Construction	25-Sep-18A	02-Oct-23	258	1															-			
L300 Construction			0														_			1		
MILESTONES	25-Sep-18A	05-Jun-23	332	1			-	-	_									•				
ROW ACQUISITIONS (PARCELS & TCE'S)	04-Jun-19A	09-Apr-21	604	-				-														
PERMITTING	01-Feb-19A	22-Aug-20	481	-																		
SUB-CONTRACTS	07-Aug-19A	03-Feb-20	205	1				_														
SUBMITTALS	12-Apr-19 A	10-Jul-20	189	-	-				_													
MATERIAL PROCUREMENT	19-Aug-19A	04-Apr-21	109	1				-								2.00						
EARLY WORK	12-Apr-19 A	06-Nov-20	442	-				_														
3RD PARTY UTILITIES	03-Oct-19 A	17-Mar-20	151	-								5										
CONSTRUCTION	11-Dec-19A	02-Oct-23	258	-												1			-			
CHANGE ORDERS	22-Nov-19A	07-Feb-20	311	7																		
Deleted Activities			0									1										

Schedule Performance Index

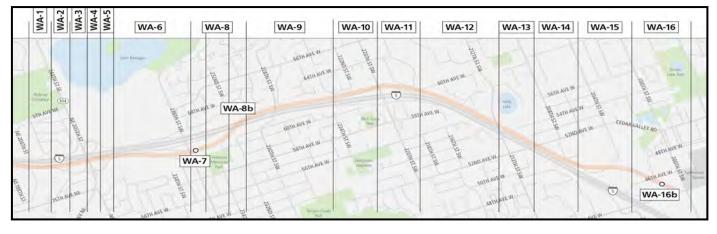
This period the cumulative SPI is at 0.93, which means that cumulative amount of work accomplished is lower than the value of work planned.

Through January, the earned value represents only the early work portion of the contract. The major contract modification is not yet integrated into the earned value plan.





Work Zone Overview



Next Period's Activities

- Continuing installation and maintenance of temporary stormwater collection system and BMPs.
- WA-1-6: Continue work on the access road and walls.
- WA-7: Continue sewer work in the MLT Transit Center area.
- WA-8: Continue to build temporary soil nail walls
- WA-10: Continue to stage equipment, materials and prepare the storage yard.
- WA-16: Drill and install piles in the Lynnwood Transit Center area. Complete drilled shafts in the south parking area, then remobilize and continue in the northeast area.

Closely Monitored Issues

- Monitoring timing of receipt of all permits necessary for construction.
- Evaluating cost impact of plan set revision between the early work pricing and Issue for Construction (IFC) sets.
- Coordination of temporary parking at Lynnwood Transit Center.
- Erosion and sediment control during the wet season; impacts of heavy rain and snow occurrences.

Cost Summary

Present Financial Status	Amount
L300 Contractor—Skanska	
Original Contract Value	\$56,886,631
Change Order Value	\$779,117,299
Current Contract Value	\$836,003,930
Total Actual Cost (Incurred to Date)	\$49,477,201
Percent Complete	11.6%
Authorized Contingency	\$42,888,048
Contingency Drawdown	\$1,003,930
Contingency Index	5.0



Placing crushed base for WA-1 temporary access road.



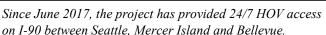
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Link Light Rail I-90 Two-Way Transit & HOV Operations (Stage 3) 50

Project Summary

Scope

The I-90 Two-Way Transit and HOV Operations (Stage 3) project provides approximately four miles of HOV lanes in each direction of the outer roadway between 80th Avenue South on Mercer Island and Rainier Avenue in Seattle. The project includes upgrades and retrofits to the fire, life, safety, and other systems in the Mount Baker and Mercer Island/First Hill tunnels. The project also includes remaining dowel bar retrofit work on the west side of Lake Washington, and the installation of screening on the shared–use pathway on the I-90 floating bridge.



Major Contracts

Phase	Construction		Scope	Agreement/Contract Amount
Budget	\$225.6 Million	WSDOT	Final Design	\$ 20,942,000
•	\$223.0 WIIIIOII	WSDOT	CM Services	\$ 39,188,449
Schedule	Construction Complete: 1st QTR 2019	IMCO	Construction	\$131,515,559
		City of Mercer Isl.	Transportation Mitigation	\$10,050,000

Key Project Activities

- • Civil Construction Complete punch list items
- • SCADA/Simplex Systems Final testing & commissioning, punchlist items
- • Physical Completion Anticipated Q1/2020







Project Cost Summary

The following tables summarize the cost information for the I-90 Two- way Transit and HOV Operations (Stage 3) project. Construction Phase over accruals in December, due to the anticipated execution of the clear-all change order being delayed until later in Q1/2020, resulted in negative project expenditures in January of (\$1.5M). Tables below are in millions.

Cost Summary by Phase						
Project Phase	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$3.6	\$3.6	\$2.3	\$2.3	\$3.6	\$0.0
Preliminary Engineering	\$1.5	\$1.5	\$1.5	\$1.5	\$1.5	\$0.0
Final Design	\$22.1	\$22.1	\$18.7	\$18.2	\$22.1	\$0.0
Construction Services	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
3rd Party Agreements	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction	\$198.3	\$198.3	\$187.0	\$172.9	\$198.3	\$0.0
Total	\$225.6	\$225.6	\$209.6	\$195.1	\$225.6	\$0.0

Co

Cost Summary by SCC

SCC Element	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
40 Sitework & Special Conditions	\$180.6	\$190.7	\$187.0	\$172.9	\$190.7	\$0.0
80 Professional Services	\$26.3	\$26.3	\$22.6	\$22.1	\$26.3	\$0.0
90 Unallocated Contingency	\$18.7	\$8.7	\$0.0	\$0.0	\$8.7	\$0.0
Total	\$225.6	\$225.6	\$205.3	\$195.1	\$225.6	\$0.0

Tables in millions; totals may not equal column sums due to rounding of line entries.

Cost Contingency Management

In the table below, the Allocated Contingency includes both WSDOT-controlled construction contingency and total STcontrolled allocated contingencies. Allocated payment to WSDOT for the pending clear-all settlement with their contractor was accrued in December, but execution of the settlement has been delayed. Reconciliation of December's over accrual resulted in an increase of the remaining Project budget; due to this increase, the overall Current Contingency % decreased by 1.7% when compared to the Remaining Work Budgeted.

Contingency Status	Baseline Amount	Baseline % of Total	Current Amount	CTG as % of Remaining Work Budgeted
Design Allowance	\$0.0	0.0%	\$0.0	0.0%
Committed Allocated Contingency	\$17.0	7.5%	\$1.4	4.5%
Unallocated Contingency	\$18.7	8.3%	\$8.7	28.3%
Total	\$35.7	15.8%	\$10.0	32.8%

Note: Totals may not equal column sums due to rounding of line entries.

Link Light Rail I-90 Two-Way Transit & HOV Operations (Stage 3) Sour



Project Schedule

Project Milestones for construction are indicated below; the revised Substantial Completion date, retroactive to June 14, 2017, was negotiated by WSDOT with their contractor and authorized by Sound Transit as part of a commercial issues resolution clear -all change order, and as an amendment to the agreement between ST and WSDOT. Formal execution of the settlement change order is anticipated for January 2020.

Contract		ety Systems sioning	Substantial	Completion		Roadway lover	Physical Completion				
I-90 Two-Way Transit & HOV	Baseline	Forecast / Actual	Baseline	Forecast / Actual	Baseline	Forecast / Actual	Baseline	Forecast / Actual			
Operations Stage 3	2/16/2017	Q4/2019	2/20/2017	6/14/2017	5/31/2017	6/14/2017 A	5/31/2017	Q1/2020			

Changes from previous update are indicated in **RED**; A indicates Actual.



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Project Summary

Scope

Limits	Fourteen-mile extension from Downtown Seattle to Mercer Island, Bellevue and the Overlake area of Redmond.
Alignment	East Link Extension expands light rail to East King County via I-90 from Downtown Seattle to the Overlake Transit Center area of Redmond.
Stations	Judkins Park, Mercer Island, South Belle- vue, East Main, Bellevue Downtown, Wil- burton, Spring District/120th, Bel- Red/130th, Overlake Village (OVS) and Redmond Technology (RTS).
Systems	Signals, traction electrification, and com- munications (SCADA).
Phase	Construction
Budget	\$3.677 Billion (Baseline April 2015)
Schedule	Revenue Service: June 2023



Map of East Link Extension Alignment.

Key Project Activities

- Floating Bridge Retrofit (E130): Interior pontoon cathodic protection continues; begin initial activities for installation of double crossover track at the west approach.
- Mercer Island (E130): Punchlist and commissioning activities advance at Mercer Island and Tunnel; continue inspection at East Ballasted 2 segment; begin landscape activities at TPSS 4, final ballast placement at East Ballasted 1 segment.
- **IDS to Mt. Baker Tunnel (E130)**: Progressed IDS track tie-in, underground utilities; advance plinth milling, track installation along the east bound D2 Roadway; Ancillary Building and platform construction at Judkins Park Station continues.
- South Bellevue (E320): Continued guardrail work on the aerial guideway; ongoing electrical and conveyance work at station and garage. Plinth and track work continued to progress as did pigment sealer work in the underground trenches
- **Downtown Bellevue Tunnel (E330)**: Completed tunnel center wall and ongoing duct bank reinforcement, conduits, forming and placement in the tunnel.
- **Downtown Bellevue to Spring District (E335)**: Continued ductbank placement and poured canopy footings at East Main Station. Completed stripping of Wilburton Station elevated deck platform shoring. Continued 120th Station's MEP work at the platform back-of-house rooms and wall and platform floor tile installation.
- **Bel-Red (E340)**: Ongoing concrete work on the aerial guideway. Continued station buildout, track slab grading and rail placement. Sidewalk placement, curb and gutter along NE Spring Blvd.
- SR520 to Redmond Technology Station (E360): Completed demolition and clearing of old office site. Elevator work started at Vertical Circulation Tower (RTS). Ongoing fabrication of pedestrian bridge truss, delivery expected in February.
- Systems (E750): Continued with submittals, component design/manufacturing/fabrication, Progressed on IDS tie-in.





Closely Monitored Issues

- Bellevue Downtown Station (E335) and the Bel-Red Segment (E340) challenges and schedule slippage.
- Design change during construction phase particularly at our most technically challenging stations.
- Quality, construction safety and environment compliances.
- IDS single tracking work in Q1 2020.
- Contractor performance and level of confidence in turning over access to follow on Systems contract.

Project Cost Summary

The project cost is summarized below in two cost categories. The first table summarizes costs in accordance with Sound Transit's budget Work Breakdown Structure (WBS). The second table summarizes costs in accordance with the FTA's Standard Cost Categories (SCC) format. The figures in both tables are shown in millions.

The Estimated Final Cost (EFC) remains the same at approximately \$3.68B. This period's expenditure is a little under \$52.1M, pushes the total expenditure to date from \$2.23B to \$2.28B. Project commitments is over \$3B with all major construction contracts in place and construction is on-going. This period's continues to somewhat under perform due to a combination of resequencing of work plan and construction challenges. It is anticipated to be made up throughout the current year.

Cost Summary by Phase

Project Phase	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$186.2	\$186.2	\$88.7	\$88.9	\$186.2	\$0.0
Preliminary Engineering	\$55.9	\$55.9	\$54.8	\$54.8	\$55.9	\$0.0
Final Design	\$283.0	\$283.0	\$246.6	\$222.9	\$283.0	\$0.0
Construction Services	\$257.5	\$257.5	\$196.7	\$118.1	\$257.5	\$0.0
3rd Party Agreements	\$52.2	\$52.2	\$38.3	\$27.4	\$52.2	\$0.0
Construction	\$2,544.3	\$2,544.3	\$2,185.0	\$1,497.9	\$2,544.3	\$0.0
Light Rail Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$298.2	\$298.2	\$270.9	\$269.9	\$298.2	\$0.0
Total	\$3,677.2	\$3,677.2	\$3,081.0	\$2,279.9	\$3,677.1	\$0.0

Cost Summary by SCC

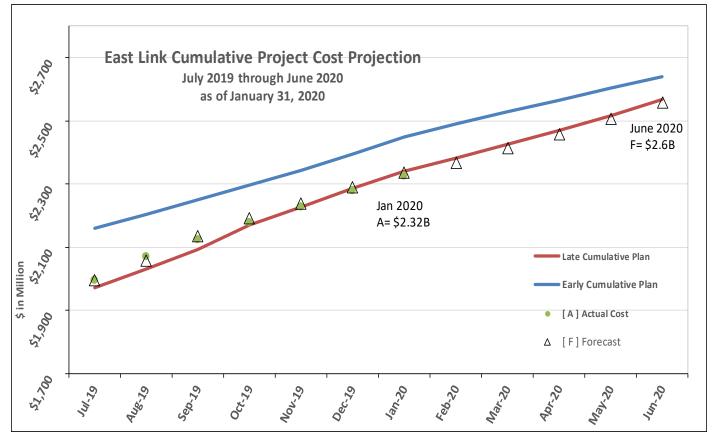
SCC Element	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$744.6	\$949.7	\$894.5	\$705.5	\$954.7	(\$210.1)
20 Stations	\$397.7	\$474.2	\$440.1	\$274.7	\$468.6	(\$70.9)
30 Support Facilities	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
40 Sitework & Special Conditions	\$808.5	\$568.3	\$478.8	\$364.8	\$567.3	\$241.2
50 Systems	\$353.8	\$367.9	\$347.3	\$133.1	\$369.0	(\$15.2)
Construction Subtotal (10 - 50)	\$2,304.6	\$2,360.1	\$2,160.6	\$1,478.2	\$2,359.6	(\$55.0)
60 Row, Land	\$288.5	\$288.5	\$270.9	\$270.9 \$269.9 \$2		(\$0.0)
70 Vehicles (non-revenue)	\$2.8	\$2.8	\$0.0	\$0.0	\$2.8	\$0.0
80 Professional Services	\$898.4	\$889.1	\$649.5	\$531.9	\$889.5	\$8.9
90 Unallocated Contingency	\$182.9	\$136.6	\$0.0	\$0.0	\$136.6	\$46.2
Total (10 - 90)	\$3,677.2	\$3,677.2	\$3,081.0	\$2,279.9	\$3,677.1	\$0.0

Link Light Rail East Link Extension



Project Cash Flow Projection

The East Link cost projection continues to progress within the planned expenditure as construction activities continue to pickup. This period's project to date expenditure topped out at approximately \$42.3M where Construction Phase is responsible for about 95.1% or approximately \$40.3M of January's expenditure. Total project cost incurred to date topped \$2.32B, to which a little under \$1.5B was recorded in the Construction Phase. The project expenditures continue to pick up and is predicted to rise to approximately \$2.6B by June 2020.



Risk Management

The Risk and Contingency Management Plan (RCMP) establishes a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It provides a tool for the project team to proactively manage risks on the project. It is Sound Transit's responsibility for continuously monitoring project status and associated risks.

The 3rd QTR 2019 risks updates have been completed. The Risk Mitigation Milestone #4 (Completion of SEM Tunneling) report is completed and given the current risk profile in the project, there are sufficient schedule and budget in the project to complete in accordance to baseline. The 4th QTR 2019 risk registers are being prepared for update. The following are the current top project wide risks areas:

- Compliance with quality, safety and environmental requirements.
- Design changes during construction, particularly at technically complex stations such as Mercer Island, Bellevue Down-town and Redmond Technology.
- Interfaces between contracts, agency supplied equipment and third party jurisdictions.
- International District Station coordination of pre-requisite work that leads up to East Link tie in to mainline operations work in 1st QTR 2020.



Contingency Management

East Link project budget was baselined on April 2015 with a total contingency of \$795.9M. At the end of this period, all major construction contracts have been procured, the total contingency balance stands at \$358 (previously \$359.4). The current contingency balance is consistent with the project's planned contingency drawdown.

Design Allowance (DA) was established to account for unquantified scope at the time of the cost estimate. DA was reduced by some 300K bring this period's balance to \$3.3M and is expected to be fully drawn when all construction scope are executed.

Allocated Contingency (AC) is used to address risks, complexity and unforeseen conditions during the execution of work, including procurement. This period, AC was drawn down for an aggregate of approximately \$1.4M due to predominantly construction changes. However; AC reports a net increased from \$219.1M to \$224.6M.due to annual budgetary shift from UAC to AC in anticipation of any potential replenishment of construction contract contingency.

Unallocated Contingency (UAC) is used to address general project-wide cost risks and uncertainties. The UAC balance rewash reduced from \$136.6M to \$130.M due to annual budgetary adjustments.

Contangono	, otatao								
Contingency	Base	eline	Current Status						
Туре	Amount	% of Total Budget	Amount Remain- ing	% of Work Remaining					
Design Allowance	\$184.1	5.0%	\$3.3	0.2%					
Allocated Contingency	\$428.9	11.7%	\$224.6	16.6%					
Unallocated Contingency	\$182.9		\$130.0	9.6%					
Total	\$795.9	21.6%	\$357.9	26.5%					

Contingency by Type

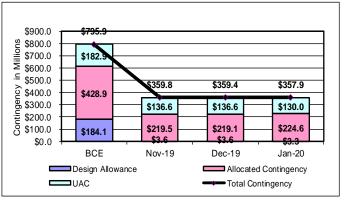
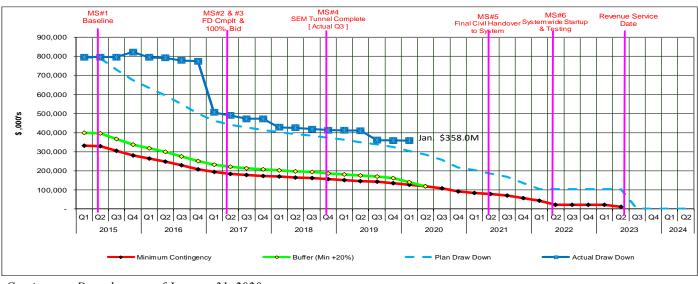


Table figures are shown in millions.

Contingency Drawdown

Contingency Status

East Link Project's total contingency drawdown continues to trend within plan with an overall contingency balance at proximately \$358M (previously \$359.4M) and with all major construction contracts procured, remains above the baseline draw down projection and well above both the minimum contingency and the buffered (minimum plus 20%) contingency levels. The contingencies at the end of January represented the monthly draw of about \$1.4M due to various construction change orders.



Contingency Drawdown as of January 31, 2020



Project Schedule

The Integrated Master Schedule is presented below.

E130 continued installing cathodic protection in the HMH floating bridge pontoons; work continued at both stations; commenced tie-in work at International District Station.

E320 continued preparation of TPSS foundation, and OCS foundations; continued plinth pours; continued conveyance and electrical work at S. Bellevue Station; performed civil work in preparation of subballast placement.

E330 achieved Substantial Completion of work within the SEM tunnel; work continues at the South Portal.

E335 continued restoration at 110thAve NE; continued trackwork and ductbank installation on aerial guideway; continued work at all stations.

E340 continued placing plinths and curbs on aerial guideway; continued excavation for trackwall placement on 136th Pl; continued work at 130th Station.

E360 continued placing track slab and skeleton track at the west end of the alignment; continued installing guardrail on aerial guideway; continued placing track on at-grade guideway; continued work at both stations.

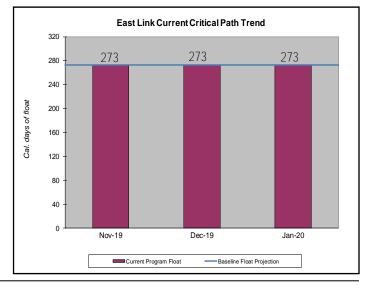
E750 Systems contractor continued procuring equipment and continued mobilizing for construction; commenced tie-in work at International District Station.

All contracts are forecast to complete in time to perform pre-revenue simulation as planned. Revenue Service is forecasted in June 2023.

Activ	ity Name	Start	Finish							
				2017	2018	2019	2020	2021	2022	2023
	Sound Transit	18-Jan-15 A	30- Jun-23							-
	Sound Transit 2	18-Jan-15 A	30- Jun-23							_
	East Conidor	18-Jan-15 A	30-Jun-23							_
	LRT Extension - East	18-Jan-15 A	30-Jun-23							
	East Link	18-Jan-15 A	30-Jun-23							
	East Link Construction	18-Jan-15 A	30-Jun-23							
	EL 130 - Seatle to I-90 Overpass (GC/CM)	10-Mar-17A	30-Apr-21	_				-		
	EL 320 - I-90 Overpass to S. Bellevue (DBB)	05-Dec-16 A	26-Nov -20					r		
	EL 330 - Downtown Bellevue Tunnel (DBB)	18-Jan-15 A	20-Jul-20					1		
	EL 335 - Downtown Bellevue to Spring District (GC/CM)	24-Apr-17 A	16-May-21	_				 		
	EL 340 - Spring District to SR 520 (DBB)	24-Feb-17 A	02-Jul-20					T		
	EL 360 - SR 520 to Overlake Transit Center (DB)	13-Jul-16 A	11-Sep-20				—	1		
	EL 750 - Systems	12-Jun-17 A	31-Mar-22							
	East Link Master Schedule - Construction Interfaces	14-Jun-17 A	01-Mar-20				╈	1		
	ELRACT - East Link Rail Activation/System Integration/Project (02- Apr -22	30-Jun-23					1		
	East Link Rail Activation/System integration Project Closeout	02- Apr -22	30-Jun-23				1	1	-	
	Pre-Revenue Testing& start Up	02-Apr 22	30-Sep-22					1		
	East Link System Integration Testing (3 Mo)	02- Apr -22	30-Jun-22							
	East Link Pre Revenue Operations (3 Mo)	01-Jul-22	30-Sep-22					1		
	Revenue Service Window	01-Oct-22	30-Jun-23					.		
	East Link Program Float - 9 Months	01-Oct-22	30-Jun-23							
	East Link Revenue Service Date (Baseline 30-Jun-23)		30-Jun-23*							+

Project Float

East Link was baselined with 273 days of program float. To date, no float has been used.





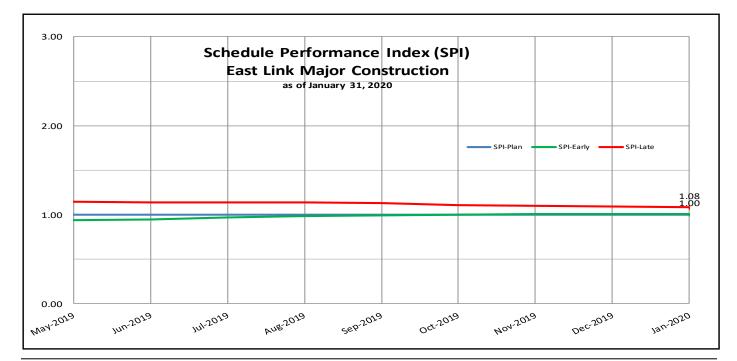
Critical Path Analysis

The East Link critical path this month runs through E335 work at Bellevue Downtown Station to the handover to the E750 systems contractor. It then follows OCS installation. Other civil contracts continue to be closely monitored for potential impacts to the E750 schedule.

ctivit y Name	Start	Finish				020				021				022			20		
			24	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q
EL 130 - Seatleto I-90 Overpass (GC/CM)																			
EL 320 - I-90 Overpass to S. Bellevue (DBB)									1					1					
EL 330 - Downtown Bellevu e Tunnel (DBB)						1	1		1		1				1				
EL 335 - Downtown Bellevue to Spring District (GC/CM)	01-Feb-20	09-Sep-20									1								
E335 Construction	01-Feb-20	09-Sep-20									1								
Miestones	14-Aug-20	09-Sep-20	1	1								1							
Construction	01-Feb-20	13-Aug-20									1							: !	
Area 3: North Portal to Aerial Guideway (562+50 - 568+45)	01-Feb-20	13-Aug-20																	
Bellevue Downtown Sation	01-Feb-20	13- Aug-20			:				1		1								
EL 340 - Spring District to S R 520 (DBB)																			
EL 360 - SR 520 to Overlake Transit Center (DB)					1	1	-		1		-	1			1				
EL 750 - Systems	10-Sep-20	27-Mar-22							1									: 1	
E750 Construction	10-Sep-20	27-Mar-22					1		1		1				1				
E750 Project	10-Sep-20	27-Mar-22					1		1		1				1				
E750 En gineerin g	28-Jan-22	27-Mar-22							1				ŧ.	1				1	
E750 Construction	10-Sep-20	27-Mar-22	1		1	1	1		1	1	1	1	1	1	1	1		1	
E750 Milestones	10-Sep-20	27-Mar-22							1									1	
E750 OC \$	10-Sep-20	18-Aug-21				÷ 1			ļ.	÷.	1								
E750 Traction Power / Substations	08-Aug-21	18-Aug-21																	
E750 Testing and Commissioning	18-Aug-21	28-Jan-22										•							
East Link Master Schedule - Construction Interfaces	10-Sep-20	01-Apr-22	1-1	1	1	1 1	1		1	1		1			1	1		1	
EL RACT - East Lin k Rail Activation/System Integration/Project Closeout	02- Apr -22	30-Jun-23					1		1					1	1			: 1	
East Link Rail Activation/System Integration/Project Closeout	02-Apr-22	30-Jun -2 3							1					1					
Pre-Revenue Testing & Start Up	02- Apr-22	30-Sep-22				1	1		1		1			1	1				
East Link System Integration Testing (3 Mio)	02- Apr-22	30-Jun-22									1			i .					
East Link Pre Revenue Operations (3 M o)	01-Jul-22	30-Sep-22	1	[]		1	1	····	1	1		1		-	•				
Revenue Service Window	01-Oct-22	30-Jun-23					1		1					1	1			1	
East Link Program Float -9 Months	01-Oct-22	30-Jun-23					1				1		1			<u> </u>			
East Link Revenue Service Date (Baseline 30-Jun-23)		30-Jun-23*			1	1	1		:	1	1		1	1	1		•	⊁ 1	

Schedule Performance Index

The early Schedule Performance Index (SPI) for East Link's Major Construction Packages remains at 1.00 for this period, which indicates continued steady performance. The late SPI of 1.08 shows that in general, performance is satisfactory.

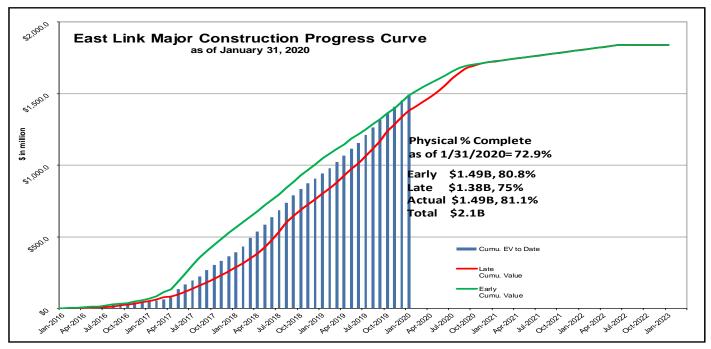


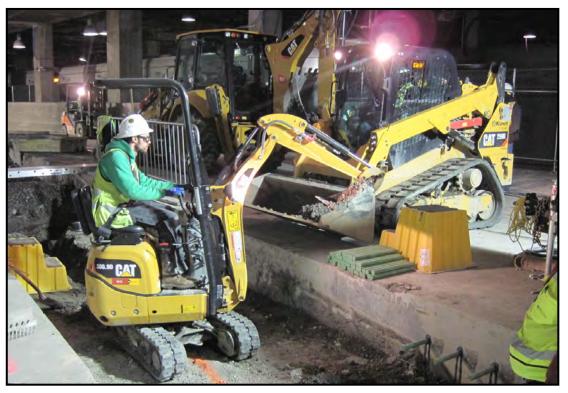
Link Light Rail East Link Extension



Project Cash Flow Projection

The overall East Link Major Construction percent complete analysis is based on a weighted measurement among the seven major construction contracts' schedule, duration and cost. The graph below shows the aggregate cost progression for these construction contracts. As of the end of January, performance continues to trend positively toward the early projection as drawn from the master schedule. The overall physical percent complete for East Link construction is 72.9%.





E130 Seattle to South Bellevue: Connect 2020—East Link rail tie-in in full swing (note operating train in the background).



Community Outreach

- Ongoing distribution of weekly construction alerts for maintenance of traffic activities for Mercer Island, Bellevue and Redmond. Coordinated many briefings and meetings with impacted neighbors about upcoming major traffic changes including but not limited to full closures. January focus: outreach for weekday and weekend lane/sidewalk closure for the ADA ramp work in downtown Bellevue; planned closure and traffic switch on NE 20th and 136th Pl. NE.; continued project messaging through customer service and social media regarding RTC and the recently reconfigured bus loop.
- Ongoing engagement with individual property owners, members of the public, and impacted neighbors on a variety of concerns including demolition, noise wall construction, dust control, signage, night time noise, traffic, access, maintenance of traffic.

Right-of-Way

The East Link Extension involves the acquisition of a range of property interests including fee acquisitions for stations, guideway, staging areas, support facilities, and tunnel and guideway easements as well as permanent and temporary easements for construction. These acquisitions resulted in owner and tenant residential and commercial relocations. Property acquisition and relocations are mostly complete, with limited processing of relocation claims and coordination of property transfers with the City of Bellevue remaining. The right-of-way program status for this period is summarized in the following table:

ACQUISITION RELOCATION								
Total Acquisitions	Board Approved	Offers Made to date	Closings to date	Relocations Required	Relocations Complet- ed to date			
239	246	234	228	229	226			

Staffing Summary

The planned Full-Time Equivalent (FTE) is an annual projection of ST project staff and consultants. Planned FTE are an annual projection and remains constant from month to month. The Year-to-Date (YTD) Performance is the total actual FTEs accumulated through this reporting period. Staffing status is summarized in the following table.

The variance on the staffing is attributed to vacancy; while, the consulting variance is attributed to the fact that construction at this juncture is in full swing and some segments should start ramping down beginning in the summer. Effectively this variance should start to average down as we progress thorough this year.

Resource Type	Planned FTE Monthly Average	YTD Actual FTE Monthly Average	Variance				
ST Staff	57.5	54.3	3.2				
Consultants	106.8	148.7	(42.0)				
TOTAL	164.3	203.1	(38.8)				
* An FTE is the equivalent of 2080 hours. YTD performance FTE hours are divided by a monthly factor of 173.33.							

Link Light Rail East Link Extension



Sound Transit Board Actions

Board Action	Description	Date
	None to report this period.	

Construction Safety

Data/ Measure	January 2020	Year to Date	Project to Date				
Recordable Injury/Illness Cases	4	4	71				
Days Away From Work Cases	1	1	14				
Total Days Away From Work	65	65	1,152				
First Aid Cases	8	8	206				
Reported Near Mishaps	6	6	246				
Average Number of Employees on Worksite	1,280	1,280	-				
Total # of Hours (GC & Subs)	181,199 181,199 4,5		4,579,113				
OSHA Incident Rates	Monthly Average	Year to Date	Project to Date				
Recordable Injury Rate	4.42	4.42	3.10				
LTI Rate	1.10	1.10	0.65				
Recordable National Average		3.00					
LTI National Average		1.20					
Recordable WA State Average		6.00					
LTI WA State Average	1.90						

Note1: Due to the timing of contractor's reporting periods, the current month's numbers above are a combination of actuals and estimates. All previous months' numbers are reconciled and replaced with actuals.



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Major Construction Contract Packages

Below are the major construction contract packages for the project with a brief scope description of each.

R8A Stage 3A - Modification of HOV Ramp between I-90 and Bellevue Way SE. [Design-bid-build]

Status: Completed and Operational.

E130 Seattle to South Bellevue – International District Station (IDS) modification, Retrofit of existing WSDOT structures, I-90 Center Roadway and two light rail stations. [Heavy Civil GC/CM]

Status: See following pages under Contract E130.

E320 South Bellevue – One light rail station and a parking garage at South Bellevue P&R; aerial, at-grade and retained-cut guideway along Bellevue Way SE and 112th Avenue SE. [Design-bid-build]

Status: See following pages under Contract E320.

E330 Downtown Bellevue Tunnel – SEM Tunneling along 110th Ave. NE in Downtown Bellevue. [Design-bid-build]

Status: See following pages under Contract E330.

E335 Downtown Bellevue to Spring District – Four light rail stations; aerial, at-grade and retained-cut guideway from Downtown Bellevue, over I-405 to 124th Ave. NE. [Heavy Civil GC/CM]

Status: See following pages under Contract E335.

E340 Bel-Red - One light rail station, aerial and at-grade guideway from 124th Ave. NE to NE 20th. [Design-bid-build]

Status: See following pages under Contract E340.

E360 SR520 to Redmond Technology Station – Two light rail stations; aerial and retained-cut guideway along SR-520 in the Overlake area of Bellevue and Redmond. [Design-Build]

Status: See following pages under Contract E360.

E750 Systems – Light rail systems elements, including Traction Power Electrification, Overhead Catenary System, Train Signals and Communication System. Combined with Northgate Link N830. [Heavy Civil GC/CM]

Status: Contractor continues with critical submittal, reviews of plans, component and product designs as well as meetings with civil contractors with regards to the Coordinated Installation Plan (CIP), off site TPSS worksite interface inspections and surveys of E130. Commenced East Link Tie-In (Connect 2020) at the International District Station.



E130 Seattle to South Bellevue: Link riders transferring at the temporary center platform at Pioneer Square.



Contract E130 – Seattle to South Bellevue Heavy Civil GC/CM

Current Progress

West Segment: Ongoing IDS track installation, underground utilities; advance plinth milling, track installation along the east bound D2 Roadway; Ancillary Building and platform construction at Judkins Park Station continues.

Center Segment: Interior pontoon cathodic protection continues; begin initial activities for installation of double crossover track at West Approach.

East Segment: Punchlist and commissioning activities advance at MI Station; initiate punchlist and commissioning activities in MI Tunnel; continue freeboard inspection at East Ballasted 2 segment; begin landscape activities at TPSS 4, final ballast placement at East Ballasted 1 segment.

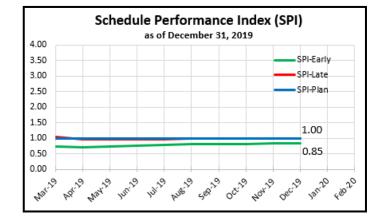
Schedule Summary

The critical path for this project currently runs through cathodic protection on the floating bridge. The contractor's December update is presented below. This schedule submittal was rejected due to non-compliance with ST specifications. A recovery effort is currently underway to mitigate potential disruptions to the E750 systems contractor.

Activity Name	Start	Finish	2020					20		
			0	1 Q	2 0	23 Q4	Q1	Q2		
E130 Construction	10-Mar-17A	30-Apr-21		-				÷		
Milestones	10-Mar-17A	30-Apr-21						÷		
Access Milestones	10-Mar-17A	12-May-17 A								
16. Notice to Proceed - Package 1	10-Mar-17A									
16. Notice To Proceed - Remaining Scope	12-May-17 A									
Major Project Complete Milestones	21-Aug-19A	30-Apr-21								
16. MS#02 - Substantial Completion of IDS Conversion - Reinstate NB Operations (10-Feb-20)		06-Feb-20*	•							
16. MS#03 - Substantial Completion of IDS Conversion - Reinstate SB Operations (16-Mar-20)		12-Mar-20*		+						
16. MS#01 -A coeptance		02-Jul-20			+			1		
16. MS#01 - Substantial Completion West Mercer Island Lid to East End of Project (29-Jan-20)		09-Sep-20*				•				
16. MS#04 - Substantial Completion Al Work (12-Dec-20)		31-Mar-21*						•		
16. A coeptance		30-Apr-21						•		
Milestone 1 Interim Dates	21-Aug-19A	09-Sep-20				-				
Construction	20-Mar-17A	01-Mar-21								
Pre liminary Activities	03-Apr-17 A	28-Apr-20								
Sitework	23-Aug-17A	08-Jan-20						1		
Demolition	20-Jul-17 A	29-Jan-20								
Tun nel Modifications	18-Sep-17A	23-Oct-20	_							
Stations	31-May-17 A	10-Nov-20								
OCS Bases/Frames	02-Apr-18 A		_	_	_	-				
Civil/Utilities	05-JJE 17 A	21-Jan-21						+		
Electrical	20-Mar-17A	27-Aug-20				-				
Structures Retrofit	20-Mar-17A	01-Mar-21								
Trackwork	29-Jan-18 A	08-Jan-21					i i			
	26-Jun-17 A	05-Nov-20					ľ			
System s IDS Modification								÷		
ILS MODIFICATION	16-Jan-19 A	23-Jun-20								

Schedule Performance Index

An acceptable schedule update for January had not been received from the contractor at the time of this report. Current Schedule Performance Index information is not available; SPI data is current as of December 31, 2019.





Next Period's Activities

- West Segment: Progress construction of Judkins Park Station ancillary building & platform; continue installation of IDS pocket track.
- Center Segment: Progress cathodic protection in pontoon interiors; continue double crossover track installation at West Approach, seismic retrofit work at East Approach.
- **East Segment**: Ongoing punchlist & commissioning activities, platform tiles & pavers installation at MI Station; begin installation of vehicle crossing panels at East Ballasted 1 segment.

Closely Monitored Issues

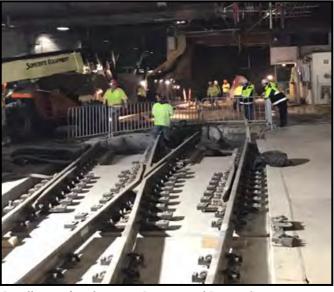
- Current East Segment activity progress to reach Milestone 2 and potential impacts to E750.
- Schedule details for Coordinated Installation Program (CIP) requirements, Submittals, Procurement, and NCR's .
- Coordination of rail tie-in activities at the International District Station.
- Requirement for shielding non-conductive wires for the cathodic protection on floating bridge.



E130 Construction Segments

Cost Summary

Present Financial Status	Amount
E130 Contractor - Kiewit-Hoffman	
Original Contract Value (incl. Phase 2 MACC)	\$665,000,000
Change Order Value	\$26,939,962
Current Contract Value	\$690,984,962
Total Actual Cost (Incurred to Date)	\$520,783,557
Percent Complete	74.07%
Authorized Contingency	\$46,660,541
Contingency Drawdown	\$26,939,962
Contingency Index	1.3



Installation of track turnout, International District Station

Contract Value excludes Betterment



Contract E320 – South Bellevue

Current Progress

I-90 Flyover: Plinth work on the guideway continues as does emergency guardrail work. Maintenance stairs being erected and pigment sealer being applied to structures. Continue civil restoration work in the area.

Bellevue Way SE (BWSE): Continued pigment sealer work in multiple sections as well as forming/rebar and pouring (FRP) traffic barrier and slab work along BWSE.

S. Bellevue Sta./P&R: Vertical conveyance work continued in both the garage and station, with plumbing work in the garage continuing as well as electrical work in the station and garage as well. Plumbing/HVAC work continues in the garage.

Wye-to-East Main and Track Work: Continued civil work relating to constructing mechanically stabilized earth (MSE) wall and undercrossing structure and walls. Continued prep work for double-crossover installation.

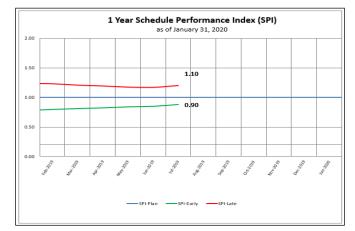
Schedule Summary

The critical path for this project continues to run through the 112th undercrossing and trench along Bellevue Way SE. The contractor is currently forecast to achieve substantial completion in time to hand over the station and guideway to the E750 systems contractor.

Activity Name	Start	Finish		2	020		
			Q1	Q2	Q3	Q4	
E320 Construction	05-Dec-16 A	25- Nov -20					
Milestones and Summary	05-Dec-16 A	25-Nov -20					
Contract Milestones	05-Dec-18 A	25-Nov -20					
Limited Natice to Praceed Natice to Praceed	05-Dec-16 A 13-Feb-17 A						
Miestone 3A - Clear& Grub Sweyddocken (Stat of "Wetland Fill" Work+365D) Miestone 1 - (Atemate), Phase B 21 Not Used Miestone 3B - Clear& Grub Coal Creek Miestone 2 - Final Restoration of Belevue Way (Star+897D)		21-Dec-18 A 31-May-19 A 22-Nov-19 A 09-Aug-20*			•		
Miestone 4 - SIDT & SCADA Complete (NTP+1180D) Miestone 5 - Acceptance of South Belevue Station (NTP+1225D) Miestone 8 - Required Substantal Completion (NTP+1334D)		17-Aug-20* 25-Sep-20* 25-Nov -20*	 		•	•	
Construction-1	21-Apr-17 A	06-Nov -20					
Mobilization Area A - I-90 Mainline to Bellevue Interchange - Sta E B405+54 to EB439+20 Area B - Bellevue Way SE, SE 30th St to 112th Are SE Wye - Sta EB439+20 to EB476+75	21-Apr-1 7 A 16-Jun-1 7 A 30-May-17 A						
Area C - 112th Ave SE, 112th Ave SE Wye to SE 8th - Sta EB476+75 to EB508+00	13-Jun-1 7 A	28-Sep-20				•	
Area D - 112th Ave SE to SE 8th St to Main St - Sta 508+00 to EB529+25 Area E - Coal Creek Stream Enhancement	22-May-17 A 09-Jul-18 A	28-Aug-20 22-Nov -19 A			· · · · · ·		
Area F - Sweyolocken Mitigation	23-Apr-18 A	21-Dec-18 A					

Schedule Performance Index

The SPI early remains at 0.9 this month and the SPI late is 1.1. The contractor continues to remain ahead of their late finish plan and are slightly behind their early plan. Affecting the schedule are the station and garage which are running behind plan. Also affecting the schedule is continued resequencing of work. Critical path remains the work on 112th with ballasted track install, weld and de-stress and eastbound track wall work.





Next Period's Activities

- **I-90 Flyover**: Continue plinth work, stairway and emergency guardrail work, as well as, sealant work.
- **Bellevue Way SE**: Continue traffic barrier and pigment sealer work.
- S. Bellevue Sta./P&R: Continue conveyance and electrical work in station and garage; continued station finish work and ongoing site drainage work.
- Wye-to-East Main and Track Work: Continue undercrossing lid structure work, as well as, plinth and track work.

Closely Monitored Issues

- Working adjacent to wetland areas, environmental compliance concerns.
- Refinement to the three-lane reversible Maintenance of Traffic (MOT) on Bellevue Way SE.



Cost Summary

Present Financial Status	Amount*
E320 Contractor - Shimmick/Parsons J	Ι.
Original Contract Value	\$319,859,000
Change Order Value	\$4,033,446
Current Contract Value	\$323,892,446
Total Actual Cost (Incurred to Date)	\$257,770,126
Percent Complete	78.83%
Authorized Contingency	\$38,532,000
Contingency Drawdown	\$4,033,446
Contingency Index	7.5



Plinth and track work on elevated guideway.

* \$ Amount excludes betterments and STArt.



Contract E330 – Downtown Bellevue Tunnel

Current Progress

Tunnel: Completed installing reinforcement and place concrete of the center wall for both standard and expanded zone of tunnel. Completed duct bank reinforcement, conduits, forming and placement for standard section of tunnel and continued at expanded zone. Cleaned Tunnel North of expanded zone and released to E335 on Jan 27th.

South Portal: Continued to maintain the temporary erosion/sediment control and the traffic control. Completed placement of exterior walls at Cut and Cover and started reinforcement and placement of center wall.

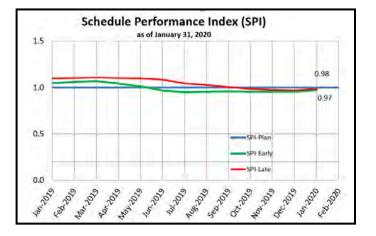
Schedule Summary

The critical path for this contract follows the completion of the South Portal structure. In January, the contractor achieved Milestone 3 (completion of the SEM tunnel) and granted access to the E335 contractor, who will complete trackwork. Contractor is forecasted to achieve Substantial Completion in time to meet their contractual requirements.

			Q1	Q2	Q3	Q4
E330 Construction	15-Dec-15 A	21-Jun-20		•		
CONSTRUCTION	15-Dec-15 A	21-Jun-20		<u> </u>		
ML ESTONE S/CONSTRUCTION EASEMENTS						
	15-Dec-15 A			•		
MLESTONES	15-Dec-15 A					
CALCULATED MILE STONES	15-Dec-15 A	21-Jun-20				
L-NTP	15-Dec-15 A					
NTP	08-Feb-16 A					
MLST1 - A coeptance of the 110th Ave Controlled Low Strength Material Work		14-Oct-16A				
MLST2 - A coeptance of CO #006 Work		14-Oct-16A				
MLST3 - Substantial Completion of all Work from Station EB 542464.52 to Station EB 562447.91		21-Jan-20 A	•	l		I
MLST4 - Substantial Completion Total Contract		21-Jun-20		•		
MOBLIZATION	08-Feb-16 A	11-Feb-20	-			
SITEWORK	29-Feb-16 A	21-Jun-20	H	•		
PRECONSTRUCTION	21-Mar-16A	01-Jun-20	H	÷ • •		
TRAFFICCONTROL	25-Mar-16 A	17-Mar-20				
SURVEY & MONITORING	29-Feb-16 A	03-May-18 A	1	1		
N OR TH PO RTAL ARE A	13-Jun-16 A	14-Od-16A				
CASTIRON PIPE REPLACEMENT	08-Feb-17 A	08-Apr-17 A				
SOUTH PORTAL AREA	29-Feb-16 A	21-Jun-20				
SKYLINE BUILDING RETROFIT	17-Jan-17 A	18-Od-17A				
TUNNELING	01-Feb-17A	06-Feb-20	T	1		
EXCAVATION	01-Feb-17A	20-Jul-18 A				
FINAL TUN NEL LINING	20- Jul- 18 A	03-Jan-20 A	r			
FINAL TUN NEL FINISHES	09-Sep-19 A	06-Feb-20	-	1		
MD TUNNEL	08-Mar-18A	08-Nov -19 A				
DRADE	42.14- 47.4	00 1-00				

Schedule Performance Index

In January, the SPI early is at 0.97 and the SPI late is at 0.98. The SPI curves are lagging behind as weather delay days has not been incorporated in the schedule.



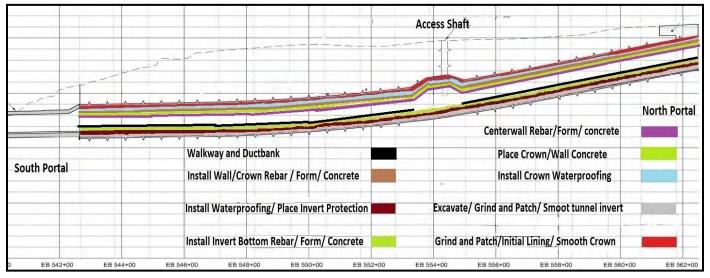


Next Period's Activities

- South Portal: Complete rebar, form and placing interior walls and start shoring for cut and cover lid. Start demobilization.
- **Tunnel:** Complete installing conduits, tying rebar and forming duct bank and walkways at enlarged section. Continue mid-tunnel fan slab shoring towers installations. Complete two hour fire rating handholds.
- Continue coordinating with E335 on turnover items, specifically tunnel access at Milestone 3.

Closely Monitored Issues

• Center wall reinforcing is high in some locations. Working through clearance requirements between Top of Wall and tunnel crown for installation of fire rated material.



E330 Downtown Bellevue Tunnel overall progress (As of 1/31/2020)

Cost Summary

Preset Financial Status	Amount
E330 Contractor– Guy F Atkinson Cons	truction, LLC.
Original Contract Value	\$121,446,551
Change Order Value	\$1,404,253
Current Contract Value	\$120,042,298
Total Actual Cost (Incurred to Date)	\$111,684,062
Percent Complete	94.14%
Authorized Contingency	\$13,548,908
Contingency Drawdown	\$1,404,253
Contingency Index	N/A



Power wash and cleaning center wall at Expanded Zone.



Contract E335 – Bellevue to Spring District Heavy Civil GC/CM

Current Progress

Area 1: East Main Station: Continued placement of electrical and system ductbank below the platform slabs. Continued pour canopy footings on the west, and started on the east. Commenced drilling of light pole foundations started.

Area 3: North Portal (NP)/ Bellevue Downtown Station (BDS): Continued restoration 110th Ave by laying asphalt and pavement. Commenced electrical and fire protection rough-in at mid and platform level. continued installation windscreen structural steel at platform level.

Area 6: 120th-124th Trench/Station: Continued on Mechanical, Electrical, Plumbing in the platform back-of-house rooms. Continued installation of wall tile and platform floor tile. Started installation of aluminum cladding for the south utility chase. On the plaza level, continued installation of glazing lass for the curtain walls and roofing at the plaza entrances and Work on elevators and escalators continued.

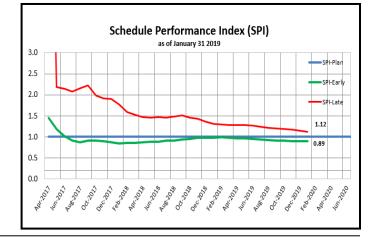
Schedule Summary

There are two primary critical paths on this contract, corresponding to the two handovers to the E750 Systems Contractor — one runs through BDS, and the other follows access to E330 tunnel in Area 2 and goes through the South Portal and its electrical building. Tunnel work will begin in early 2020 The contractor is currently behind on Milestone 3, but coordination efforts are underway to mitigate impacts to the E750 systems contractor.

ctivit y Name	Start	Finish				2			
				Q1	Q2	Q3	Q4	Q1	Q2
E335 Construction	24-Apr-17 A	16-May -21					1		
Milestones	04-May-18 A	16-May-21							
Contract Milestones	30-Sep-18A	16-May -21							
Miestone#1 - Complete North Portal Headwall Temporary Shoring		30-Sep-18A							
Miestone#2- Complete SIDTs for Interface to SCADA		14-Jan-20 A	•						
Miestone#3- Complete Tackway and Stations for Primary Systems Access -BTC to EOP		21-May-20*			+				1
Miestone#4- Complete SEM Tunnel Trackwork for Primary System's Access		16-Jan-21*						•	
Miestone#5 - Complete All Trackway and Stations for Primary Systems Access		16-Mar-21**						•	
Miestone#8- Substantal Completion of all Work		16-May -21*							•
Calculated Milestones	04-May-18 A	23-Apr-21			1				
E335 Achieves Milestore #1		04-May-18 A						1	
E335 Achieves Milestore #2		14-Jan-20 A	•						
E335 Achieves Milestore #3		09-Sep-20				•			
E335 Achieves Milestore #4		10-Feb-21						•	
E335 Achieves Milestore #5		12-Mar-21						•	
E335 Achieves Milestore #0	24-Apr-17 A	23-Apr-21							•
Mobilization									
Construction	24-Apr-17 A	24-Mar-21							
Area 1: E Main Station to South Portal (531+55 - 538+00)	11-Oct-17 A								
Area 2: South Portal to SEM Tunnel (538+00 - 562+47.91	24-Aug-18 A	24-Mar-21							1
Area 3: North Portal to Aerial Guideway (562+50 - 568+45)	24-Apr-17 A	24-Mar-21			1	1	1	•	
Area 4: Aerial Guideway (568+45 - 606+59)	24-Apr-17 A	24-Mar-21						•	
Area 5: Fine Forest to 120th (606+59 - 619+00)	07- Jul- 17 A	24-Mar-21							
Area 6: 120th - End of Project (619+00 - 634+99)	01-Aug-17 A	24-Aug-20			1				
Testing and Commissioning	28-Feb-20	08-Dec-20							

Schedule Performance Index

This period, the SPI early is at 0.89 and the SPI late is at 1.12. The numbers indicate that the contractor continues to lag the early plan yet ahead of late planned curve. These factors contributed to SPI's early falls behind: Construction progress for Stations–Eastmain, BDS, Wilburton and 120th–are behind schedule and slower than planned. Track construction on Aerial Guideway is behind and cause delay to installation of signal ductbank.



Link Light Rail East Link Extension

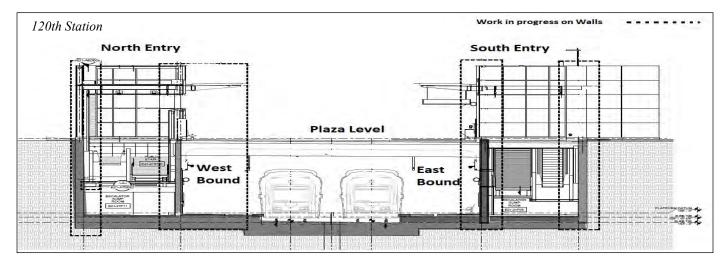


Next Period's Activities

- Area1: East Main Station: Continue install conduits and power ductbank. Continue form, rebar and pour canopy footing.
- Area 3: North Portal (NP)/ Bellevue Downtown Station (BDS): Continue fire protection, mechanical, electrical and plumbing rough-ins at mid and platform level BDS. Continue backfill A line walls at surface level deck.
- Area 6: 120th-124th Trench/Station: Continue finishes, Back Of House, and vertical transportation installation at 120th Station. Continue track work and ballast flooding at BNSF Wye and trestle/aerial areas.

Closely Monitored Issues

- Design revisions for Mechanical, Electrical and Pluming (MEP) stations, impacted City of Bellevue and permits issuance taking longer than anticipated. Currently all changes are finalized and issued to contractor. ST closely monitor the progress of work on site and installation of infrastructure to support these systems at Wilburton and BDS Stations.
- Procurement and selection of switchgear equipment and Jet fans have delayed procurement. This switchgear may now not be procured until late 2020, and PSE will not connect power until this equipment is installed and terminated. ST closely monitor the procurement process.



Cost Summary

Present Financial Status	Amount					
E335 Contractor– Stacy & Witbeck/Atkinson Joint Ven- ture (SWA-JV).						
Original Contract Value (includes station scope)	\$393,798,210					
Change Order Value	\$9,462,316					
Current Contract Value	\$403,260,526					
Total Actual Cost (Incurred to Date)	\$268,427,469					
Percent Complete	74.11%					
Authorized Contingency	\$19,689,911					
Contingency Drawdown	\$9,462,316					
Contingency Index	1.5					



Track work, clipping and alignment at Hospital path.



Contract E340 - Bel-Red

Current Progress

Aerial Guideway Decks: Continued placing typical and special track work plinths, rebar, forming and pouring curbs.

130th Ave Station: Placed stem wall for north-side canopy. Placed station slabs, stripped light pole bases. Continued pre-cast concrete panel repairs at entry canopies. Poured center track slabs.

136th Pl NE: Paved 2nd lift of asphalt on NE Spring Blvd, Continued sidewalk and tall curb along Spring Blvd. Installed signal poles and test signals at intersection.

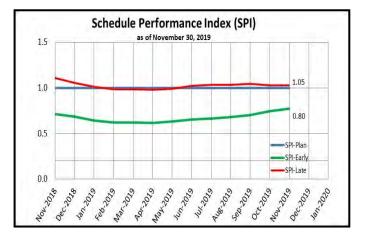
Schedule Summary

Critical path of this project segment now runs concurrently through the 130th Avenue Station and work on 136th Place. The contractor's November update is presented below. Schedule updates have lagged while ST and the contractor negotiate schedule impacts and recovery options in order to preserve the scheduled interface with the E750 systems contractor. No impact to E750 is anticipated at this time.

Activity	Name	Start	Finish	2020	
				24 Q1 Q2 C	13
E34	40 Construction	24-Feb-17 A	02-Jul-20		
CO	INSTRUCTION	24-Feb-17 A	02-Jul-20	++	
~M	ILESTONE S/EASEMENT S-	24-Feb-17 A	02-Jul-20	++	
~~~	Milestones	24-Feb-17 A	02-Jul-20		-
0	Contract Milestones	24-Feb-17 A	02-Jul-20		-
	Limited Natice to Proceed (LNTP - Feb 24 2017)	24-Feb-17 A			
	Notice to Proceed (NTP - March 27, 2017)	27-Mar-17 A			
	MS#1 West Tributary Mitgation Site - NTP + 537 DAYS (September 15, 2018)		14-Sep-18 A		
	MS#2Substantial West Tributary Mitigation Ste-NTP + 828 DAYS (July 1, 2019) Ref. (		10-Jun-19 A		
	MS#3Acceptance of SDIT-NTP + 976 DAYS- (Nov 27, 2019)		26-Nov-19 A		
	MS#4Substantial Completion - NTP + 1156 DAYS - (May 26, 2020)		02-Jul-20*	_     - + +	
~SI	UBMITTALS/PRELIMINARY ACTIVITIES~	24-Feb-17 A	11-Apr-20		-
~10	OBILIZATION~	24-Feb-17 A	29-Jul-19 A		
~SI	ITEWORK~	04-Apr-17 A	01-Jun-20	╺┿┽╼╼╤┊	
~R	ETAINING WALLS~	12-Feb-18 A	18-Mar-20	╺┿┿╼╼╤┊┊┊	
~AE	ERIAL STRUCTURES~	15-May-17 A	01-Apr-20		
~\$1	TATIONS~	01-Aug-18 A	29-May-20		
~EI	LECTRICAL/ITS-	02-Jan-18 A	23-Mar-20	<b>┿┿┯</b> ╡┊	
~FI	INIS HE S~	02-Dec-19	22-Apr-20	╈╋┯┯╤┩╶┊╴	-
~TF	RACKWORK~	13-Jul-18 A	29-May-20	┿┿┯┿┯┊	
~L/	ANDSCAPING/FLATWORK~	22-May-18 A	29-Apr-20		
~TE	ESTING AND COMMISSION ING~	27-Aug-19 A	06-May-20	┿┿┯┿╤╶┊╴	
~D	EMOBILIZATION~	01-Aug-18 A	09-Apr-20	┿┿┯┥┊	

#### **Schedule Performance Index**

The Schedule Performance Index chart has been updated as of November 2019 which is the latest approved update. This period, the SPI early is at 0.80 and the SPI late is at 1.05. The numbers indicate that the contractor continues to lag the early plan yet slightly ahead of late planned curve. The positive trend as seen in the early curve should continue as we get closer to the end of the contract and the remaining monies get billed.



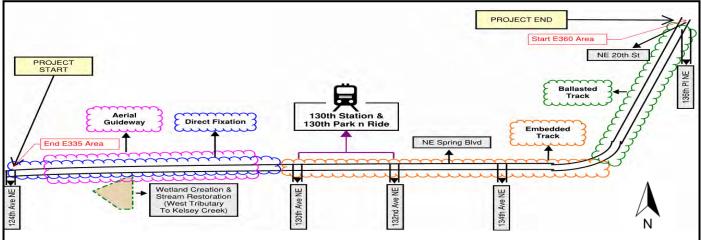


#### **Next Period's Activities**

- Aerial Guideway: Continue curb placement, rebar and form placement, place of typical and special track plinths.
- **130th Ave Station:** Continue repairing precast panels. Install electrical conduit and lighting appurtenances. Continue placing track slabs.
- NE Spring Blvd: Curb and gutter placement. Continue placing track slab along NE Spring Blvd.
- **136th Pl NE**: Finish excavation for track wall placement. Place systems duct bank, signal conduit. Grade for concrete paving for NE 20th St.

# Closely Monitored Issues

- The E340 team continues to see discrepancies between the immediately planned work and the CPM schedule. The CMC is holding regular work planning sessions to resolve issues and expedite work flow.
- NE Spring Blvd was opened on November 22nd. There are outstanding elements of permanent work that may require road closures on the new alignment to complete.
- Precast artistic panels that arrived on site were not acceptable. The contractor is drafting another repair procedure, but ST put the Contractor on notice that they must consider schedule impacts when determining path forward.



# Cost Summary

Present Financial Status	Amount					
E340 Contractor– Max J Kuney						
Original Contract Value	\$93,170,012					
Change Order Value	\$4,270,444					
Current Contract Value	\$97,440,456					
Total Actual Cost (Incurred to Date)	\$74,854,306					
Percent Complete	76.4%					
Authorized Contingency	\$9,317,000					
Contingency Drawdown	\$4,270,444					
Contingency Index	1.67					



Setting track walls at E340.

# E340 Construction Work Areas



# Contract E360 – SR 520 to Redmond Technology Station (RTS)

#### **Current Progress**

**Design**: All design packages are issued for construction. Notice of Design Change work is still ongoing to include ST and KH initiated changes. ST nitiated design changes: PSE Meter Relocation, Track Access at Signal House & Sweeper Site.

#### **Construction:**

- Work Area (WA) #1: Complete strip and final line of direct fixation (DF) track. Start fence installation.
- WA #2: Finalize aerial guideway DF track final line, guardrail, fire standpipe and drainage. Start track de-stressing. Backfill Valley Creek Vault.
- WA #3/4: Continue station canopy and kiosk finishes. Complete demolition, and clearing of existing site offices.
- WA #5: Dress ballasted track and prepare for distressing activities.
- WA #6: Garage facade, finishes and trim out ongoing. Garage Entry Ramp girders set (two spans). Station platform canopy, kiosk and ancillary room finishes ongoing. Start Leased Off Building excavation and foundation. Elevator work starting in the Vertical Circulation Tower.
- WA #7: Continue OVS Pedestrian Bridge paperclip ramp curb, rail and stair concrete placement.

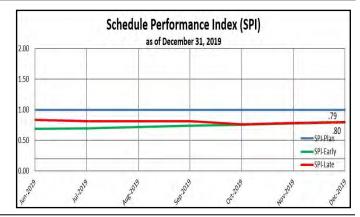
#### Schedule Summary

The critical path currently goes through the structural work at RTS and into the Leased Office Building near the station. The contractor's December update shows 28 days of negative float, for which the contractor has requested schedule relief. This change is currently under review and is unlikely to impact the E750 systems contractor.

Activity Name		Finish		2020		
•			Q1	Q2	Q3	
E360 Construction	13-Jul-16 A	30-Jul-20			-	
Base Contract	13-Ju⊦16A	30-Jul-20			-	
Design	13-Jul-16 A	19-Feb-20				
Design Milestones	03-Oct-16A	01-Jan-20				
Design Overhead	13-Jul-16 A	18-Jul-17 A				
Design and Engineering	13-Jul-16 A	19-Feb-20				
Construction	13-Jul-16 A	30-Jul-20			-	
General	13-Jul-16 A	30-Jul-20			<b></b>	
Project Milestones	13-Jul-16 A	30-Jul-20				
Natice to Praceed	13-Jul-16 A					
Civil/Systems 100% Design Submittal (NTP+300d) (094/1 ay-2017)		10-Apr-17 A				
Milestone 3A for E750 Work		02-Mar-20*	•			
Miestone 3B Substantial Completion		30-Jul-20*			+	
WA#1- Track Slab Guideway	22-May-17 A	21-Feb-20				
WA#2-Aerial Guideway	01-Jun-17 A	03-Apr-20		7		
WA#3- Ballasted Guideway Block#1	01-May-17 A	20-Mar-20				
WA#4- Overlake Village Station	14-Jul-16 A	25-Jun-20				
WA#5- Ballasted Guideway Block#2	15-Aug-17A	30-Mar-20		r		
WA#6- Overlake Transit Center	01-May-17 A	29-Jun-20		•		
WA #7 - OV S Pedestrian Bridge	01-Oct-18A	30-Jun-20			r	

#### Schedule Performance Index

The January schedule was rejected, December early SPI was .79 and late SPI is .80. 164 days has been added the schedule without re-baselining. After February KH will be past the baselined finish and SPI will continue to drop until Milestone 3B is reached. The removal of the RTS Pedestrian Bridge is still being negotiated and is reflected in the EV (Earned Value). SPI will recover slightly with it's removal, depending upon the negotiated amount.





#### **Next Period's Activities**

- WA #1: De-stress and commission DF track.
- WA #2: Continue emergency guard rail, AG duct bank, crossovers, and DF track commissioning.
- WA #3/4: Start site clearing and continue station canopy and kiosk finishes.
- WA #5: De-stress ballasted track, earth to rail test and commissioning.
- WA #6: Continue finishes at Vertical Circulation Tower and ancillary rooms. Station platform finishes & MEP trim. Continue foundation and prep grade at leased office building.
- WA #7: Eastbound truss delivery to site.

E360 Construction Work Areas

#### **Closely Monitored Issues**

- PSE construction schedule for establishing permanent power. Completed this month for RTS. Pending TPSS.
- OVS Pedestrian Bridge Fabrication delays due to welding and fabrication criteria. Delivery ETA Feb 2020.
- Commercial issues for revised RTS Pedestrian Bridge, • As-Built Specification, Safety/Security, City of Redmond CDF, Bike Storage and Exothermic welding.
- Schedule Delays for Building Management Systems E340/E360 Interface, Jan & Feb Weather Events.
- Shared access road for the WSDOT Aggregate Disposal Site and Valley Creek vault.
- Turnover to E750 milestone scheduled for Feb 3, 2020.



#### **Cost Summary**

Present Financial Status	Amount					
E360 Contractor— Kiewit-Hoffman						
Original Contract Value	\$225,336,088					
Change Order Value	\$6,106,697					
Current Contract Value	\$231,189,873					
Total Actual Cost (Incurred to Date)	\$184,896,236					
Percent Complete	87.1%					
Authorized Contingency	\$22,533,609					
Contingency Drawdown	\$6,106,697					
Contingency Index	3.1					



Work Area 2 Aerial Guideway — De-stressing tracks along SR 520.

Excludes Betterment



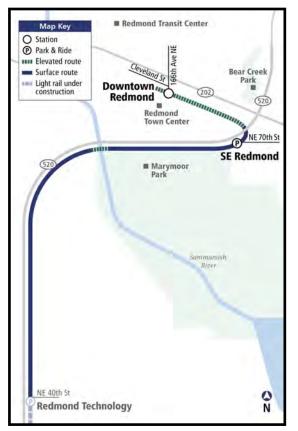
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# Link Light Rail Downtown Redmond Link Extension

#### **Project Summary**

#### Scope

Limits	The Downtown Redmond Link Extension (DRLE) builds new light rail from the Red- mond Technology Station to downtown Redmond.
Alignment	The extension starts at Redmond Technolo- gy Station and travels generally along SR- 520 and SR-202 to downtown Redmond.
Stations	Two Stations—SE Redmond (at Marymoor Park) and Downtown Redmond
Systems	Signals, traction electrification, and com- munications (SCADA)
Phase	Planning
Budget	\$1.530 Billion (Baselined October 2018)
Schedule	Revenue Service: December 31, 2024



Map of Downtown Redmond Link Extension

#### **Key Project Activities**

- Ongoing field work to support final design (survey, geotechnical borings, potholing).
- Reviewing design build contractor revised baseline schedule.
- Continued to work with the Tribes, WSDOT and WDFW on design options for the unnamed tributary to accommodate fish passage per the WSDOT injunction with the Tribes.
- Working to identify possible spots to relocate cell towers.
- Sound Transit appealed the City of Redmond Shoreline permit parties actively working towards resolution.
- Held a successful Codes & Covenant Restriction acquisitions hearing on January 23, 2020.
- Held a collaboration meeting on the city permitting process to date with the City of Redmond and the contractor.
- Finalized a construction services task order between WSDOT and Sound Transit.
- Scheduled a series of public presentations for Q1 and Q2 2020.





# Project Cost Summary

Voters approved funding for preliminary engineering for the Redmond Link Extension (DRLE) in the 2008 in the Sound Transit 2 ballot measure. In response to the 2007-2009 Great Recession, the ST Board suspended the project. In February 2016, the ST Board restored funding to support preliminary engineering of the project prior to funding approval for final design and construction as part of the Sound Transit 3 Plan. Table (below) figures in millions. This project has now been baselined, The baseline budget has been incorporated into the tables below. The first table below summarizes costs in accordance with Sound Transit's budget Work Breakdown Structure (WBS), while the second table in FTA's Standard Cost Categories (SCC) format. The figures in both tables are shown in millions.

In this period, DRLE incurred approximately \$7.9M of expenditure. This period expenditure incurred primarily in the Design Build line of the Construction phase for approximately \$6.5M. The rest of the expenditures for about \$1.4 in January are expended largely to ST staffing and Consultants in Administrative and Construction Services phase and support for ROW phase. Total cumulative expenditure to date is at \$118M.

Project Phase	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$77.0	\$77.0	\$8.4	\$8.3	\$77.0	\$0.0
Preliminary Engineering	\$23.0	\$23.0	\$19.3	\$18.4	\$23.0	\$0.0
Final Design	\$4.5	\$4.5	\$0.7	\$0.3	\$4.5	\$0.0
Construction Services	\$58.0	\$58.0	\$49.7	\$3.9	\$58.0	\$0.0
Third Party Agreements	\$17.0	\$17.0	\$6.7	\$2.5	\$17.0	\$0.0
Construction	\$1,151.5	\$1,151.5	\$726.9	\$36.0	\$1,151.5	\$0.0
ROW	\$199.0	\$199.0	\$51.6	\$48.6	\$199.0	\$0.0
Total	\$1,530.0	\$1,530.0	\$863.4	\$118.0	\$1,530.0	\$0.0

#### **Cost Summary by Phase**

#### Cost Summary by SCC

SCC Element	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$332.4	\$332.4	\$229.5	\$15.8	\$332.4	\$0.0
20 Stations	\$261.9	\$261.9	\$182.5	\$7.4	\$261.9	\$0.0
30 Support Facilities	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
40 Sitework & Special Conditions	\$287.1	\$287.1	\$181.2	\$7.4	\$287.1	\$0.0
50 Systems	\$108.6	\$108.6	\$65.2	\$2.7	\$108.6	\$0.0
Construction Subtotal (10 - 50)	\$990.0	\$990.0	\$658.4	\$33.3	\$990.0	\$0.0
60 Row, Land	\$168.5	\$168.5	\$51.6	\$48.6	\$168.5	\$0.0
70 Vehicles (Non-Revenue)	\$4.1	\$4.1	\$0.0	\$0.0	\$4.1	\$0.0
80 Professional Services	\$289.3	\$289.3	\$153.4	\$36.1	\$289.3	\$0.0
90 Unallocated Contingency	\$78.2	\$78.2	\$0.0	\$0.0	\$78.2	\$0.0
Total (10 - 90)	\$1,530.0	\$1,530.0	\$863.4	\$118.0	\$1,530.0	\$0.0

# Link Light Rail Downtown Redmond Link Extension



#### Risk Management

The Risk and Contingency Management Plan (RCMP) establishes a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It provides a tool for the project team to proactively manage risks on the project. It is Sound Transit's responsibility to continuously monitor project status and associated risks.

The project completed its quantitative risk assessment risk workshop as part of the process project baseline in Q4 2018. The quantitative risk assessment report is completed and finalized with good probability that supported the DRLE baseline cost and schedule assumptions. The externality conditions remains the same this period and may have reduced in some instances, therefore, the project's risk profile remains unchanged. The qualitative risk assessment risk meeting for Q3 was performed in August 2019. Q4 risk register is planned for February 2020. The following continues to be the current top project risk areas:

- Property acquisition market conditions; protracted durations of attaining control of properties; evolving design impacts property needs; however, the current cost risk seems to be subsiding due to appraisals and offers aligning to the baseline budget assumptions.
- Permitting and third party requirements construction adjacent to SR520; flood prone areas by Sammamish River and Bear Creek; archaeological discovery; betterment requests increases complexity of projects; construction impacts to traffic; storm water discharge requirements by King County Parks; protracted negotiation with third parties; interfaces with private utilities for utility relocations.
- Construction market conditions inflationary pressure due to competitiveness for resources and labor; higher materials pricing due to demand as well as regulations (tariffs and taxes); However, since the DB contract bid and awarded for less than baseline estimate, a very significant cost pressure to this project has been averted.
- Agency staffing capacity developing and mobilizing resources and coordinating start up activities across multiple extensions within a short time frame.

# **Project Schedule**

The project schedule is presented below. NTP was issued to the DB contractor on September 9th. Property acquisition and environmental permitting are ongoing. The contractor's baseline schedule was returned for additional revisions, and resubmittal is anticipated in February. The contractor is currently preparing 60% design packages. The project is forecast for completion near the end of 2024.

Activity Name	Start	Finish	
Downtown Redmond Link Extension - Right of Way	27-Dec- 17 A	18-Feb-21	
Down town Redmond Link Extension - Permits & Third Party Agreements	01-Jun-18 A	15-Jan-20	♥
Downtown Redmond Link Extension - Construction	01-Jun-18 A	31-Dec-24	
Downtown Redmond Link Extension - Design-Build Procurement	01-Jun-18 A	08-Sep-19A	
Downtown Redmond Link Extension - Design-Build Contract	01-JJI-19 A	31-May-24	<b>├──┼──┼──┼</b> ┩│
Downtown Redmond Link Extension - Rail Activation/Closeout	15-Dec-23	31-Dec-24	T T T T T T T T T T T T T T T T T T T
Systems Integration & Testing	15-Dec-23	01-May-24	
Safety and Security Certification	15-Dec-23	08-Mar-24	
Pre-Revenue Service	01-Jun-24	29-Aug-24	
Pre-Rev enue Operations	01-Jun-24	29-Aug-24	
Revenue Service/Project Float	30-Aug-24	31-Dec-24	
Project Float	30-Aug-24	31-Dec-24	
RevenueService		31-Dec-24	



# **Right-of-Way**

The Right-of-Way effort for this project involves the acquisition of a range of property interests which includes compensable (e.g. fee acquisitions, guideway easements, permanent and temporary construction easements) and non-compensable rights (e.g. rights of entry). These acquisitions will result in owner and tenant residential and commercial relocations. The right-of-way program status for this period is summarized in the following table.

Downtown Redmond Link Extension Property Acquisition Status							
ACQUISITION RELOCATION							
Total Acquisitions	Board Approved	Offers Made to date	Closings to date	Relocations Required	Relocations Completed to date		
93 93 67 26 1552** 1367							
* All numbers are cumula	All numbers are cumulative totals, except where noted. Number of totals may differ from other reports due to the timing of reporting periods.						

* All numbers are cumulative totals, except where noted. Number of totals may differ from other reports due to the timing of reporting periods.
** A large majority of the relocation count is due to the relocation of storage units.

# **Community Outreach**

- Continued meetings with potentially impacted property owners in southeast and downtown Redmond. Outreach provided updated project information and real estate process information and timing.
- Held open house and public hearing for the removal of Code & Covenant Restrictions for certain Home Owner Associations in Redmond on January 23.

### **Staffing Summary**

The planned Full-Time Equivalent (FTE) is an annual projection of ST project staff and consultants. Planned FTE are an annual projection and remains constant from month to month. The Year-to-Date (YTD) Performance is the total actual FTEs accumulated through this reporting period. Staffing status is summarized in the following table.

The variance from ST staffing is partially caused by vacancy and early stage of the project but mostly due to the cumulative fractions of FTE anticipated across departments. Meanwhile, the consulting variance is due to the fact that the design build project management consultants are being prudent in its mobilization. Effectively this variance gap should start to reduce as we progress thorough this year.

Resource Type	Planned FTE Monthly Average	YTD Actual FTE Monthly Average	Variance		
ST Staff	30.8	21.6	(9.2)		
Consultants	25.9	19.1	(6.8)		
TOTAL	56.7	40.8	(15.9)		
* An FTE is the equivalent of 2080 hours. YTD performance FTE hours are divided by a monthly factor of 173.33.					

# **Sound Transit Board Actions**

Board Action	Description	Date
	None this Period	

# Link Light Rail West Seattle and Ballard Link Extensions

# **Project Summary**

### Scope

- Limits The West Seattle extension includes 4.7 miles of light rail from downtown Seattle to West Seattle's Junction neighborhood. The Ballard extension includes 7.1 miles of light rail from downtown Seattle to Ballard's Market Street area.
- **Alignment** The West Seattle extension route is assumed to run primarily on elevated guideway with a new rail-only bridge over the Duwamish River. The Ballard extension route is assumed to run through a new downtown Seattle rail-only tunnel, elevated guideway, and a rail-only bridge over Salmon Bay.
- StationsFive stations planned for West Seattle Segment. Nine stations planned for the Ballard<br/>Segment.PhasePlanningBudget\$286M through completion of Preliminary<br/>Engineering

Schedule Revenue Service: 2030 (West Seattle), 2035 (Ballard)

# **Key Project Activities**

- Participated in community briefings along the corridor with City of Seattle. Provided overview of outreach, project goals, agency roles, and near-term opportunities for engagement.
- Continued production of the Draft EIS.
- Continued collecting data and conducting fieldwork, including geotechnical borings, for environmental and engineering evaluation in support of design.
- Continued engagement with partner and regulatory agencies, tribes, waterway users, stakeholder groups and property owners regarding environmental process and next steps.
- Continued coordinating with partner agencies including City of Seattle, King County, Port of Seattle and other local, state and federal agencies.







#### **Project Cost Summary**

The West Seattle and Ballard Link Extensions are voter-approved projects under the ST3 Plan. The current Authorized Project Allocation (budget) for the project that has been approved by the Sound Transit Board allows staff to conduct alternatives development, followed by an Environmental Impact Statement, leading to ST Board selection of the project to be built and FTA issuance of a Record of Decision no later than 2022.

Out of the total Authorized Project Allocation, the project is authorized and planned to incur approximately \$31M in 2019 for completing alternatives development and evaluation; EIS Scoping; Draft EIS; conceptual engineering work; project administration and stakeholder engagement.

The project cost is summarized below in two cost categories. The first table summarizes costs in accordance with Sound Transit's budget Work Breakdown Structure (WBS). The second table summarizes costs in accordance with the FTA's Standard Cost Categories (SCC) format. The figures in both tables are shown in millions.

#### **Cost Summary by Phase**

Project Phase	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$63.1	\$10.6	\$10.1	\$63.1	\$0.0
Preliminary Engineering	\$205.4	\$82.6	\$45.1	\$205.4	\$0.0
Final Design	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Services	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
3rd Party Agreements	\$11.4	\$1.4	\$0.4	\$11.4	\$0.0
Construction	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Light Rail Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$6.0	\$2.5	\$0.6	\$6.0	\$0.0
Total	\$285.9	\$97.1	\$56.2	\$285.9	\$0.0

#### Cost Summary by SCC

SCC Element	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
20 Stations	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
30 Support Facilities	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
40 Sitework & Special Conditions	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
50 Systems	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Subtotal (10 - 50)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
60 Row, Land	\$5.0	\$2.5	\$0.6	\$5.0	\$0.0
80 Professional Services	\$263.4	\$94.6	\$55.6	\$263.4	\$0.0
90 Unallocated Contingency	\$17.5	\$0.0	\$0.0	\$17.5	\$0.0
Total (10 - 90)	\$285.9	\$97.1	\$56.2	\$285.9	\$0.0



#### **Risk Management**

Sound Transit has a vigorous risk management program and is committed to identifying, assessing, and monitoring risks and implementing risk reduction/mitigation actions. Risk Assessment for the West Seattle and Ballard Link Extensions Project was conducted as part of the ST3 Planning process.

Project issues and risks identified at this stage include:

- Reaching stakeholder consensus on a preferred alternative, including Third Party funding;
- Complexity of alignments in constrained environment with challenging topography and waterway crossings;
- Complexity associated with tunneling through a mature urban environment;
- Potential construction effects in a constrained environment;
- Potential effect on Central Link operations during construction;
- ROW and property impacts.

#### **Project Schedule**

The preliminary project schedule can be found below. ST Board identified preliminary preferred alternatives (DEIS) on May 23, 2019. FTA issuance of ROD and Final Design are expected to begin in 2022.

Revenue Service between West Seattle and Downtown Seattle is targeted for 2030, and revenue service between Ballard and Downtown Seattle is targeted for 2035.

tvity Name	Start	Finish										_						
			2020 2 0 0 0 0 0	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Sound Transit	17-Mar-17 08 AM														ELEE			SEEE
Sound Transit 3	A	PM 31-Dec-36.04		_	_				-	-		1.0	1, ² 1, 1,					
		1		_			_	· · · · · · ·			-			++		· · · · · ·	0	
ST3 - Central Corridor	17-Mar-17 08 AM	31-Dec-35.04						1		Sec 1		++	1	1		i i	ii	-
West Seafile and Ballard Link Extension - Master Sche	the state of the s	31-Dec-35 04											· ·	++		1		·
West Seattle and Ballard Link Extension	17-Mar-17 08.AM	31-Dec-35.04																
West Seattle and Ballard Link Extensions	17-Mar-17 08 AM															1.1.1		1.11
Alternative Analysis - (Phase )	17-Mar-17 D8 AM	23-May-19 04																
Conceptual Engineering - (Phase II)	24-May-19 08	17-Dec-20.04			100			10.	1.000									
Preliminary Engineering - (Phase III)	14-Oct-21 08 AM	26-May-22.02			- ·									1.1				
West Seattle to Downtown Link Extension	18-Dec-20 08	31-Dec-30 04																
Final Design	16-Jun-21 DB AM	03-Jan-25 04		1.2.4						1.134								1
Permitting /Agreements		22-Apr-25 04 PM			1-12-1		_	2.00										
Right of Way	04-Jul-22 08 AM						-	1	2.77	211								
Construction	04-Jan-25 08 AM							1.1.1	1.1.1		1		1.001					
Post Construction	04-Oct-29 08 AM	31-Dec-30.04												1				
System Integration Testing	04-Oct-29 08 AM	01-Apr-30 04 PM									and the second second		-					
Project Float	02-Apr-30 08 AM	31-Dec-30.04						0.01					-					
Revenue Service	31-Dec-30 04	31-Dec-30 04						1.00										
Ballard to Downtown Link Extension	16-Jun-21 08 AM	31-Dec-35.04								-	1			1	-	-	-	-
Final Design	16-Jun-21 08 AM	25-Apr-28 04 PM			· · · · · · · · · · · · · · · · · · ·	in all successions of the	in the	a the second			. A. Jackson							
Right of Way	01-Jul-22 D8 AM	27-Oct-24 04 PM			-													
Permits and Agreements	01-Jul-22 D8 AM	18-Aug-25 04			1		-	-										
Construction	23-Dec-23 08	23-Jan-34 04				1.15	-	-		-					-	-		
Post Construction	24-Jan-34 08 AM	31-Dec-35 04						-									-	-
System Integration Testing	24-Jan-34 08 AM	23-Jan-35 04		-	·												-	
Project Float	24-Jan-35 08.AM	31-Dec-35.04																
Revenue Service	31-Dec-35 04	31-Dec-35 04		1.00				1.2	1.00	-			1.000	1.000		2.1		122



#### **Community Outreach**

- Prepared and staffed multiple neighborhood events and community briefings in January 2020 for the communities to learn more about light rail route and station location options being studied in the Draft EIS. The specific dates of those events were:
  - First Hill Improvements Association January 6, 2020
  - Tet in Seattle Festival January 18 19, 2020
  - Pioneer Square Historic Preservation Board January 22, 2020
  - Seattle Youth Commission January 22, 2020
  - Seattle Center January 22, 2020
  - SDOT Ballard Interbay Regional Transportation kick-off meeting January 28, 2020
- Draft and distributed monthly Project Update January 17, 2020
- Conducted calls to property owners to discuss upcoming fieldwork adjacent to their property.
- Researched correspondence with property owners in Interbay/Smith Cove and conducted door-to-door outreach.

# Staffing Summary

The planned Full-Time Equivalent (FTE) is an annual projection of ST project staff and consultants. Planned FTE are an annual projection and remains constant from month to month. The Year-to-Date (YTD) Performance is the total actual FTEs accumulated through this reporting period. Staffing status is summarized in the following table.

The planned FTE monthly average takes peaks and valleys in activity into account; whereas the YTD monthly average only reflects January actuals. As design activity increases through the year, the monthly average will trend closer to the plan.

Resource Type	Planned FTE YTD Actual FTE Monthly Average Monthly Average		Variance				
ST Staff	44.8	27.8	(17.0)				
Consultants	125.0	107.6	(17.4)				
TOTAL 169.8 135.5 (34.4)							
* An FTE is the equivalent of 2080 hours. YTD performance FTE hours are divided by a monthly factor of 173.33.							

#### **Sound Transit Board Actions**

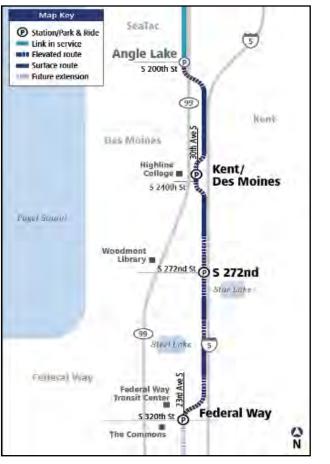
Board Action	Description	Date
	None to report.	

# Link Light Rail Federal Way Link Extension

### **Project Summary**

#### Scope

Limits	The Federal Way Link Extension adds approximately 7.8 miles of light rail from the Angle Lake Station in the City of SeaTac to the Federal Way City Center.
Alignment	The extension generally parallels SR 99 and I-5 freeway.
Stations	Stations at Kent/Des Moines, South 272nd Star Lake Park –and-Ride and the Federal Way Transit Center
Systems	Signals, traction power, and communica- tions (SCADA)
Phase	Proceed to Final Design/Construction
Budget	\$2.45 Billion (Baseline Sep 2018)
Schedule	Revenue Service: December 2024



Map of Federal Way Link Extension.

# **Key Project Activities**

- Full Funding Grant Agreement (FFGA) was approved by FTA. FFGA Signing Event was held at the Angle Lake Station on Jan. 20.
- DBPM Construction Quality Plan was accepted by ST and submitted to FTA for review/approval.
- Continue preparing task order scope of work for advanced utility relocation with Century Link and PSE.
- Execution of Developer Extension Agreements with Lakehaven is in progress.
- Interagency coordination for Midway Landfill agreement is progressing forward with Seattle Public Utility (SPU), WSDOT, Ecology, EPA and FTA; goal to reach agreement resolution by end of Q1 2020.
- Discussions continue with King County Metro for temporary lease parking during construction at Star Lake Park & Ride.
- King County (KC) Fee In-Lieu Environmental Mitigation agreement for purchasing mitigation credits was executed.
- Progress continues with settling Right-of-Way acquisition and relocations this period.





### **Project Cost Summary**

The project cost is summarized below in two cost categories. The first table summarizes costs in accordance with Sound Transit's budget Work Breakdown Structure (WBS). The second table summarizes costs in accordance with the FTA's Standard Cost Categories (SCC) format. The figures in both tables are shown in millions.

This period approximately \$26.5M was incurred for January 2020, of which \$5.8M incurred was for Right-Of-Way; \$3.2M incurred for Construction Services; \$16.3M for Construction phase comprised mainly of \$15.4 for Design Build construction contract and \$0.7M for Construction Permits. Remaining major expenditures of \$1.2M were for Preliminary Engineering, Third Party and Administration. Overall the project Estimate at Completion continues to reflect \$2.45B.

Project Phase	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$96.5	\$96.5	\$21.4	\$21.3	\$96.5	\$0.0
Preliminary Engineering	\$46.5	\$49.0	\$45.5	\$44.6	\$49.0	\$0.0
Final Design	\$3.1	\$3.1	\$1.0	\$0.9	\$3.1	\$0.0
Construction Services	\$107.0	\$107.0	\$15.6	\$10.4	\$107.0	\$0.0
3rd Party Agreements	\$27.7	\$27.7	\$21.2	\$4.7	\$27.7	\$0.0
Construction	\$1,831.9	\$1,829.4	\$1,279.1	\$143.4	\$1,829.4	\$0.0
ROW	\$338.8	\$338.8	\$132.6	\$125.3	\$338.8	\$0.0
Total	\$2,451.5	\$2,451.5	\$1,516.4	\$350.6	\$2,451.5	\$0.0

#### **Cost Summary by Phase**

#### **Cost Summary by SCC**

SCC Element	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$523.0	\$451.1	\$392.7	\$31.8	\$451.1	\$0.0
20 Stations	\$318.9	\$297.7	\$244.5	\$19.7	\$297.7	\$0.0
30 Support Facilities	\$5.3	\$11.8	\$11.5	\$0.9	\$11.8	\$0.0
40 Sitework & Special Conditions	\$558.4	\$489.5	\$407.2	\$32.0	\$489.5	\$0.0
50 Systems	\$153.8	\$170.4	\$116.5	\$9.4	\$170.4	\$0.0
Construction Subtotal (10 - 50)	\$1,559.4	\$1,420.4	\$1,172.4	\$93.7	\$1,420.4	\$0.0
60 Row, Land	\$341.6	\$338.8	\$132.6	\$125.3	\$338.8	\$0.0
70 Vehicles	\$1.8	\$1.8	\$0.0	\$0.0	\$1.8	\$0.0
80 Professional Services	\$370.7	\$514.4	\$211.4	\$131.5	\$514.4	\$0.0
90 Unallocated Contingency	\$178.1	\$176.3	\$0.0	\$0.0	\$176.3	\$0.0
Total (10 - 90)	\$2,451.5	\$2,451.5	\$1,516.4	\$350.6	\$2,451.5	\$0.0



#### **Risk Management**

The Risk and Contingency Management Plan (RCMP) establishes a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It provides a tool for the project team to proactively manage risks on the project. It is Sound Transit's responsibility for continuously monitoring project status and associated risks.

Below are the top project risks:

- Obtaining easements for PSE advanced utility relocation could impact DB Contractor schedule.
- Design review/approvals may not be completed in timely manner by jurisdictional partners, thus delaying project progress.
- Midway Landfill crossing agreement may not reach timely execution with WSDOT & SPU prior to DB contract submittal permit package.
- Known third party utility relocations may not occur as scheduled, delaying DB construction activities.
- FFGA review and approvals could cause construction contract schedule delays.
- Federal Way Transit Center design changes could impact construction contract.

#### **Project Schedule**

The project schedule is presented below. Right-of-Way acquisitions and relocations continue and additional detail has been added to the master schedule to monitor any impacts to the project. LNTP was issued June 7th. The baseline schedule submittal was approved in January and the first schedule update is expected in February. Our Full Funding Grant Agreement was awarded on January 22nd. Construction NTP is expected Q1 2020. Revenue Service is on schedule for Q4 2024.

ivity Name	Start	Finish								
			2019	2020	2021	2022	2023 Q Q Q Q	2024		
Sound Transit	01-Jul-16A	31-Dec-24	alala		alalala	alalala	alalala	alala		
Sound Transit 2	01-Jul-16 A	31-Dec-24								
South Conidor	01-JUHIEA	31-Dec-24				-				
Federal Way - Master Schedule	01-Jul-16A	31-Dec-24								
Federal Way Link Extension -Integrated Master Schedule	01-Jul-16 A	31-Dec-24			-	-				
Milestones	27-Sep-18A	31-Dec-24								
MS 01 - Baseline Project (Q3 2018)		27-Sep-18 A								
MS 02 - NTP to Design/Build Contractor (Q3 2019)		07-Jun-19 A	•							
MS 03 - ROW Acquisitions Complete (Q1 2020)		08-Jul-20		•						
MS 05 - All Drilled Shafts/Foundations/MSE Walls Complete (Q1 2022)		04-Feb-22	1.	territoria de	Levin de	•	ta more			
MS 04 - 50% Design/Construction Complete (Q4 2021) (*based on contract duration)		09-Aug-22				٠				
MS 06 - Design/Build Contractor - Substantial Completion - (Q4 2023)		30-Jul-23					•			
MS 07 - Revenue Service w/Float (Q4 2024)		31-Dec-24*	1.00							
Preliminary Engineering	01-Jul-16A	28-Dec-19	-							
Third Party Agreements and Permitting	01-Jul-16A	30-Mar-20		-		- sulla - Sula				
Federal Way Link - Design-Build Construction Management Consultant - Contract	14-Nov-16 A	17-May-24	-		-	-		-		
Federal Way Design/Build Contract Procurement	11-Mar-17 A	07-Jun-19 A	7							
Federal Way - Right of Way	10-May-17 A	06-Feb-21			-					
FWLE ROW Acquisitions	10-May-17 A	06-Feb-21								
Federal Way - D/B Construction	07-Jun-19A	16-Apr-24	-					-		
F200 Federal Way Link Extension - Preliminary Baseline (FTA)	07-Jun-19A	16-Apr-24	-					-		
General	07-Jun-19.A	16-Apr-24	-					-		
Design	07-Jun-19 A	20-Jan-23	-			-	v			
Construction	07-Jun-19.A	14-Dec-23	-							
Provisional Sums	30-Jul-23	08-Aug-23		CONTRACT	in the second	Survey and		Association and a		
Federal Way - Rail Activation	07-Jun-19A	31-Dec-24								
Federal Way Link Extension - Rail Activation	07-Jun-19 A	31-Dec-24								
Rail Activation	07-Jun-19 A	31-Dec-24			-	-				
LRV Conditional Acceptance - FWLE	12-Jan-23	05-Dec-23								
Systems Integration & Testing	14-Jul-23	17-Jan-24						·		
Safety and Security Certification	07-Jun-19A	14-Dec-23	-							
Pre-Revenue Service	18-Jan-24	17-Mar-24			1		A.			
Project Float	17-Apr-24	31-Dec-24								
Revenue Service	31-Dec-24	31-Dec-24								



#### **Contingency Management**

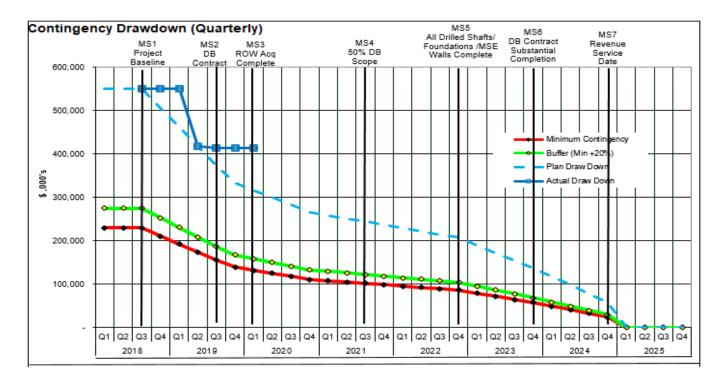
The Federal Way Link Extension project budget was baselined in September 2018 with a total contingency of \$549.9M. The current contingency balance is \$413.6M.

Design Allowance (DA) has been used and no longer reported.

Allocated Contingency (AC) is used to address risks, complexity and unforeseen conditions during the execution of work, including procurement. During this period the AC increased by \$0.8M mostly due to lifetime budget adjustments in third party, PE, and construction phases, and most commitments are in place now.

Unallocated Contingency (UAC) is used to address general project-wide cost risks and uncertainties. During this period the UAC increased due to lifetime budget adjustment in third party phase.

#### Contingency Status (Monthly) Baseline Current Status \$800 % of Total Remaining % of Work Туре \$700 Amount Budget Amount Remaining \$600 Millions \$500 Design \$139.6 5.7% \$0.0 \$139.6 \$0.0 0.0% \$0.0 \$400 Allowance \$300 \$232.2 \$236.7 \$236.7 c Allocated \$232.2 9.5% \$237.3 10.7% \$200 Contingency \$100 \$178.1 \$176.1 \$176.1 Unallocated \$178.1 7.3% \$176.3 8.0% \$0 Contingency BCE Nov-19 Dec-19 Unallocated Contingency Allocated Contingency \$549.9 22.4% \$413.6 18.7% Total: Design Allowance Table figures are shown in millions.



#### Contingency by Type

\$0.0

\$237.3

\$176.3

Jan-20



#### **Community Outreach**

- FFGA Signing Event held at Angle Lake Station on 1/22/2020.
- Communication with property owners regarding FWLE route, profile, station areas, acquisition and relocation is ongoing.
- Conducted outreach to businesses in the project area.
- Extensive planning for the upcoming closure of Star Lake Park and Ride on 3/21/20.

#### **Right-of-Way**

The Right-of-Way effort for this project involves the acquisition of a range of property interests which includes compensable (e.g. fee acquisitions, guideway easements, permanent and temporary construction easements) and non-compensable rights (e.g. rights of entry). These acquisitions will result in owner and tenant residential and commercial relocations. The Right-of-Way Program status for this period is summarized in the following table.

Federal Way Link Extension Property Acquisition Status									
ACQUISITION RELOCATION									
Total Acquisitions	Board Approved	Offers Made to date	Closings to date	Relocations Required Relocations Complete					
256	353	250	224	430	362				

* All numbers are cumulative totals, except where noted. Number of totals may differ from other reports due to the timing of reporting periods.

- Total Acquisitions is defined as only parcels (recognizing only land not owners).
- Board Approved based on parcels and properties (multi-unit acquisitions).
- Relocation numbers are the number of affected individuals.

#### **Staffing Summary**

The planned Full-Time Equivalent (FTE) is an annual projection of ST project staff and consultants. Planned FTE are an annual projection and remains constant from month to month. The Year-to-Date (YTD) Performance is the total actual FTEs accumulated through this reporting period. Staffing status is summarized in the following table.

Overall the project FTE is 6.6 (or 10%) over staffing plan. The main driver is the DBPM consultant is performing over plan by 13.1 FTE (or 46%) as they oversee and react to design activities performed by the Design Build contractor.

Resource Type	Planned FTE Monthly Average	YTD Actual FTE Monthly Average	Variance			
ST Staff	39.8	33.2	6.6			
Consultants	28.7	41.8	-13.1			
TOTAL 68.5 75.0 -6.6						
* An FTE is the equivalent of 2080 hours. YTD performance FTE hours are divided by a monthly factor of 173.33.						

#### **Sound Transit Board Actions**

Board Action	Description	Date
	None this period	



# Phase 3 Preliminary Engineering (PE)

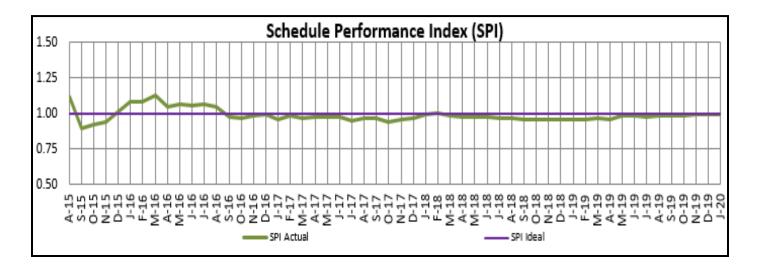
In July 2015, Sound Transit executed an amendment to the professional services agreement with HDR Engineering, Inc. for Phase 3 professional services, including completion of a Final Environmental Impact Statement (FEIS) using the preferred alternative and the other alternatives in the Draft EIS, preliminary engineering of the preferred alternative to Kent/Des Moines and additional engineering as needed to support receipt of environmental approvals. In February 2016, Sound Transit executed an amendment to extend the preliminary engineering effort from Kent/Des Moines to the Federal Way Transit Center.

#### **Current Progress**

- Continued effort to submit Draft 3 of NEPA/SEPA "Additional Information for Project refinements" and revision to critical areas reports.
- Continued follow-up ESA and HBM work and support for property acquisition including ROW drawings, parcel maps, ALTA maps, and TCALs.
- Various coordination works between Sound Transit, the DBPM and the design-builder.

#### **Schedule Performance Index**

The cumulative Schedule Performance Index (SPI) is 0.99 through January 2020, indicating the overall amount of work accomplished is as planned. The consultant (HDR) is fully engaged on coordination efforts with the DBPM consultant, and the designbuilder, Environmental works including NEPA/SEPA, property acquisition support with parcel maps, ALTA maps and TCALs.

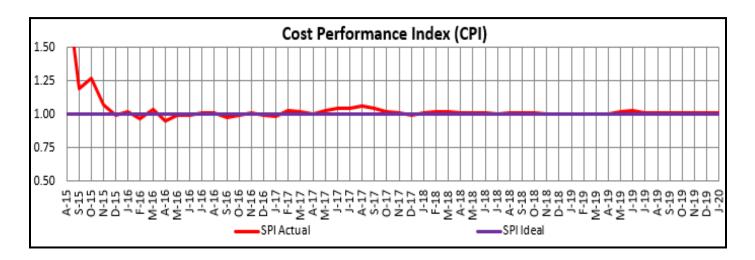


# Link Light Rail Federal Way Link Extension



### **Cost Performance Index**

Phase 3 expenditures through January 2020 totaled \$36.4M, approximately 97.8% of the amended total contract. The Phase 3 percent complete is reported at 99.0%, with an earned value of \$36.8M. The cumulative Cost Performance Index (CPI) is 1.01 showing costs are on track with work accomplished. The Consultant is engaged in coordinating efforts with the DBPM and the design-builder, environmental works, ROW acquisition support, parcel maps, ALTA maps, and TCALs.



#### **Cost Summary**

Contract (Phase 3 portion)	Cumulative To-date
Amount Invoiced	\$36.4M
% Spent	97.8%
Earned Value	\$36.8M
% Complete	99%
SPI	0.99
СРІ	1.01



#### F200 Design Build Contract

#### **Current Progress**

- Continue Design Task Force meetings & Design Pkgs for Seg1(KDM): 60% Drainage and Roadway Site Grade, 90/100% Guideway Grading & Walls, IFC Demo C&G and Early Utilities; Seg2(Star Lake): 60% bridge Structure B; Seg3(Fed Way): 60% Structures D&E and MOT. 90/100% Standard Drawing Walls.
- Load flow Analysis and requirements management plan.
- Geotechnical site investigation work continues.
- Continue early property demolition and 30" Highline waterline replacement work.

#### **Schedule Summary**

LNTP was issued June 7th. The baseline schedule was approved in January. The first progress schedule is under review for January 2020 pay application in February; Construction NTP is expected Q1 2020. Below is a summary schedule from the contractor's accepted baseline schedule.

tivity Name	Start	Finish						
			2019	2020	2021 Q Q2 Q3 Q4	2022	2023	202
Sound Transit	07-Jun-19	18-Apr-24	uz uo u i	allalaolai	alaradat	alarana	alariana	
Sound Transit 2	07-Jun-19	13-4pr-24	-	-		-	-	-
South Cartidor	07-Jun-19	18-Apr-24		-				-
Federal Way - D/B Construction	07-jun-19	18-Apr-24		_			_	-
F200 Federal Way Link Extension - Contract Baseline	07-Jun-19	18-Apr-24	-	-				
Contract Milestones	07-Jun-19	18-Apr-24						Ē
Limited Notice to Proceed	07-Jun-19*		•	G 1 1 1		1.1		
Notice to Proceed	28-Feb-20*			•		12 mil		
MS 1 - Civil Work in WSDOT ROW From S 208th Street to I-5 (Sta. L 2260+00) (VA-2) (01-Mar-22)		01-Mar-22*		(		•		
MS 2 - Civil Work in WSDOT ROW from Start of FWLE to S 208th Street (VA-1) (01-Nov-22)		07-Oct-22*				•		
MS 3 - LRV Early Storage (2,000 feet of Track) (01-Jun-23)		25-Apr-23*					•	
MS 4 - Work in WSDOT ROW from I-5 (Sta. L 2260+00) to S 272nd Street (VA-3) (01-Nov-23)		27-Sep-23*					•	
60-Day Pre-Revenue Operations	20-Jan-24	19-Mar-24	_					
30-Day Sound Transit-Controlled Float	20-Mar-24	18-Apr-24				1.000		L
MS 5 - Acceptance of All Work (19-April-24)		18-Apr-24						
Design	07-Jun-19	20-Jun-23			1			
Design Milestones	07-Jun-19	16-Feb-23			1			
Pre-Construction	07-Jun-19	20-Jun-23						
Corridor Wide	07-Jun-19	16-Apr-21			-	1.00		
Design Packages - Kent Des Moines Segment 1	07-Jun-19	26-Oct-20	-					
Design Packages - Star Lake Segment 2	07-Jun-19	16-Feb-21			-			1
Design Packages - Federal Way Transit Segment 3	07-Jun-19	20-Apr-21	-	-	-			
Construction	07-Jun-19	31-Mar-24	-	_			_	-
Submittals & Engineering	07-Jun-19	16-Dec-23	-	-	-	_	-	1
General	07-Jun-19	31-Mar-24	-					-
Permits	05-Sep-19	27-Dec-20	-					1
Segment 1 Construction [STA 990+10 to 1112+99]	07-Jun-19	18-Dec-23	-	_		-		
Segment 2 Construction [STA 1112+99 to 1227+29]	07-Jun-19	15-Dec-23	-	_		-	_	
Segment 3 Construction [STA 1227+29 to 1401+87]	07-Jun-19	19-Jan-24	-	_			_	
Provisional Sums	23-Aug-23	01-Sep-23						1



#### **Next Period's Activities**

- Continue design pkg & task force meetings: Seg1

   (KDM): 60% Station/Garage/Utilities, 90/100% S
   216th undercrossing; Seg2 (Star Lake): 60% Station/Garage/Utilities/Roadway/Walls, IFC MOT/Demo @SL
   Stn; Seg 3(Fed Way): 60% Guideway Grading&Walls/Roadway, 90/100% FWTC Foundations/Site Grad & Drainage/Utilities
- Continue other early critical submittal activities
- Continue geotechnical borings along alignment
- Continue early building demolition
- Continue 30-inch Highline WD water line relocation

#### **Cost Summary**

Present Financial Status	Amount						
F200 Contractor - Kiewit Infrastructure West Co							
Original Contract Value	\$1,285,200,000						
Change Order Value	\$509,705						
Current Contract Value	\$1,285,709,705						
Total Actual Cost (Incurred to Date)	\$137,518,792						
Percent Complete	13%						
Authorized Contingency	\$128,520,000						
Contingency Drawdown	(\$509,705)						
Contingency Index	32						

#### **Closely Monitored Issues**

- Midway Landfill crossing
- Federal Way Transit Center design changes



# Link Light Rail Federal Way Link Extension

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# Link Light Rail Hilltop Tacoma Link Extension

#### **Project Summary**

#### Scope

*Limits* City of Tacoma

- Alignment The Hilltop Tacoma Link Extension project is a 2.4-mile extension of the existing Tacoma Link system from the Theater District in downtown Tacoma to the Hilltop neighborhood. The extension will travel at-grade along Stadium Way, North 1st Street, Division Avenue, and Martin Luther King Jr. Way.
   Stations Old City Hall S 4th Stadium District
- StationsOld City Hall, S. 4th, Stadium District,<br/>Tacoma General, 6th Avenue, Hilltop Dis-<br/>trict, and St. Joseph.SystemsExpansion of the Operations and Mainte-<br/>Tacoma General St. Statema St. Stat
- nance Facility; The at-grade alignment will include additional signals, OCS, traction power, and communications infrastructure.
   Phase Construction

Budget\$217.3 Million (Baselined September 2017)

Schedule Revenue Service: May 2022



Map of Hilltop Tacoma Link Extension.

# **Key Project Activities**

Final Design: Design consultant continued design services during construction scope including review of construction contractor submittals and responded to requests for information.

#### Construction

- Heading 1: Continued installation of OCS foundations along Stadium Way; continued outbound track slab installation and continued curb/gutter and sidewalk restoration. Installed waterline to S. 4th St. Station.
- Heading 2: Performed underground conduit installation for signals/street lighting at Tacoma Ave./1st St intersection and began four week closure of the intersection for track slab installation.
- Heading 3: Completed backfill of bore pits for storm and sewer at Tacoma General. Continued storm and sewer work from Division St. to Tacoma General. Installed traffic signal and illumination conduit at MLK/15th..
- OMF: Continued mechanical, electrical and plumbing rough-in at interior. Installed structural steel canopies. Continued storm installation south of building and adjacent to Tacoma Trestle.
- General: Staff continue to update Recovery Plan and project Risk Register.

Right-of-Way: Acquisition of all required parcels and temporary construction easements is complete.





#### **Project Cost Summary**

In September 2017, Sound Transit Board adopted the Hilltop Tacoma Link Extension (HTLE) baseline schedule and budget by increasing the authorized project allocation from \$34.6M to \$217.3M. The project cost is summarized below in two cost categories. The first table summarizes costs in accordance with Sound Transit's budget Work Breakdown Structure (WBS). The second table summarizes costs in accordance with the FTA's Standard Cost Categories (SCC) format. The figures in both tables are shown in millions. To date, most of the expenditures have been from Administration, Design, 3rd Party, and ROW.

The T100 construction contract was executed in August 2018. The team went to the ST Board in December 2019 to add contingency to this contract.

In the January 2020 period approximately \$3.8M was incurred. Most expenditures are occurring in the Construction Phase related to the T100 construction contract. ST continues to anticipate majority of expenditures in the construction phase.

#### **Cost Summary by Phase**

Project Phase	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$16.9	\$17.3	\$10.9	\$10.9	\$17.3	\$0.0
Preliminary Engineering	\$5.6	\$5.6	\$5.6	\$5.6	\$5.6	\$0.0
Final Design	\$10.8	\$12.8	\$12.5	\$11.2	\$12.8	\$0.0
Construction Services	\$9.9	\$10.3	\$8.9	\$4.7	\$10.3	\$0.0
3rd Party Agreements	\$1.5	\$1.5	\$1.3	\$1.0	\$1.5	\$0.0
Construction	\$127.2	\$134.5	\$121.3	\$68.1	\$134.5	(\$0.0)
Vehicles	\$35.4	\$33.1	\$30.3	\$3.4	\$33.1	\$0.0
ROW	\$3.6	\$2.3	\$2.2	\$1.9	\$2.3	\$0.0
Contingency	\$6.6	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Total	\$217.3	\$217.3	\$192.9	\$106.7	\$217.3	\$0.0

#### Cost Summary by SCC

SCC Element	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$21.9	\$25.7	\$23.2	\$13.0	\$25.7	(\$0.0)
20 Stations	\$1.8	\$2.9	\$2.6	\$1.5	\$2.9	\$0.0
30 Support Facilities	\$26.6	\$34.2	\$30.8	\$17.3	\$34.2	\$0.0
40 Sitework & Special Conditions	\$40.0	\$43.0	\$38.8	\$21.8	\$43.0	\$0.0
50 Systems	\$25.0	\$28.7	\$25.9	\$14.5	\$28.7	\$0.0
Construction Subtotal (10 - 50)	\$115.4	\$134.52	\$121.3	\$68.1	\$134.5	(\$0.0)
60 Row, Land	\$3.4	\$2.3	\$2.2	\$1.9	\$2.3	(\$0.0)
70 Vehicles (non-revenue)	\$34.1	\$33.1	\$30.3	\$3.4	\$33.1	(\$0.0)
80 Professional Services	\$48.4	\$47.5	\$39.2	\$33.3	\$47.5	(\$0.0)
90 Unallocated Contingency	\$16.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Total (10 - 90)	\$217.3	\$217.3	\$192.9	\$106.7	\$217.3	\$0.0



#### **Risk Management**

The Hilltop Tacoma Link Risk and Contingency Management Plan (RCMP) establishes a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It will provide a tool for the project team to proactively manage risks on the project. It is Sound Transit's responsibility for continuously monitoring project status and associated risks, taking mitigation actions for known risks identified on the risk register, and effectively responding in a timely manner to those risks that pose a significant impact to the project cost or schedule forecast.

The Baseline Risk Assessment was conducted in May 2017 and we conducted a Quantitative Risk Assessment in May 2019. A Recovery Action Workshop was conducted on October 24-25, 2019. An update to the risk model following review of secondary risk mitigations was done and an updated estimate at completion is in progress. The team is implementing the mitigations for the top risks and are being tracked a bi-weekly status updates. Per the December 2019 Register Update the current top project risks include:

- Lack of contractor's approved schedule is creating a series of cascading impacts to the project.
- Roadway improvements and modifications along MLK are greater than anticipated.
- Unidentified utilities under the proposed alignment lead to increased cost and schedule delays for mitigation during construction.
- Redesign of Division St./J/K intersection work leads to schedule delay and higher costs.
- Contractor assumed CoT discretion to relax code requirements regarding material staging in public ROW.
- Work zone constraints due to traffic control considerations and impacts to stakeholder require additional contractor resources due to resequencing activities and materials and equipment handling.



Installation of exterior panels at south side of OMF



#### **Contingency Management**

Hilltop Tacoma Link Extension was baselined on September 2017 with a total contingency of \$33.8M. Since baselining, there were draw downs on AC and UAC to address the Procurement of the Tacoma LRV and T100 Construction contracts, Design Services During Construction contract, and various Change Orders.

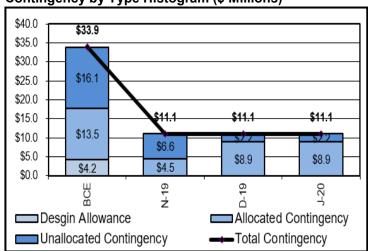
**Design Allowance (DA)** was established to account for unquantified scope at the time of the cost estimate. DA is at \$0M, as a result of completion of Final Design.

Allocated Contingency (AC) is used to address risks, complexity and unforeseen conditions during the execution of work, including procurement. This period the Total AC was increased as a result of the T100 additional Contingency board action. The balance increased to \$8.9M. We anticipate this to decrease as we process more Change Orders for T100.

**Unallocated Contingency (UAC)** is used to address general project-wide cost risks and uncertainties. The UAC balance did change this period with the reallocation of UAC to AC for the T100 contract. The a net balance amount is \$2.2M.

#### **Contingency Status (Monthly)**

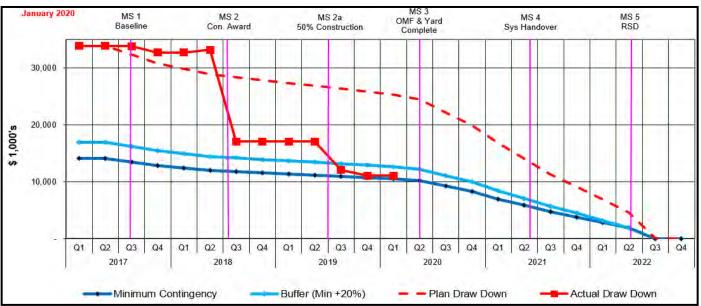
	Base	line	Curr	ent
Туре	Amoun t	% of Total	Amount	% of Work
Design Allowance	\$4.2	2.2%	\$0.0	0.0%
Allocated Contingen- cy	\$13.5	6.8%	\$8.9	8.0%
Unallocated Contingen- cy	\$16.1	8.2%	\$2.2	2.0%
Total	\$33.9	17.2%	\$11.1	10.0%



#### Contingency by Type Histogram (\$ Millions)

Table figures are shown in millions.

#### Contingency Drawdown (Quarterly)



# Link Light Rail Hilltop Tacoma Link Extension



# **Project Schedule**

The Master Schedule has been updated through the end of January 2020. Overall Physical % Complete is 52 %

**LRV**: The LRV procurement contractor is still forecasting that Final Design Review (FDR) completion to be held in 2nd QTR 2020. Forecast delivery of the first car arriving in late 4th QTR 2020 and last car in 2nd QTR 2021. The contractor schedule is still projecting that all cars will be delivered in time to support T100 mainline system integration testing and pre-revenue service startup in 3rd QTR 2021.

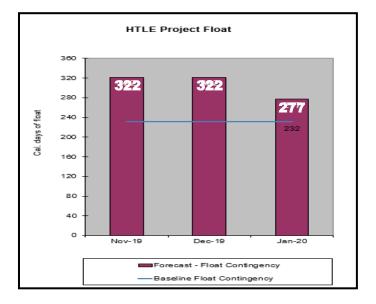
**T100:** Construction Schedule MS#2 Substantial Completion of all work has slipped from September 2021 to December 2021. Contractor submitted a forecast to completion schedule in January that now reflects impacts due design issues and differing site conditions that push the installation of track and could possibly delaying pre- revenue service.

Name	Start	Finish	1.000	A	20	Constant of	1	2	)21		2022	2
the second se	All and		21	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	
lilltop Tacoma Link Expansion - Jan 2020	02-Feb-15 A	23-May-22	122				1	1				-
Project Milestones	28-Sep-17 A	23-May-22								-		-
MS-01 - Project Baseline		28-Sep-17A								6		
MS-02 - Construction Contract Award		27-Aug-18A				š.						
MS-03 - Submit Design & Delivery Schedule for the Automatice Vehicle Locator		21-Nov-18A		1				1				
MS-01 - OMF & Yard Complete (Contractual Date Nov 21 2020)		01-Feb-20	1									
BEC - LRV Deliver Car 1 to ST (Contractual Date Jun 4 2020)		17-Dec-20			2	٠				8		
BEC - LRV Deliver Car 2 to ST (Contractual Date Aug 4 2020)		04-Jan-21					•					
BEC - LRV Deliver Car 3 to ST (Contractual Date Sep 4 2020)		10-Feb-21					٠					
BEC - LRV Deliver Car 4 to ST (Contractual Date Oct 4 2020)		18-Mar-21					٠	1				ļ
BEC - LRV Deliver Car 5 to ST (Contractual Date Nov 4 2020)		23-Apr-21						•				
MS-04 - Systems Handover OMF and Mainline Testing		30-Nov-21								•	20	
MS-02 - Substantial Completion of all work (Contractual Date May 29 2021)		10-Jan-22				5				š l	•	
MS-05 Revenue Service Date		23-May-22*		1		6		1				
Preliminary Engineering	02-Feb-15 A	04-Nov-16 A				1		<u> </u>				
Final Design	04-Jan-16 A	31-May-18 A								3		
ROW & Third Parties	01-Oct-15A	01-Dec-20				-				A CAY		
Owner Furnished Materials / Equipment Procurement	11-Oct-16A	26-Nov-21						-		-	1.00	
Construction	23-Jan-18A	09-Feb-22	-								-	
Construction Contract Procurement	23-Jan-18A	27-Jul-18 A	1.1				1.11	1			land a state	
T100 Contract - Jan 2020	29-Jun-18A	09-Feb-22										
Testing/Startup/Commissioning	17-Dec-20	16-Jun-21	1.1							4334.6	2.2	
Safety & Security Certification	02-Feb-15 A	06-Mar-22	-				-	1				
Pre-Revenue Testing	26-Nov-21	10-Jan-22								-	-	
Revenue Service	10-Jan-22	23-May-22									-	1
Project Roat - Projected Remaining Roat	10-Jan-22	22-May-22						·····				
Revenue Service Begins (BL Date May 23, 2022)		23-May-22*								ŝ		

#### **Project Float**

Hilltop Tacoma Link Extension was baselined with 232 days of project float. Forecast Float has been reduced from 322 to 277 in order to achieve Revenue Service on May 23, 2022.

RFC #148/ CO #37 was approved and awaiting signature for a 45 day time extension due to differing site conditions and design issues and is reflected in the current project float drawdown.





#### **Critical Path Analysis**

The analysis for January 2020 shows dual critical paths. The first critical path runs through the T100 contract with the completion of wet utilities in Heading 1, 2B and 3. Followed by installation of inbound/outbound track for each of the headings. The second critical path is the completing the final design review in 2nd QTR 2020 through the deliveries of the LRVs to the OMF, and completing the burn in testing of all 5 cars required for overall systems testing before pre-revenue service runs.

vity Name	Start	Finish	2020				2021				2022				2023	
		-	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	1	
BEC Monthly Submittal - Jan 2020	22-Apr-19 A	04-Jun-21			1	7. = (	11	-							T	
Engineering - Tacoma	22-Apr-19 A	28-Jul-20							ŀ							
CDRL Submittals - Tacoma	06-Feb-20	06-May-20		-												
MANUFACTURING / TESTING	13-May-20	04-Jun-21		-		-		-								
First Article Inspections	11-Aug-20	19-Aug-20			T											
Car 1 - S/N 18000 - Job 7832	13-May-20	17-Dec-20	t i i	1				1	1	1			1	1	1	
Car 2 - S/N 18001 - Job 7833	08-Jul-20	13-Aug-20							1	l l			<b>1</b> 1			
Car 3 - S/N 18002 - Job 7834	13-Aug-20	21-Sep-20	ļ		1	<u> </u>		1	l .	i				į –		
Car 4 - S/N 18003 - Job 7835	21-Sep-20	27-Oct-20			1	w.							8 9			
Car 5 - SN 18004 - Job 7836	27-Oct-20	04-Jun-21				-		-								
Hilltop Tacoma Link Expansion - Jan 2020	11-Jul-19A	31-Aug-22			1	1							-		1	
Construction	11-Jul-19A	10-Jan-22	-		-	-										
T100 Contract - Jan 2020	11-Jul-19 A	10-Jan-22		-	<u> </u>			-	1	1			1	1		
Milestones	10-Jan-22	10-Jan-22			1				1				1	1		
Heading 1: 7th & Commerce to Stadium Way & Division	09-Nov-20	26-Apr-21				-		-								
Heading 3: Division St and MLK to MLK & 19th	11-Jul-19 A	06-Nov-20				-		1	1						T	
OCS Wire Runs	27-Apr-21	13-Oct-21						-								
Job Wide ITS	14-Oct-21	10-Jan-22				2				-	7					
OMF Facility	07-Feb-20	29-Jul-20			1											
Pre-Revenue Testing	26-Nov-21	10-Jan-22			i.e.u.	l	. mb		1				1. 1			
Simulated Revenue Service	26-Nov-21	10-Jan-22			1	1									T	
Revenue Service	10-Jan-22	31-Aug-22									-					
Project Float - Baseline Project Float Revenue Service Begins (BL Date May 23,2022)	10-Jan-22	31-Aug-22 23-May-22*										•				

# **Right-of-Way**

The Hilltop Tacoma Link Operations and Maintenance Facility will expand to the east and five new vehicles will be purchased. The Right-of -Way effort for this project involved the acquisition of a range of property interests which includes compensable (e.g. fee acquisitions, guideway easements, permanent and temporary construction easements) and non-compensable rights (e.g. rights of entry). These acquisitions resulted in owner and tenant residential and commercial relocations. The following table summarizes the Right-of-Way program status for this period. All project property acquisitions are complete.

Tacoma Link Extension Property Acquisition Status								
ACQUISITION RELOCATION								
Total Acquisitions	Board Approved	Offers Made to date	Closings to date	Relocations Required	Relocations Completed to date			
20	20	20	20	1	1			
20       20       20       20       1         * All numbers are cumulative totals, except where noted. Number of totals may differ from other reports due to the timing of reporting periods.								



#### **Community Outreach**

- Produced and distributed notification about the N. Tacoma Ave/N. 1st St. intersection closure for track installation. Met one -on-one with Stadium businesses. Informed the Washington Trucking Association about the truck detour route.
- Provided information about the Tacoma Ave/N 1st St intersection closure for the Stadium HS principal's phone call to parents. Created a flyer to notify parents of the work and access to the school. Coordinated with Stadium businesses to create a flyer for customers.
- Attended a meeting with Sound Transit's CEO, Stadium Thriftway, and City of Tacoma to discuss business loss and upcoming construction on N. 1st St., Jan 21. Followed up on questions regarding the schedule.
- Visited businesses in the Tacoma Ave./N. 1st St. intersection area regularly during track installation.
- Met with MultiCare to continue planning the utility work on the west side of MLK Jr. Way from Division Ave to S. 3rd St., Jan 17. Provided more custom signs so MultiCare could direct patients during the Jackson Hall parking garage closure. Informed MultiCare that the contractor finished the work early.
- Notified Hilltop businesses and residents about track installation starting on MLK Jr. Way during the week of Jan 27, and provided notification about the Division Avenue & K St. intersection closure on the weekend of Feb 1 & 2.
- Gave a project update at the Hilltop Business Association's meeting (Jan 16), Hilltop Action Coalition's monthly meeting (Jan 27), and Stadium Business District's quarterly meeting (Jan 29).
- Met with Centro Latino to discuss the HTLE project and ways we might work together to share information with the Pierce County Hispanic community, Jan 31.
- Produced and distributed weekly construction alerts about traffic impacts.
- Responded to complaints about potholes in the Division Ave and MLK Jr. Way intersection.

#### **Staffing Summary**

The planned Full-Time Equivalent (FTE) is an annual projection of ST project staff and consultants. Planned FTE are an annual projection and remains constant from month to month. The Year-to-Date (YTD) Performance is the total actual FTEs accumulated through this reporting period. Staffing status is summarized in the following table.

ST staff variance reflects shared design and engineering SME resources across multiple ST projects including South Corridor and Vehicles.

Resource Type	Planned FTE Monthly Average	YTD Actual FTE Monthly Average	Variance				
ST Staff	23.6	20.3	(3.3)				
Consultants	19.7	19.2	(0.5)				
TOTAL	43.3	39.5	(3.8)				
* An FTE is the equivalent of 2080 hours. YTD performance FTE hours are divided by a monthly factor of 173.33.							



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#### **Sound Transit Board Actions**

Board Action	Description	Date
	None to report.	

#### **Construction Safety**

Data/ Measure	January 2020	Year to Date	Project to Date	
Recordable Injury/Illness Cases	1	1	4	
Days Away From Work Cases	0	0	0	
Total Days Away From Work	0	0	0	
First Aid Cases	0	0	8	
Reported Near Mishaps	1	1	16	
Average Number of Employees on Worksite	173	173	-	
Total # of Hours (GC & Subs)	13,011	13,011	151,685	
OSHA Incident Rates	Monthly Average	Year to Date	Project to Date	
Recordable Injury Rate	15.37	15.37	5.27	
Lost Time Injury (LTI) Rate	0.00	0.00	0.00	
Recordable National Average		3.00		
LTI National Average		1.20		
Recordable WA State Average		6.00		
LTI WA State Average		1.90		

Note: Due to the timing of contractor's reporting periods, the current month's numbers above are a combination of actuals and estimates. All previous months' numbers are reconciled and replaced with actuals.



#### Contract T100 — Hilltop Tacoma Link Extension

#### **Current Progress**

The T100 Contractor, Walsh Construction Company II, LLC, is continuing work outside the OMF and Mainline work at grade.

- Heading 1: Continuing outbound track slab and rail installation; started work outbound curb, gutter and pole foundations.
- Heading 2B: Continuing storm and water utility work; installed electrical raceways for traffic signal and illumination conduit at Tacoma & 1st Ave. Installed Systems Duct bank and started track installation.
- Heading 3: Completed weekend storm work at MLK/Division and crossing Multicare garage driveway. Completed storm crossing at MLK and 14th St. Performed traffic signal and illumination conduit installation at MLK/15th and MLK/18th St.
- OMF: Continued rough-in MEP at interior; installed steel canopies at exterior and continued storm work at south building elevator. Installed metal roof panels, completed storm work on site near J St., Plumbing and electrical rough-in on the mezzanine and 2nd floor.

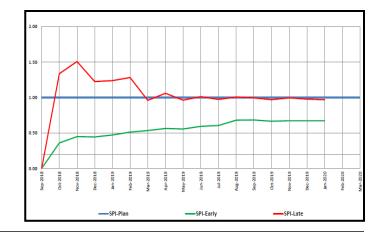
# Schedule Summary

The schedule update for January 2020 is based on the project completion schedule that was submitted on January 15, 2020 and was approved by ST. Contractor is projecting that MS#2 Substantial completion of all work will be complete in early Jan 2022, but contractor is continuing to refine the track installation work sequence and systems integration portion of the schedule to further improve the MS #2 Substantial Completion of All Work forecast date of Jan 2022.

Activity Name	Start	tart Finish 2020 2021			21	2022				
			21	02	Q3	Q4	Q1	02	Q3 Q	4 Q1 2
T100 Revised BL Jan 2020 Update	29-Jun-18 A	11-Jan-22								7
Tacoma Links Baseline Schedule	29-Jun-18 A	11-Jan-22	E						_	+
Miestones	29-Jun-18 A	11-Jan-22	E		÷		-	-		<b>-</b> 1
J do Milestones	29-Jun-18 A	11-Jan-22			:	-		-	-	<b>-</b> 1
Contractual Milestones	21-Nov-18 A	10-Jan-22				. i				
Contr. MILESTONE 3: Submit and Design of and Delivery Schedule for A/L (NTP+90 = 11/25/18)		21-Nov-18 A			1					
Contr. MILESTONE 1: Substantial Completion of OMF & Yard (NTP + 817 = 11/28/20)		09-Feb-21*			1		•	-		
Contr. MILESTONE 2: Substantial Completion of All Work(NTP + 1005 = 6/5/21)		10-Jan-22*		1	1	1	1			•
PreConstruction	09-Aug-18 A	24-Jul-21							•	
Heading 1: 7th & Commerce to Stadium Way & Division	15-Oct-18A	16-Jul-21							<b>r</b> :	
Heading 2: Stadium Way & Division to Division St and MLK	23-Oct-18A	09-Apr-21				-		<b>7</b>		
Heading 3: Division St and MLK to MLK & 19th	15-Oct-18A	29-Jun-21				-		-		
OCS Wire Runs	09-Nov-20	13-Oct-21				÷ 💳	+ :			
Train Signal System	02-Oct-20	09-Apr-21			1	÷—		r i		
Job Wide ITS	12-Jan-21	10-Jan-22								<b>-</b>
OMF Facility	29-Aug-18 A	01-Feb-21								
Change Orders	07-Jan-19 A	29-Apr-20	H	÷.	1					
Provisional Sum Time Impacts	01-Feb-19 A	12-Aug-20	H		÷					
Other Time Impacts	25-Mar-19 A	22-Feb-21	H		÷	÷ –				
RFCs	29-Jan-19 A	02-Apr-21	H	-	<u>;</u>		;	r i		
Provisional Sums	03-Dec-18 A	26-Jul-21	<u> </u>						<b>T</b>	· · · · · · · · ·
Weather Days	04-Feb-19 A	01-Mar-19 A								

#### Schedule Performance Index

This period, the SPI-early stayed the same at .67 and the SPIlate slightly decreased to .97. The early index indicates that the contractor continues to perform behind the plan when compared to the baseline schedule. Based on the current trends there is a high likelihood of schedule impacts to the current T100 contract milestones.





#### **Next Period's Activities**

- Heading 1– Continue storm and sewer utility work, complete water utility work at Pacific Ave. Complete excavation of TPSS 1. Continue outbound track slab installation and begin curb, gutters and sidewalk workion.
- Heading 2B Continue Outbound and In Bound track slab installation and rail installation. Complete storm and water utility work at J St
- Heading 3– Start Outbound track slab and track installation. Start installation of raceways for electrical illumination. Complete water utility work and water service Tie-Ins with the City of Tacoma.
- OMF: Complete sewer and storm work at East 25th Ave/ East J St. Install electrical raceways for OMF Storage Track. Demo and relocate existing utilities on OMF West Wall . Continue MEP rough-in at interior bldg.

#### **Closely Monitored Issues**

- The third party utility relocations (Tacoma Public Utility, CenturyLink and PSE) appear to have minimal impact on the contract schedule. ST construction management continue to monitor for potential cost and schedule impacts.
- Notifications to the community of upcoming construction activities are ongoing. Business mitigation efforts are underway to support businesses impacted by construction activities. Community Outreach staff are managing this effort with the support of the contractor, City of Tacoma and ST field staff.
- Work at 9th and Commerce requires a planning workshop which will be held in January 2020. Participants will include ST (including Operations), City of Tacoma and the contractor.

# **Cost Summary**

Present Financial Status	Amount							
T100 Contractor— Walsh Construction Company								
Original Contract Value	\$	108,295,000						
Change Order Value	\$	4,486,776						
Current Contract Value	\$	112,781,776						
Total Actual Cost (Incurred to Date)	\$	62,565,052						
Percent Complete		52%						
Authorized Contingency	\$	9,714,750						
Contingency Drawdown	\$	4,486,776						
Contingency Index		1.1						



Floor Slab Preparation—OMF



#### Contract RTA/RP 0014-16 — Tacoma Link Light Rail Vehicle (LRV) Procurement

#### **Current Progress**

The Brookville Monthly Schedule Submittal is updated as of January 31, 2020.

- Continuing on phase 2 system integration design and phase 3 system design and models.
- Holding internal design reviews for propulsion, communications, HVAC System and Electrical arrangement.
- Reworking and resubmittal of CDRLS listed under: Sections 2–16 and Section 19.

#### **Schedule Summary**

The January 2020 schedule update indicates Brookville on target to complete Final Design Review (FDR) in May 2020. FDR forecasted completion falls ahead of building the end base of the car in the Fab Shop and Cut Shop. All First Article Inspections to be complete by October 2020.

Current Forecast indicates the shipping and delivery of the 1st car arriving to OMF in Tacoma will begin in December 2020. Approximately six weeks later the 2nd car will arrive in January 2021. Car 3 arriving in February 2021, car 4 arriving in March 2021 and the final car 5 in April 2021.

Onsite Testing for the 1st car will begin in late January 2021 and complete in June 2021. Contractor schedule is projecting all cars will still be delivered in time to support mainline system integration testing and pre-revenue service startup in 3rd QTR 2021.

ctivity Name Start	Finish			2020				20	202.2					
		24	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	02	Q3	
Sound Transit BEC Monthly Submittal - Jan 2020	04 Dec-17 A	14-Jan-22			:	:	:		:	:	:	•		
TacomaNTP	04 Dec-17 A													
Portlan d NTP	31-May-18 A													
Kick Off/Schedule Creation	17- Apr-19 A	17-Apr-19A												
Engineering - Tacoma	04 Dec-17 A	14-Jan-22										•		
Engineering - Portland	22-Apr-19A	01-Dec-20	_											1
CDRL Submittals - Tacoma	01-Jan-18A	16-Nov-20	E											
CDRL Submittals - Portland	11-Mar-19A	15-Apr-20	E											
Ordering of Subsystems and Components	01-Nov-19	24-Feb-20	E-	-										
MANUFACTURING / TESTING	17-Dec-18 A	10-Sep-21				:	:			-				
Component/System Type Tests	17-Dec-18 A	08-Jul-20				7		1					1	1
FirstArticle Inspections	14-Nov-19	02-Oct-20	<b>-</b>			:	Ý.							
Car 1 - S/N 18000 - Job 7832	06-May-20	09-Feb-21			-			-						1
Car 2 - S/N 18001 - Job 7833	01-Nov-19	17-Feb-21	E					-						
Car 3 - S/N 18002 - Job 7834	23-Jul-20	05-Apr-21				-	:		÷.					
Car 4 - SN 18003 - Job 7835	20-Aug-20	27-Apr-21	· · · ·			-			-		-	[	i.	Ţ
Car 5 - S/N 18004 - Job 7836	17-Sep-20	02-Jun-21				1			-					
Portland - Job 7285	15-Oct-20	10-Sep-21					-			-				
SOUND TRANSIT PAYMENT MILESTONES	02-Jul-18A	06-Oct-21												
PORTLAND PAYMENT MILESTONES	01-Nov-19	14-Jan-22	E									-		
Brookville Contract Milestones	01-Nov-19	14-Jan-22		·		:	; :		:	:	; :	7		

# Link Light Rail Tacoma Dome Link Extension

#### **Project Summary**

#### Scope

Limits	Federal Way Transit Center to South Fed- eral Way, Fife, East Tacoma, and Tacoma Dome
Alignment	The Tacoma Dome Link Extension ex- pands light rail 9.7 miles from the Federal Way Transit Center to Tacoma. The repre- sentative alignment travels adjacent to I-5 with four stations.
Stations	South Federal Way, Fife, and East Tacoma (elevated stations) and Tacoma Dome (at-grade station)
Systems	Signals, traction power, communications (SCADA), Operations and Maintenance Facility South (OMF South)
Phase	Planning: Alternative Development
Budget	\$125.7 Million for Preliminary Engineering Phase 1—Alternative Development
Schedule	Revenue Service: December 2030



SoundTransit

Map of Tacoma Dome Link Extension.

# **Key Project Activities**

- Advanced the footprints for the OMF South and presented to City of Kent, City of Federal Way and City of Seattle.
- Continued developing non-motorized integration workshops with the AHJs.
- Thirty-five borings have been identified for environmental clearance, for which workplans will be developed for the purpose of securing permits.
- Held meetings with the cities of Fife, Milton, Federal Way, and Tacoma.



## **Project Cost Summary**

The Tacoma Dome Link Extension and OMF South project cost is summarized below in two cost categories. The first table summarizes costs in accordance with Sound Transit's budget Work Breakdown Structure (WBS). The second table summarizes costs in accordance with the FTA's Standard Cost Categories (SCC) format. The figures in both tables are shown in millions.

Project cost and monthly expenditures are trending lower than planned monthly budget but the current forecast is on track for completing this phase within the authorized budgeted amount.

#### **Cost Summary by Phase**

Project Phase	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$26.8	\$6.5	\$6.2	\$26.8	\$0.0
Preliminary Engineering	\$87.1	\$47.3	\$15.8	\$87.1	\$0.0
Final Design	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Services	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
3rd Party Agreements	\$5.8	\$1.4	\$0.3	\$5.8	\$0.0
Construction	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$6.0	\$0.4	\$0.0	\$6.0	\$0.0
Total	\$125.7	\$55.6	\$22.3	\$125.7	\$0.0

#### **Cost Summary by SCC**

SCC Element	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
20 Stations	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
30 Support Facilities	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
40 Sitework & Special Conditions	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
50 Systems	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Subtotal (10 - 50)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
60 Row, Land	\$5.0	\$0.4	\$0.0	\$5.0	\$0.0
80 Professional Services	\$110.9	\$55.2	\$22.3	\$110.9	\$0.0
90 Unallocated Contingency	\$9.8	\$0.0	\$0.0	\$9.8	\$0.0
Total (10 - 90)	\$125.7	\$55.6	\$22.3	\$125.7	\$0.0



#### **Risk Management**

The Tacoma Dome Link Extension and OMF South Risk and Contingency Management Plan (RCMP) will establish a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It will provide a tool for the project team to proactively manage risks on the project. It is Sound Transit's responsibility for continuously monitoring project status and associated risks, taking mitigation actions for known risks identified on the risk register, and effectively responding in a timely manner to those risks that pose a significant impact to the project cost or schedule forecast.

The 4th QTR 2019 risk review workshop was held in December-2019. The following are the top project wide risks:

- Preferred alignment cost is greater than the ST3 budgeted project cost may cause the project to delay.
- OMF South cost is greater than the ST3 budgeted project cost may cause the project to delay.
- Puyallup Tribe may take longer than planned to provide cultural resources and/or fisheries, stormwater mitigation approvals.
- OMF South can not be built in time for ST3 vehicle schedule.
- Other earlier-programmed ST projects are experiencing baseline cost escalation, resulting in insufficient funding available for TDLE and OMF S.
- Lack of federal funding for public transit projects could delay the project.
- ST funding authorization reduced by voters or legislation may result in insufficient local funds.
- Contaminated soil and/or groundwater are discovered during TDLE and OMFS construction, resulting in increased costs.

#### **TDLE Project Schedule**

Below is the HDR consultant detailed schedule as of January 31, 2020. The schedule indicates the Draft EIS publication completion in 1st QTR 2021 with ST Board Confirms/Revises Preferred Alternative in 2nd QTR 2021. Final EIS publication shows completion in 2nd QTR 2022. FTA issuance of the Record of Decision expected in 3rd QTR 2022. Revenue Service is targeted for December 31, 2030.

Adivity Name	Start	Finish	2020	2021	2022	2023	202.4	2025	2026	2027	2028	2029	2030	2031	2032
			aaaa	adaa	aaaa		adada	aaaa	aaaa	adaa	daalaa	aaaa	aaaa	adaa	ad
Tacoma Dome Link Extension - Jan 2020	12-Dec-17A	31-Dec-30												<b>'</b>	
Key Milestones	25-Jul-19A	31-Dec-30												' i i i	
TDLE - ST Board identifies DEISA ternatives		25-Jul-19A													
TDLE Phasegate #2 Meeting (TBD)		10-Nov-20													
TDLE - Publish DraftEIS		16-Mar-21	44.44.4	1.		4444				44.44					
TDLE - Board Action on Preferre dAternative		28-Jun-21													
TDLE - ST Board Selects Projectto be built		28-Jul-22			•										
TDLE - FTA Issues Record of Decision (ROD)		30-Sep-22			<b>†</b>										
TDLE - Revenue Service (December 31, 2030)	40.0 47.4	31-Dec-30*											1111	111	
TDLE and OMF South Alternative Analysis - (Phase I)	12-Dec-17 A	05-Jan-18A													
Conceptual Engineering - (Phase II)	05-Aug-19 A	24-Jun-21	111											111	
Preliminary Engineering - (Phase III)	24-Jun-21	30-Jun-22		-											
ROW	10-Aug-23	20-Oct-26													
Final Design	03-Oct-22	09-Jan-26			- I I <del>T</del>				7						
Final Design Procurem ent	03-Oct-22	20-Jul-23			🕈	<del></del> .									
Final Design	21-Jul-23	09-Jan-26				-			7						
Ta coma Dome Link Extension DBB	27-Sep-26	31-Dec-30							117					111	
Construction Procurement	27-Sep-26	27-Sep-26							1 I I 🕈						
Construction	21-Oct-26	25-Nov-29													
PostConstruction	26-Nov-29	31-Dec-30										•		1	
System Integration Testing	26-Nov-29	25-Mar-30				1111		1111	1111	tiii		Ţ	<b>-</b>	111	111
Project Float	26-Mar-30	31-Dec-30	1: : : :										<b>T</b>	111	
Revenue Service	31-Dec-30	31-Dec-30												111	



#### **OMF South Project Schedule**

Below is the summary schedule as of January 31, 2020. The schedule indicates OMF South is in the Conceptual Engineering phase now and Final SEPA EIS with NEPA DCE will be published in 3rd QTR 2021. ST Board Selects Project to be Built late 4th QTR 2021. The milestone, Substantial Completion of the OMF South and Yard, is targeted for December 2026 to receive the ST3 Light Rail Vehicle cars and perform burn-in testing to support TDLE Revenue Service in December 31, 2030.

Adivity Name	Start	Finish		20	202		202.2	20		202		202		2026		027
				aa	aa	aa	aaa	aaa	aa	aa	aa	aa	aa	aaa	aac	<u>100</u>
OMF South - NEPA/ SEPA DCE Jan 2020	02-Apr-19A	13-Jul-27														7
Key Milestones	17-Dec-20	26-Jan-27														
OMF S - Board Selects Preferred Altern ative		17-Dec-20 08-Oct-21		•												
OMF S - Final SEPA Final EIS with NEPA DCE Issued OMF S - ST Board Selects Project to be Built		28-0ct-21	-11 :			1						11				
TDLE - FTA Issues Record of Decision (ROD)		21-Sep-22*		l tr		- 1	•	1		·· † †			-+-		-+-+-	111
OMF South - MS #1 Sub stantial Completion of OMF South and Yard		26-Jan-27*													•	
Alternative Analysis - (Phase I)	02-Apr-19A	03-Jul-19A														
Conceptual Engineering - (Phase II)	03-Jul-19A	28-Dec-20			11											
Project Management	23-J an-20	17-Dec-20														
Conceptual Engineering	03-J ul-19 A	28-Dec-20														
Draft EIS	21-Aug-19 A	22-Jun-20		†												
Preliminary Engineering - (Phase III)	31-Dec-19	29-Nov-21				÷										
Project Management	28-0ct-21	29-Nov-21					111			11		11		111		
Pre limina ry Engin œ ring	31-Dec-19	08-Mar-21		j. j												
Final EIS	23-J un-20	08-Oct-21			: :	-										
ROW	18-Dec-20	22-Nov-22														
OMF South DB	28-0ct-21	13-Jul-27														7
ROW (Phase IV)	28-0ct-21	28-Jun-24								<u> </u>	1					
Design Build Contract	23-J un-23	20-Aug-26					111				-					111
System Integration Te sting	21-Aug-26	26-Jan-27											11			
PostConstruction	27-J an-27	13-Jul-27														7
Project Float	27-J an-27	13-Jul-27													-	7
OMF South - Project Float (Schedule Contingency)	27-J an-27	13-Jul-27													- I÷	• :
Revenue Service	13-J ul-27	13-Jul-27														<u>7</u>
OMF South - In Service Date		13-Jul-27		: : ]		1							1			•

## **Critical Path Analysis**

The critical path for the overall TDLE program continues to run through OMF South portion of the project. OMF South must complete conceptual engineering and environmental to produce the Draft EIS. The critical path then continues through the project life cycle of conceptual, preliminary design, final design, permitting, Right-of-Way acquisition, and construction to meet a target substantial completion of December 2026.

Project team reviewing for the best project procurement method to be used in order to meet the substantial completion target 2026.

Adivity Name	Sart	Finish		2020	- 1		<b>I</b> 21		2022	1	202		7	24		2025		2026		2027
Prany name	aan	HINST	4 Q1	-	8 Q4	or la	2 03 0	xi Q1	02 02		1 02 0	, 33 Q4	01 02	08 0	4 01 (	2030	a a l	2 03 0	4 Q1	<u>a</u> a a
OMF South - NEPA/SEPA DCE Dec 2019	03-Jul-19 A	17-Jun-27		-																╡
Key Mile stone s	28-Oct-21	31-Dec-26							-	1	1 1	-				1 1			+	
OMF S - ST Board Selects Project to be Built (Inclapproval for NTP to DBPM, RFP CO to HDR, start procurement for DB)		28-Oct-21	18				•													
OMF South - MS #1 Substantial Completion of OMF South and Yard		31-Dec-28*																	+	
Conceptual Engineering - (Phase II)	03-Jul-19 A	17-Dec-20																		
Project Management	05-Nov-20	17-Dec-20			-		11		1		11									
OM FS - Prepare for Gate 2: Select Delivery Method	05-Nov-20	19-Nov-20																		
OM FS - Phasegate #2 Meeting		17-Dec-20*			•															
OM FS - Board Selects Preferred Aternative		17-Dec-20			•															
Conceptual Engineering	03-Jul-19 A	04-Nov-20		. <u>i.</u>			<u></u>			<u>.                                    </u>			<u></u>	<u></u>						<u>i.i</u> .
CE Plan Submitta (10%)	03-Jul-19 A	08-Jul-20																		
OMF S - Faoity Programming Requirements OMF S - CE Plan QC-QA	03-Jul-19 A 02-Dec-19	27-Nov-19 24-Mar-20	·													11				
OMFS-CE Pan Co-CA OMFS-Submit Draft CE Plan for ST Review	25-Mar-20	24-Mar-20 31-Mar-20	• T -				11											11		
OMF S - Submit Dialt CE rian Iol ST Review OMF S - Submit Final CE (10%) Plan	20-mar-20 01-Apr-20	08-Jul-20	- 1 1				11									11				
ACEPan submit tal (20%)	07-Jul-20	04-Nov-20					÷÷		·	terte	÷÷			i i i	÷	<del>†</del>				
OMF S - ACE Submittal (20%) Plan	07-Jul-20	06-Oct-20		- j_			11									11		11		
OMF S - ACE (20%) Plan QC-QA	07-Oct-20	04-Nov-20																		
OMF S - Submit Draft ACE (20%) Plan for ST Review		04-Nov-20					11			1	11					11		11		
Preliminary Engineering - (Phase III)	11-Jan-21	28-Oct-21			1	-	17	'								11		11		
Preliminary Engineering	28-Oct-21	28-Oct-21		1	1	1			1		11	1				11				11
Final EIS	11-Jan-21	27-Sep-21			1	-	ψ <b>π</b> ή									11				
OMF South DB	30-May-23	17-Jun-27									-	-						-		-
Design Build Contract	30-May-23	27-Jul-28									-	+				<u> </u>		<b>-</b>		
System Integration Testing	28-Jul-26	31-Dec-26								1								1	•	
Post Construction	01 -Jan -27	17-Jun-27		1	1		ΤŤ		Ť	1	ŤŤ	1		ΠÌ	11	Ť			-	-



#### **Community Outreach**

- TDLE Provided briefing to Poulsbo RV (1/8)
- TDLE Attended monthly Dome District meeting (1/9)
- TDLE Provided briefing to Harsch Investment Properties (1/10)
- OMFS Conducted field visits to Federal Way businesses and residents (1/24, 1/27, 1/28)
- OMFS Conducted field visits to Kent businesses and residents (1/29)

#### **Staffing Summary**

The planned Full-Time Equivalent (FTE) is an annual projection of ST project staff and consultants. Planned FTE are an annual projection and remains constant from month to month. The Year-to-Date (YTD) Performance is the total actual FTEs accumulated through this reporting period. Staffing status is summarized in the following table.

Project has planned 81.3 average FTEs per month for the year 2020. Although there is a variance on ST staff and consultants planned vs. actual staffing, Total YTD actual FTE is close to the plan. For the month of January there were higher efforts spent by consultants to produce phase 2 deliverables of TDLE and OMFS for ST staff to review later in 2020.

Resource Type	Planned FTE Monthly Average	YTD Actual FTE Monthly Average	Variance				
ST Staff	32.6	18.0	(14.6)				
Consultants	48.7	61.9	13.2				
TOTAL	81.3	79.9	(1.4)				
* An FTE is the equivalent of 2080 hours. YTD performance FTE hours are divided by a monthly factor of 173.33.							

#### **Sound Transit Board Actions**

Board Action	Description	Date
	None to report.	



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# Link Light Rail Link Operations & Maintenance Facility: East



#### **Project Summary**

Scope The Link Operations and Maintenance Facility: East (OMF East) project, located in the City of Bellevue, includes a 160,000 sq. ft. operations and maintenance facility that will maintain, store and deploy and expanded light rail fleet, including seven LRV service bays, a LRV wash facility and storage for up to 96 LRVs.
 Phase Proceed to Construction
 Budget \$449.2 Million (Baselined July 2016)
 Schedule Project Completion: December 2020



Map of OMF East Site

# **Key Project Activities**

- OMF East continued metal panel installation and began setting ribbon windows.
- OMF East building, framing and mechanical/electrical/plumbing/fire sprinkler (MEPF) overhead and in wall rough-ins continue at Levels 1 and 2, including on the high bay area of the shop.
- Maintenance of Way (MOW) mechanical/electrical/plumbing/fire sprinkler (MEPF) overhead and wall rough-ins was ongoing, began high performance paint and prime ceiling.
- Skeletonizing of track at the south and north storage fan, and completed embedded track work at the buildings.
- Signals and communications, switch machines and crib and rail heaters were installed for the north storage fan, south fan, storage tracks, and north runaround.

## **Closely Monitored Issues**

- Monitoring commissioning and testing in support of project transition to Operations.
- Late design changes to the Type 2 LRVs (Siemens) that may impact the OMF East LRV interfaces.
- Late design changes by PSE could impact timely availability of power to the site.



## **Project Cost Summary**

The Baseline Budget (July 2016) for the OMF East is \$449.2M. The OMF East cost is summarized into two cost tables. The first table is in accordance with Sound Transit's Work Breakdown Structure (WBS) displaying the cost summary by phase. The second table summarizes project cost by SCC, in accordance to the FTA Standard Cost Categories (SCC) format. Both tables show figures in millions.

The Estimated Final Costs (EFC) continues to be projected at approximately \$449.2M. This period's expenditure of about \$8.8M. The total project cost incurred increased from \$282.1 to \$290.9M. The primary cost drivers during this period on the OMF East project comes from the design build (construction) phase at \$8M or roughly 91% of the total monthly expenditures. The next cost driver this period pertains to Construction Services expenditures at about \$450K.

Project Phase	Baseline Budget	Authorized Project Allocation	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$17.6	\$17.6	\$6.6	\$6.7	\$17.6	\$0.0
Preliminary Engineering	\$9.5	\$9.5	\$9.0	\$8.7	\$9.5	\$0.0
Final Design	\$0.4	\$0.4	\$0.0	\$0.0	\$0.4	\$0.0
Construction Services	\$19.3	\$19.3	\$17.5	\$10.2	\$19.3	\$0.0
3rd Party Agreements	\$3.1	\$3.1	\$0.3	\$0.1	\$3.1	\$0.0
Construction	\$264.8	\$264.8	\$225.5	\$162.7	\$264.8	\$0.0
ROW	\$134.5	\$134.5	\$102.7	\$102.5	\$134.5	\$0.0
Total	\$449.2	\$449.2	\$361.7	\$290.9	\$449.2	\$0.0

#### **Cost Summary by Phase**

#### Cost Summary by SCC

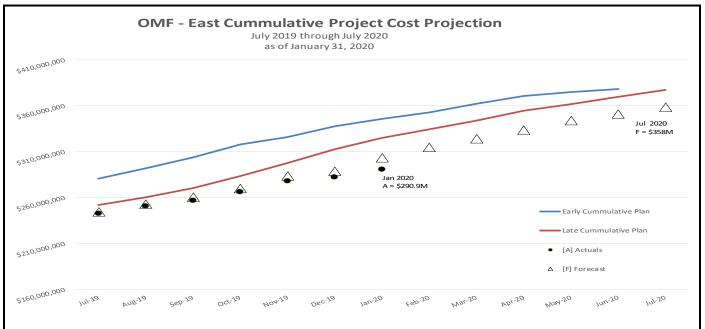
SCC Element	Baseline Budget	Authorized Project Al- location	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$2.6	\$4.4	\$4.1	\$2.7	\$4.1	\$0.3
20 Stations	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
30 Support Facilities: Yard, Shop	\$140.1	\$136.1	\$125.8	\$91.8	\$146.1	-\$10.0
40 Sitework & Special Conditions	\$43.6	\$48.5	\$40.1	\$26.5	\$43.1	\$5.4
50 Systems	\$43.0	\$41.6	\$39.0	\$26.0	\$39.0	\$2.6
Construction Subtotal (10 - 50)	\$229.3	\$230.6	\$209.0	\$147.1	\$232.4	-\$1.8
60 ROW, Land, Improvements	\$134.5	\$134.5	\$102.7	\$102.5	\$134.5	\$0.0
70 Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
80 Professional Services	\$71.6	\$70.3	\$50.0	\$41.3	\$68.5	\$1.8
90 Unallocated Contingency	\$13.8	\$13.8	\$0.0	\$0.0	\$13.8	\$0.0
Total (10 - 90)	\$449.2	\$449.2	\$361.7	\$290.9	\$449.2	\$0.0

# Link Light Rail Link Operations & Maintenance Facility: East



# **Project Cash Flow Projection**

The OMF East cost projection is trending late this period but anticipates to pick up through the following summer. Total project expenditure incurred to date at approximated \$290.9M with Construction Phase at 54.3% and Right-of-Way (ROW) phase at 38%. Construction activities is now the main cost driver. The forecasted cash flow was revised this period for the next nine months to reflect some current trends. While the Design Builder's (DB) design completion slipped and impacted specifically on Systems where some anticipated procurements did not occur as planned, construction has certainly picked up on yard tracks and structural steel installations. The project expenditure continues to trend a projection of \$358M by July of 2020 which is at the lower bounds of the late planned expenditures as shown in the graph below.



## **Risk Management**

The Risk and Contingency Management Plan (RCMP) establishes a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It provides a tool for the project team to proactively manage risks on the project. It is Sound Transit's responsibility for continuously monitoring project status and associated risks.

The project has completed Risk Mitigation Milestone (RMS) 2, the completion of ROW Acquisition and Mass Grading. The Quantitative Risk Assessment (QRA) assessed that with the current risk profile, the project would complete within the baseline schedule and budget. QRA for RMS 3, the completion of building enclosure, took place in December 2019 with report anticipated in February 2020. The current top actively managed risk areas remains similar to the previous quarter and are listed below:

- **Design**: With the project design effectively completed, changes made to scope or design will have greater cost impact than during the earlier design stages.
- *Scope*: Scope interfaces with East Link (E335/E750) tracks, OCS, Signals, LRV vehicle envelop, Operations' requirement changes creates additional work impacts the project's schedule and budget.
- *Construction:* As the construction progress past the midpoint, normal and routine construction risks will be encountered and post-IFC change to design may also drive cost growth to the project. Safety and environmental compliance is another area to monitor especially as the wet season begins.
- *Start Up:* As the project progress, it is inevitable that the startup phase needs to be address early. This facility will need coordination for testing and acceptance of ST Operations.



#### **Contingency Management**

The Link Operations and Maintenance Facility: East was baselined and approved by Sound Transit Board in July 2016 with a total contingency of \$93.2M. The Project's starting contingency balance as of the Notice to Proceed for Construction was \$71.6M reflecting the inclusion of the Design Allowance in the Design Builder contract amount. In this period, change orders were related to various construction scope. The current contingency balance remains materially unchanged at approximately \$66.9M (previous period at \$66.9M).

#### Design Allowance (DA): N/A

*Allocated Contingency (AC)* is used to address risks, complexity and unforeseen conditions during the execution of work, including procurement. Allocated contingency balance at the end of this period remains at \$53.1M (the previous period at \$53.1M).

*Unallocated Contingency (UAC)* is used to address general project-wide cost risks and uncertainties. The baseline UAC amount of \$13.8M reflects no changes this period.

#### **Contingency Status**

	Base	eline	Cu	rrent
Contingency Type	Amount	% of Total	Amount	% of Work Remaining
Design Allowance	\$ 25.3	5.6%	\$-	0.0%
Allocated Contingency	\$ 54.1	12.0%	\$ 53.1	33.5%
Unallocated Contingency	\$ 13.8	3.1%	\$ 13.8	8.7%
Total	\$ 93.2	20.7%	\$ 66.9	42.3%

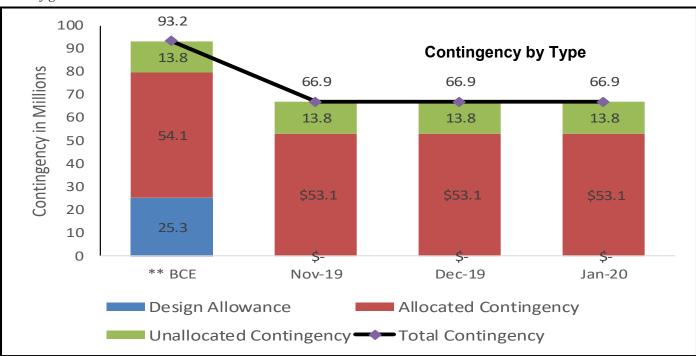


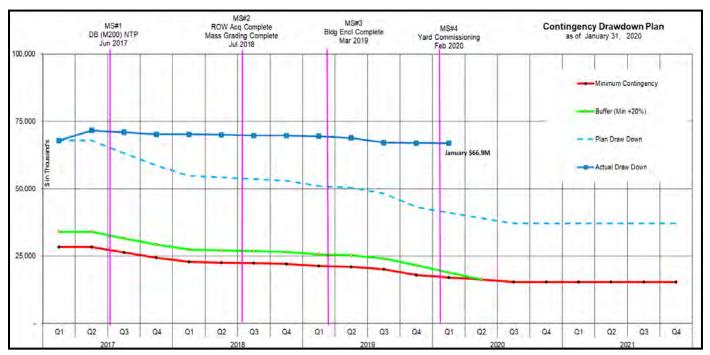
Table figures are shown in millions.

# Link Light Rail Link Operations & Maintenance Facility: East



#### **Contingency Drawdown**

At the end of the 4th QTR 2019, OMF East Project's total contingency drawdown plan is trending positively. Total contingencies balance is at approximate \$66.9M (previously quarter at \$67.1M) and remains above all the baseline draw down projection and well above both the minimum contingency and the buffered (minimum plus 20%) contingency levels. The next update will be at end of the 1st QTR 2020. Risk Mitigation Milestone #3 was revised and met in 4th QTR 2019.





OMF East birds eye view looking north taking shape with yard scope and steel structure framing



## Project Schedule

The schedule for OMF East is now entirely within the M200 contract, which is presented below. The Contractor continues to progress as planned and is forecast to complete on target. The OMF East is expected to be available to begin receiving LRVs as needed in the summer of 2020.

Activity Name	Start	Finish			2	2020	
				Q1	Q2	Q3	Q4
So und Transit	19-Jun-17 A	23-Dec-20					<u> </u>
Sound Transit 2	19-Jun-17 A	23-Dec-20				!	<del></del>
East Corrido r	19-Jun-17 A	23-Dec-20					
Operating Facilities - East	19-Jun-17 A	23-Dec-20		_			<del>;                                     </del>
LINK Operations & Maintenance Facility: East	19-Jun-17 A	23-Dec-20				1	
Link OMFE - Construction	19-Jun-17 A	08-Oct-20					-
M200 - Link OM FE - Design Build C antract	19-Jun-17 A	08-Oct-20				!	•
M200 Construction	19-Jun-17 A	06-Oct-20					
Precon struction & Administration	19-Jun-17 A	08-Oct-20	1				
Construction	19-Jun-17 A	09-Sep-20					
Mobilization & Early Sitework	19-Jun-17 A	29-Jul-20					
Maintenance & Shop Building	23-Jul-18 A	28-Jul-20	H	_			
Maintenance of Way Building	22-Jan-19 A	07-Jul-20	H			÷.	
Ancillary Structures	08-Jul-19 A	09-Jun-20	H				
Trackwork	13-Jul-18 A	05-Jun-20					
Site Surfacing & Finishes	01-Nov -18 A	22-Jun-20				<b>1</b>	
Project Closeout	01-Apr-18 A	09-Sep-20	H				
Link OMFE -ProjectCompetion	08-Oct-20	23-Dec-20					<u> </u>
Link OMFE - Project Closeout	08-Oct-20	23-Dec-20					
Project Float	08-Oct-20	23-Dec-20					
Project Completion (Baseline 23-Dec-20)		23-Dec-20*					•

## **Critical Path Analysis**

The critical path this month runs concurrently through the mechanical room in the Maintenance & Shop Building and through the OCS installation in the storage yard, and then through building commissioning, integration testing, and project closeout.

Activity Name	Start	Finish	2020						
			(	21	Q2	Q3	Q4		
Link OMFE - Construction	01-Nov-19 A	08-Oct-20							
M200 Construction	01-Nov -19 A	08-Oct-20							
Preconstruction & Administration	28-Nov - 19 A	06-Oct-20							
Miestones	08-Aug-20	06-Oct-20							
Contractual Milestones	08-Oct-20	08-Oct-20							
Mile stone 1 - Substanta I Completion	08-Oct-20	08-Oct-20							
Interim Construction Milestones	08-Aug-20	08-Oct-20							
Su brittals & Procurement	28-Nov -19 A	18-Feb-20	1 🕨						
Construction	01-Nov-19 A	07-Aug-20							
Maintenance & Shop Building	19-Feb-20	04-Jun-20							
Building Systems & Startups	19-Feb-20	04-Jun-20							
Ancillary Structures	08-Jun-20	09-Jun-20							
Traction Power Substation	08-Jun-20	09-Jun-20			1				
Trackwork	06-Feb-20	05-Jun-20	1						
Project Closeout	01-Nov -19 A	07-Aug-20							
Commissioning	01-Nov -19 A	07-Aug-20							
Link OMFE - ProjectCompletion	07-Oct-20	23-Dec-20							
Link OMFE - ProjectCloseout	07-Oct-20	23-Dec-20							
Project Float	07-Oct-20	23-Dec-20	1						
Project Completion (Baseline 23-Diec-20)		23-Dec-20*					+		



## **Community Outreach**

• Ongoing engagement with the public on potential construction impacts to the neighborhood.

# **Sound Transit Board Actions**

Board Action	Description	Date
	None to report this period.	

#### **Construction Safety**

Data/ Measure	January 2020	Year to Date	Project to Date				
Recordable Injury/Illness Cases	1	1	7				
Days Away From Work Cases	0	0	2				
Total Days Away From Work	0	0	31				
First Aid Cases	2	2	10				
Reported Near Mishaps	1	1	17				
Average Number of Employees on Worksite	145	145	-				
Total # of Hours (GC & Subs)	30,000	30,000	352,635				
OSHA Incident Rates	Monthly Average	Year to Date	Project to Date				
Recordable Injury Rate	6.67	6.67	3.97				
LTI Rate	0.00	0.00	1.13				
Recordable National Average		3.00					
LTI National Average	1.20						
Recordable WA State Average	6.00						
LTI WA State Average		1.90					

Note: Due to the timing of contractor's reporting periods, the current month's numbers above are a combination of actuals and estimates. All previous months' numbers are reconciled and replaced with actuals.



#### Contract M200 - OMF East Design Build

#### **Current Progress**

Design: Hensel Phelps (HP) advanced design package (DP) for DP05 currently being evaluated.

**Construction**: Track work skeletonizing continued at the north and south maintenance fans and embedded track work was completed at the building and is in progress at the south apron. For signals and communications, switch machines and crib and rail heaters were installed for the north storage fan, south fan, storage tracks, and north runaround. At the OMF Building, insulated metal panels, roofing and curtain wall were completed around the admin area of the building. Framing and MEPF overhead and in wall rough-ins continue at Levels 1 and 2. MOW Building also included MEPF overhead and wall rough-ins were ongoing, began high performance paint and prime ceiling.

#### **Next Period's Activities**

- Continue work at OMF East Building.
- Continue work at MOW Building.
- Continue track work throughout site.
- Systems work to begin.

#### **Closely Monitored Issues**

• PSE Delays at North Trail: PSE easement language has been received and is under review by Sound Transit.

## **Cost Summary**

Present Financial Status	Amount								
M200 Contractor – Hensel Phelps									
Original Contract Value	\$218,912,000								
Change Order Value	\$5,053,565								
Current Contract Value	\$223,965,565								
Total Actual Cost (Incurred to Date)	\$160,698,429								
Percent Complete	72.84%								
Authorized Contingency	\$21,891,200								
Contingency Drawdown	\$5,053,565								
*Contingency Index	4.1								
*Excludes Betterments									



OMFE—Building panel and south apron track installation

# Link Light Rail Light Rail Vehicle Fleet Expansion

#### **Project Summary**

Scope	Design, manufacturing, assembly, inspec- tion, testing and delivery of 152 low floor light rail vehicles for service requirements of Northgate, East Link and Lynnwood Link Extensions.
Phase	Manufacturing
Budget	\$740.7 Million (Baseline September 2015, Amended April 2017)
Schedule	Project Completion: 3rd QTR 2024



SoundTransit

Siemen's LRV on test track.

## **Key Project Activities**

- Of the 21 design reports, 15 approved, 5 conditionally approved, 1 disapproved.
- Two LRVs received in Seattle and two LRVs returned to Sacramento for cab masks change in January 2020.
- 28 cars in final assembly and 5 carshells in process at Siemens' facilities in Sacramento, CA.
- Siemens is 2 cars behind (LRVs delivered) and 6 cars behind (number of conditionally accepted LRVs) their recovery schedule.

#### **Closely Monitored Issues**

- High schedule risk for commissioning and burn-in of Siemens' LRVs until lift jacks issue is resolved.
- OMFC yard storage capacity in 2020 may limit Siemens LRV delivery schedule; production progress is being monitored closely. Risk lower, shifting to 2021. LRVs delivery and transportation study between OMFC & OMFE based on updated schedule is in progress.
- Moderately high number of documents on CIL (Certifiable Items List) pending approval: Design (32%), Qualification (97%).



LRV 202 & 203 at Sacramento CA for cab masks change



Magnetic Perturbation tests conducted in Seattle, WA



# **Project Cost Summary**

The LRV Fleet Expansion Project has an approved baseline budget of \$740.7M. The project cost is summarized into two cost tables. The first table is in accordance with Sound Transit's Work Breakdown Structure (WBS) displaying the cost summary by phase. The second table summarizes project cost by SCC, in accordance to the FTA Standard Cost Categories (SCC) format. Both tables show figures in millions.

The project expenditure incurred to date is approximately \$175.5M to which a majority of the cost is attributed to the vehicles phase. The current period expenditure is approximately \$6.4M, where the majority cost is associated to LRVs of \$5.9M. The other incurred cost was mostly attributed from engineering and inspection of \$319.4k and staff costs of \$46.7k.

#### **Cost Summary by Phase**

Project Phase	Baseline Budget	Authorized Project Alloca- tion	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$6.4	\$6.4	\$2.7	\$2.7	\$6.4	\$0.0
Construction Services	\$18.0	\$18.0	\$15.1	\$5.9	\$18.0	\$0.0
Vehicles	\$716.3	\$716.3	\$650.6	\$167.0	\$716.3	\$0.0
Total	\$740.7	\$740.7	\$668.5	\$175.5	\$740.7	\$0.0

#### Cost Summary by SCC

SCC Element	Baseline Budget	Authorized Project Alloca- tion	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Construction Subtotal (SCC 10- 50)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
60 ROW, Land, Existing Improve- ments	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
70 Vehicles	\$702.8	\$704.8	\$665.7	\$172.9	\$704.8	\$0.0
80 Professional Services	\$6.1	\$6.1	\$2.7	\$2.7	\$6.1	\$0.0
90 Contingency	\$31.7	\$29.7	\$0.0	\$0.0	\$29.7	\$0.0
Capital Total (SCC 10 - 90)	\$740.7	\$740.7	\$668.5	\$175.5	\$740.7	\$0.0

*Totals may not equal column sums due to rounding of line entries.



#### Risk Management

The Risk and Contingency Management Plan (RCMP) establishes a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It provides a tool for the project team to proactively manage risks on the project. It is Sound Transit's responsibility to continuously monitoring project status and associated risks.

The project's qualitative risk register reflects 4th Quarter of 2019, the meetings were held on January 7th and 14th, 2020. The current top risk are listed below:

- Siemens slower than expected Safety Certification Process could possibly delays to revenue service dates on all programs.
- Special tools and test equipment must be identified, procured, delivered and commissioned prior to LRV conditional acceptance.
- Familiarization Training with local emergency responders has not yet started and no time table for completion.
- Siemens limited staff and equipment supporting testing and commissioning slowing down qualification testing and remainder of certification process.
- Automatic Train Protection interface between ST1 vehicle ATP system and new ST2 vehicle ATP causing potential interface or functional problems.

## **Contingency Management**

The project's budget was Baselined in September 2015 and was amended in April 2016 to exercise the option LRV contained a total of \$78.0M of Total Contingency. The project's Total Contingency is currently at \$68.9M or about 13.3 % of remaining work in the project.

**Design Allowance (DA)** was established to account for unquantified scope at the time of the cost estimate. This project contains \$0 design allowance.

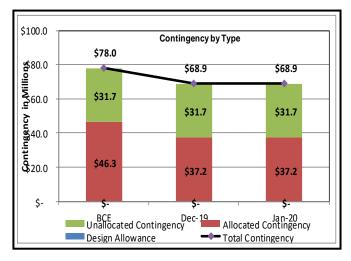
Allocated Contingency (AC) is used to address risks, complexity and unforeseen conditions during the execution of work, including procurement. The project baseline's allocated contingency was \$46.3M. The AC for November remains unchanged at \$37.2M.

**Unallocated Contingency (UAC)** is used to address general project-wide cost risks and uncertainties. The UAC for November remains unchanged at \$31.7M.

#### **Contingency Status (Monthly)**

Contingency	Base	eline	Current						
Status	Amount	% of Total Budget	Remaining Amount	% of Work Remaining					
Design Allowance	\$ -	0.0%	\$-	0.0%					
Allocated Con- tingency	\$ 46.3	6.4%	\$ 37.2	7.5%					
Unallocated Contingency	\$ 31.7	4.3%	\$ 31.7	6.4%					
Total	\$78.0	10.7%	\$ 68.9	14.0%					

#### Contingency by Type





# **Project Schedule**

The progress schedule was established using the last monthly production schedule submittal and forecast milestones updates for engineering final design during the weekly progress and coordination meeting. As of December 2019, Sound Transit has received a total of eighteen cars. Siemens is anticipating to shipping three more Type 2 LRVs and returning three of the rejected LRV with mask issues between January and February 2020. Siemens' LRV shipment to Seattle is officially on hold at 18 until Conditional Acceptance of the first LRV is approved.

covity Name	Start	Finish		1	2	020	-	-	2	22			- 3	1023			2024	
			Q4	Q1	Q2	0	3 Q4	1 Q1 0	22	Q3	04	01	Q2	03	Q4	Q1 Q	2	Q3
ST2 Light Rail Vehicle Fleet Expansion	24-Feb-15A	22-Sep-24				1		1	10	1.1								
ST2 Light Rail Vehicle Fleet Expansion	24-Feb-15A	10-0a-16 A				E.	1		18		ł		1	1		1		
LRV Engineering and Manufacture	11-Oct-18 A	13-Mar-20					U.		.3									
LRV Delivery Schedule	07-Jun-19A	24-Aug-24	h			1	1			-								-
LRV #1-122 (122 LRV Base Order)	07-Jun-19.A	28-Feb-23	H-		-	1					-	-						
Delivery of 1st LRV (BL 27-Mar-19) Delivery of 40th LRV - Northgate Link Vehicle Deliveries Complete (BL 26-Jun-20)	-	07-Jun-19A 30-Jul-20*				٠												
Delivery of 42nd LRV - Existing OMF at capacity (104 LRVs) (BL 27-Jul-20) Delivery of 122nd LRV - Final ST2 Delivery (BL 26-Aug-22) Final Acceptance of Vehicles (BL 28-Feb-23)	1.1.1	17-Aug-20* 01-Aug-22* 28-Feb-23*								•								
LRV #123 - 152 (30 LRV Options) - Change Order #4	16-Jan-24	24-Aug-24		1	1	1			-		1		1			-		-
Delivery of 152nd LRV - Final Delivery (BL 26-Feb-24) Final Acceptance of Vehicles (BL 26-Aug-24)		16-Jan-24" 24-Aug-24"														•		
Project Closeout	28-Feb-23	22-Sep-24				I.								i -				-
LRV#1-122 - Base Order	28-Feb-23	28-May-23	1										-					
ST-Controlled Roat LRV Procurement Complete - LRV #1 - #122 LRV #123 - #152 - CO #4	28-Feb-23 22-Sep-24	28-May-23 28-May-23 22-Sep-24											•					
LRV Procurement Complete - LRV #123 - #152		22-Sep-24																

#### LRV Delivery and Testing Progress as of January 31, 2020

LRV status	Received in Seattle	Testing in progress (Seattle)	Conditionally Accepted	Entered Revenue Service		
Planned	20	20	6	-		
Actual	18	15	0	-		



## Critical Path Analysis

The critical path is completing the on-site Vehicle Performance Qualification Test of Car 204 and Acceptance Testing and Burn-In of all LRVS that have been delivered to Sound Transit site as of December 2019.

Delivery and Conditional Acceptance Testing of all 40 light rail vehicles required for Northgate Link is closely monitored to support the Pre-Revenue simulation period. The planned deliveries, commissioning and testing of light rail vehicles are anticipated to be complete by September 2024. As well as on time for the start of Pre-Revenue Service for each of the new extension lines: East Link, Lynnwood Link, Downtown Redmond Link and Federal Way Link and Federal Way Link.

#### LRV Manufacturing and Qualification Testing Critical Path Schedule

Covey Name	Statt	ENER	10 I		2020		
	and the second		01		Q2	Q3	04
Manufacturing	23-Aug-19 A	15-Dec-20					
LRV #004	23-Aug-19.A	14-Jan-20			1	-	
Qualification Testing LRV#004	23-Aug-19 A	14-Jan-20					
LRV #011	28-Aug-19 A	16-Mar-20		-	1		
Acceptance Testing (includes MP and GBV) LRV#011	29-Aug-19 A	21-Feb-20					
Bum-In LRV#011	24-Feb-20	13-Mar-20					
Conditional Acceptance (Milestone A-E) LRV#011	16-Mar-20*			•	1		
LRV #012	12-Sep-19A	18-Mar-20		-	1		
Acceptance Testing (includes MP and GBV) LRV#012	12-Sep-19A	21-Feb-20			1		
Bum-In LRV#012	24-Feb-20	13-Mar-20	-				
Conditional Acceptance (Milestone A-E) LRV#012	16-Mar-20*			•			
LRV #013	24-Sep-19 A	16-Mar-20	11	-			
Acceptance Testing (includes MP and GBV) LRV#013	24-Sep-19 A	21-Feb-20			1	1	
Bum-In LRV#013	24-Feb-20	13-Mar-20			1		
Conditional Acceptance (Milestone A-E) LRV#013	16-Mar-20*			•	1		
LRV #014	26-Sep-19 A	15-Apr-20					
Acceptance Testing (includes MP and GBV) LRV#014	26-Sep-19A	23-Mar-20					
Bum-In LRV#014	24-Mar-20	14-Apr-20			1		
Conditional Acceptance (Milestone A-E) LRV#014	15-Apr-20*			•			
LRV #015	30-Sep-19.A	15-Apr-20	7 Contraction of the second		1		
Acceptance Testing (includes MP and GBV) LRV#015	30-Sep-19 A	23-Mar-20					
Bum-In LRV#015	24-Mar-20	14-Apr-20	2 12 -				
Conditional Acceptance (Milestone A-E) LRV#015	15-Apr-20"			•			
LRV #016	17-Cd-19A	15-May-20	7.17				
Acceptance Testing (includes MP and GBV) LRV#016	17-Oct-19 A	23-Apr-20			no nome in	in a nime of star and	and a section of the West Decks and
Burn-In LRV#016	24-Apr-20	14-May-20					
Conditional Acceptance (Milestone A-E) LRV#016	15-May-20*		2		•		
LRV #048	23-Jul-20	15-Dec-20					
Shipment and Arrival at O&M Facility LRV#048	23-Jul-20	29-Jul-20			+	-	
Delivery LRV#048	30-Jul-20				in the second	•	
Acceptance Testing (includes MP and GBV) LRV#048	31-Jul-20	19-Nov-20					
Burn-In LRV#048 Conditional Acceptance (Milestone A-E) LRV#048	20-Nov-20 15-Dec-20*	14-Dec-20					

## Staffing Summary

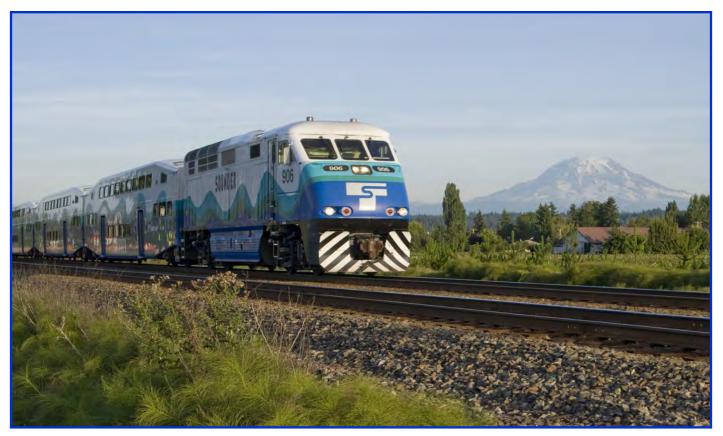
The planned Full-Time Equivalent (FTE) is an annual projection of ST project staff and consultants. Planned FTE are an annual projection and remains constant from month to month. The Year-to-Date (YTD) Performance is the total actual FTEs accumulated through this reporting period. Staffing status is summarized in the following table.

The Planned Monthly Average FTE is an average that reflects the work effort across the entire year. The variance between the planned ST Staff and the YTD Actual ST Staff is 4.2. This variance is largely due to the cumulative fractions of estimated FTEs spread across various departments and cannot be attributed to any one main variance driver. This number is expected to trend toward the planned as the project progress through the year.

Resource Type	Planned FTE Monthly Average	YTD Actual FTE Monthly Average	Variance						
ST Staff	9.5	5.3	(4.2)						
Consultants	7.8	7.2	0.6						
TOTAL 17.3 12.5 (4.7)									
* An FTE is the equivalent of 2080 hours. YTD performance FTE hours are divided by a monthly factor of 173.33.									

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# Progress Report Sounder Program



Sounder trains travel between Lakewood and Seattle with regular runs weekday morning and afternoons. Sounder also serves select major weekend events such as Mariners, Sounders, and Seahawk games.

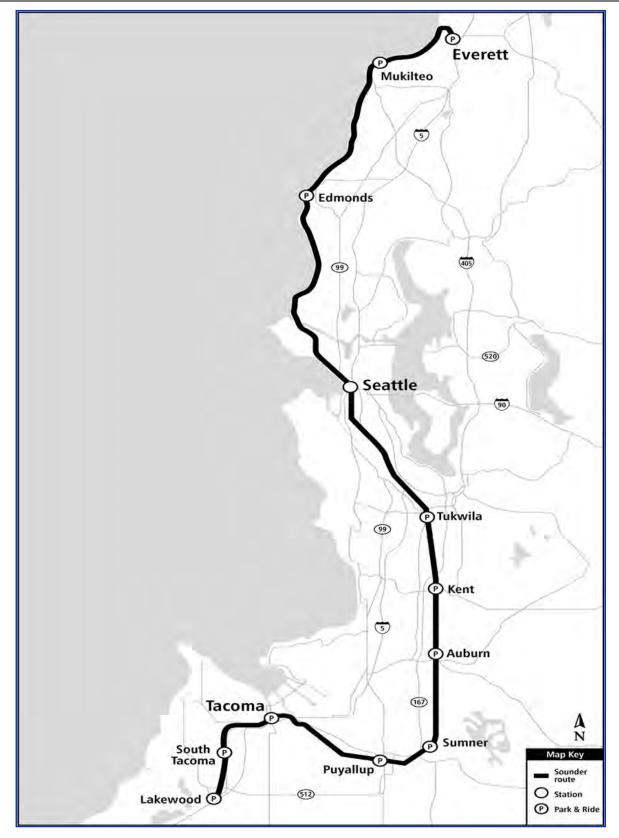


Prepared by Project Control & VE | Design, Engineering & Construction Management

January 2020



# Sounder Commuter Rail Program Overview



Sounder Commuter Rail Routes



Auburn Station Access Improvements: Project includes alternatives identification, screening, environmental documentation, design and construction of station access improvements at or around Auburn Station. The purpose of the project is to improve access to the existing Auburn Sounder station for Sounder riders, bicyclists, bus riders, and drivers.

Edmonds and Mukilteo Stations Parking & Access Improvements: The Edmonds and Mukilteo Stations Parking and Access Improvements Project will provide parking and access improvements to the Edmonds and Mukilteo Sounder Stations. A variety of access improvements will be considered for each station including bicycle and pedestrian access, pick up/drop off areas, transit integration, and parking.

Kent Station Access Improvements: Project includes alternatives identification, screening, environmental documentation, design and construction of station access improvements at or around Kent Station. The purpose of the project is to improve access to the existing Kent Sounder station for Sounder riders, bicyclists, bus riders, and drivers.

**Mukilteo Station, South Platform:** Full build-out of this station included construction of a second platform, overhead pedestrian bridge, elevators, stair tower, and passenger shelters. Sounder service at the south platform began on April 11, 2016. The project page for this project has been removed. Only follow-on work remains.

**Point Defiance Bypass:** Sound Transit administered the construction of the Point Defiance Bypass Track & Signal contract, which constructed a new second track adjacent to Sound Transit's existing main line between South Tacoma (66th Street Bridge) and Lakewood (Bridgeport Way) and installed new rails, ties, and ballast on Sound Transit's existing track between Lakewood and Nisqually with associated signal and PTC safety systems. The work was funded by a FRA-administered federal grant to WSDOT for improvements along the Pacific Northwest High Speed Intercity Passenger Rail corridor. Construction was completed 3Q 2017, and the track is in service. The project page for this project has been removed.

**Puyallup Station Access Improvements:** Project includes environmental documentation, design and construction of station access improvements at or around Puyallup Station. The purpose of this project is to accommodate and encourage future demand for Sounder ridership in an economically efficient and environmentally sustainable manner.

**Sounder South Capacity Expansion:** This project establishes a program of capital elements that will improve South Sounder access, capacity, and services in response to increase in demand. Program elements could include platform extensions, track and signal upgrades and other related infrastructure to facilitate additional capacity, and access improvements for pedestrians, bicyclists, buses, and private vehicles, prioritized per Sound Transit's System Access Policy. The elements included in this representative project will be refined during future phases of project development and are subject to change.

**Sounder Maintenance Base:** Sound Transit will construct a new railroad maintenance facility to service Sounder commuter trains at its expanded Century Yard facility in the City of Lakewood. The building will contain maintenance bays, materials storage areas, offices, and facilities for employees.

**Summer Station Access Improvements**: Project includes environmental documentation, design, and construction of station access improvements at or around Summer Sounder Station. The purpose of this project is to accommodate and encourage future demand for Sounder ridership in an economically efficient and environmentally sustainable manner.

**Tukwila Station:** Construction of a permanent station and platforms to replace the temporary wooden structure has been completed. This project included the construction of an expanded parking lot, bus loop with passenger shelters, bicycle storage area, and new concrete platforms with improved passenger shelters, all sited to accommodate BNSF's new third mainline, now under construction. The project page for this project has been removed. Only follow-on work remains.



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# **Program Budget**

The Authorized Project Allocation reflects the budget for each project through the approved project phase, meaning that for projects approved for Final Design activities only, the project budget will be amended at some point to add budget for construction activities.

Sounder	Authorized Allocation	Commitment To Date	Incurred to Date	Forecast to Complete	Estimated Final Cost	Authorized Allocation vs EFC
AUBURN STATION ACCESS IMPRVMNT	\$11.4	\$4.2	\$3.5	\$7.2	\$11.4	\$0.00
EDMONDS & MUKILTEO STN P&A IMP	\$2.5	\$0.8	\$0.8	\$1.7	\$2.5	\$0.00
KENT STATION ACCESS IMPRVMNTS	\$15.6	\$4.6	\$3.6	\$11.0	\$15.6	\$0.00
PUYALLUP STATION IMPROVEMENTS	\$79.1	\$13.6	\$9.3	\$65.5	\$79.1	\$0.00
SOUNDER MAINTENANCE BASE	\$13.0	\$9.3	\$7.5	\$3.6	\$13.0	\$0.00
SOUNDER SOUTH CAPACITY EXPN	\$3.6	\$2.3	\$1.9	\$1.3	\$3.6	\$0.00
SUMNER STATION IMPROVEMENTS	\$17.8	\$15.9	\$9.8	\$1.9	\$17.8	\$0.00
Total SOUNDER	\$143.0	\$50.9	\$36.3	\$92.2	\$143.0	\$0.00

Figures are shown in millions

#### **Program Schedule**

Schedule for active projects are summarized below.

#### Schedule Snapshot

Project Name	Start	Finish	Π		202	20		20	021			2022			20	23		2	024			202	)	T	20	26
			M4	Q1	Q2	Q3 Q	4 Q	1 Q2	Q3	Q4	Q1	Q2 (	3 Q4	Q1	02	Q3 (	¥ 0	1 02	Q3	Q4	Q1	Q2 0	13 Q	4 Q1	Q2	Q3 Q4
Sound Transit	01-Apr-13A	28-Feb-25	i		III	1111			III			IIII					TH	IIII			Πİ		TIT			
♦ Sound Transit 2	01-Apr-13A	28-Feb-25																								
🚸 South Conidor	01-Apr-13 A	28-Feb-25																								
🕼 Sounder Commuter Rail - South	01-Apr-13 A	28-Feb-25																								
Operations/Facilities - South	01-Apr-13A	28-Feb-25																								
🛅 S300004 - Sounder Maintenance Base - Design/Build - DD: 2020-02-01	01-Apr-13 A	28-Feb-25	Ë																			Ī	Ĩ	IIII	ΠΠ	ΪΠΠ Ι
Station Access - South	01-May-15 A	31-Deo-24																								
S300018 - Sumner Station Parking and Access Improvements - DB Master Sch	01-May-15 A	25-Aug-23	Ë													3										
S300017 - Puyallup Station Access and Expansion - DB Master Schedule	01-May-15 A	24-Feb-22									- <b>L</b> L L						İİİ		III		III		İİİ			
S300035 - Kent Station Access Improvements - DB Master Schedule	24-Feb-16A	14-Nov-24	Ë						<u></u>											<u>.</u>						
📄 S300040 - Aubum Station Access Improvements - DB Master Schedule	24-Feb-16 A	31-Deo-24			÷÷÷				 			;÷÷÷	÷-÷÷-;	****						····		İİİ	İİİ			

## **Construction Safety**

Construction and System Safety provide systematic and comprehensive oversight, resources, and guidance to eliminate recognized hazards, promote a safety culture and achieve an integrated system of compliance and continuous improvement of safety on both construction projects and transit system elements. Agency-led active construction contracts under the Sounder program are as follows:

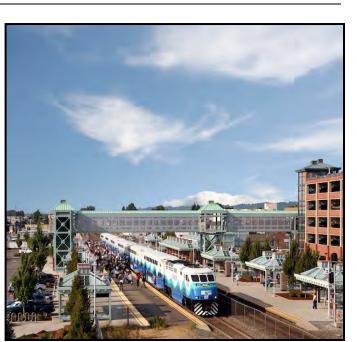
• None to report.



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#### **Project Summary**

Scope	The purpose of the project is to improve access to the existing Auburn Sounder Sta- tion for Sounder riders, bicyclist, bus rid- ers, and drivers.
	Project includes alternatives identification, screening, environmental documentation, design, and construction of station access improvements at or around Auburn Station.
Phase	Conceptual Engineering and Environmental Review
Budget	\$11.4 Million
Schedule	Open for Service: 2024



Improving access to Sounder Auburn Station

#### Key Project Activities

- Sound Transit issued SEPA/DNS on January 29th to February 12, 2020 for two week public comment review.
- Sound Transit and City of Auburn held meetings to reach concurrence on environmental mitigation option for the traffic impacts associated with the design of the new parking garage.

# **Project Cost Summary**

The project cost is summarized below in accordance with Sound Transit's budget Work Breakdown Structure (WBS). The figures shown are in millions.

This period expenditures increased by \$35K. The incurred cost increased from \$3.4M to \$3.5M. The majority of this period's costs is attributed to staff costs, preparing environmental documentation, and conceptual engineering work. Additional funds of \$2.5M was added to this project for construction services and third party agreements.

Project Phase	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$1.6	\$1.1	\$1.1	\$1.6	\$0.0
Preliminary Engineering	\$3.4	\$2.8	\$2.4	\$3.4	\$0.0
Final Design	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Services	\$2.0	\$0.0	\$0.0	\$2.0	\$0.0
3rd Party Agreements	\$0.6	\$0.0	\$0.0	\$0.6	\$0.0
Construction	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$3.8	\$0.4	\$0.0	\$3.8	\$0.0
Total	\$11.4	\$4.3	\$3.5	\$11.4	\$0.0

#### Cost Summary by Phase





#### **Risk Management**

The Risk and Contingency Management Plan (RCMP) establishes a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It provides a tool for the project team to proactively manage risks on the project. It is Sound Transit's responsibility to continuously monitor project status and associated risks.

The project team will develop the Risk and Contingency Management Plan (RCMP) during Phase III—Preliminary Engineering phase of the project. The project team will conduct a risk management workshop to identify all the potential risks during design and construction by Q1 2020.

The project team reviewed and updated the risk register in Q4 2019, and will continue to do so on a quarterly basis. The following are the top project wide risks:

- Project estimate higher than financial plan
- Project schedule delayed to 2024 due to lengthier environmental process
- Ability to reach concurrence with the City of Auburn on key elements to advance project

## **Project Schedule**

The project is nearing completion of Phase II—Conceptual Engineering and Environmental activities. The project forecasts completion of the environmental assessment in Q1 2020.

Sound Transit and City of Auburn continue to work to reach concurrence on traffic mitigation. Sound Transit sent Letter of Concurrence (LOC) to City of Auburn in late January 2020 for review and anticipates signing the LOC in February or early March 2020.

Delay in reaching concurrence has delayed completion of requisite environmental evaluation leading to Sound Transit Board action for "Select the Project to be Built." Project team issued SEPA Checklist and SEPA Determination of Non-Significance (DNS) with conditions for public comment January 29, 2020 and is working with FTA to approve the NEPA Documented Categorical Exclusion (DCE) in February 2020, prior to Board action.

Construction NTP is forecast for Q4 2021 and Open for Service is forecast for Q4 2024.

tivity ID Activ	vity Name	Start	Finish	1.00	202	)	1.1.1	2021	لم من مثل	1.7	202	22		2	023			2024		20
				Q1 (	02	Q3 Q4	Q1	Q2 G	3 Q4	Q1	02	Q3 (	24 Q	1 Q2	Q3	Q4 (	21 0	22 Q	3 Q4	T
Sound Transit		24-Feb-16A	31-Dec-24						-	-										1
Sound Transit 2		24-Feb-16 Á	31-Dec-24		-	-			-	-	-	-		-		+			_	t
South Corridor		24-Feb-18A	31-Dec-24	-	-	-	-	-	-	1	-		-	-	-	-	-		-	t
S300040 - Auburn Stat	ion Access Improvements - DB N	24-Feb-16A	31-Dec-24	-		-			-	-			-			+	-		-	t
Alternative Analysis (F	Phase I)	24-Feb-16 A	15-Nov-17A	1.00						L										
Conceptual Engineeri	ing (Phase II)	22-Mar-18 A	05-May-20																	t
Preliminary Engineeri	ing (Phase III)	13-Dec-18 A	19-Nov-20	_	-		-													L
Permits and Agreeme	ints	30-Sep-19 A	03-Apr-22			_	-		-	1.0	•									L
Right of Way		31-May-18 A	22-Apr-22	-		-				-	-									L
Design-Build Project	Management (DBPM)	02-Jan-20 A	04-Jun-24	100.000	-	0. Au				1						-		7		
DBPM Procurement		02-Jan-20 A	09-Apr-20	-						1										T
DBPM Services/Support	(Pre-Const and Const)	24-Apr-20	04-Jun-24				-			1						-	-			L
Design-Build Contrac	t (DB)	14-Oct-20	04-Jun-24			-				1			1							
Design-Build Contract - F	Procurement	14-Oct-20	06-Oct-21						-											L
Design/Build Contract - D	Design and Construction	06-Oct-21	04-Jun-24	1.000		0.500	-						6.0					-		
Post Construction		05-Jun-24	31-Dec-24					-										-		Ť
Transition to Operations		05-Jun-24	04-Jul-24															-		
Project Float		05-Jul-24	31-Dec-24																_	1
Open For Service		31-Dec-24	31-Dec-24																	۲



#### **Community Outreach**

• Sound Transit continues planning for open house in Q2 2020 to update the community on the project.

#### **Staffing Summary**

The planned Full-Time Equivalent (FTE) is an annual projection of Sound Transit project staff and consultants. Planned FTE are an annual projection and remains constant from month to month. The Year-to-Date (YTD) Performance is the total actual FTEs accumulated through this reporting period. Staffing status is summarized in the following table.

The SEPA/DNS was issued in January 2020 for a two week public comment review. The project team level of effort was lower for the month in January 2020.

Resource Type	Planned FTE Monthly Average	YTD Actual FTE Monthly Average	Variance						
ST Staff	5.6	2.4	(3.2)						
Consultants	2.3	1.2	(1.1)						
TOTAL	7.9	4.0	(4.3)						
* An ETE is the aguitudent of 2020 hours. VTD performance ETE hours are divided by a monthly factor of 172-22									

* An FTE is the equivalent of 2080 hours. YTD performance FTE hours are divided by a monthly factor of 173.33.

#### **Sound Transit Board Actions**

Board Action	Description	Date
	None this period.	



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# Sounder Commuter Rail Edmonds and Mukilteo Station Parking & Access Improvements



# **Project Summary**

Scope	The purpose of the project is to provide parking and access improvements to the Edmonds and Mukilteo Sounder Stations, in order to increase ridership on Sounder North.
	A variety of access improvements will be considered for each station including bicy- cle and pedestrian improvements, transit connections, vehicle access, parking and pickup/drop-off areas.
Phase	Planning—Phase 1: Project Definition and Screening
Budget	\$2.5 Million (Phase 1)
Schedule	Open for Service: 2024



Sounder Mukilteo Station Access Improvements

# **Key Project Activities**

- Completed evaluation and solicited comments on seven new improvements considered for Mukilteo.
- Presented results of evaluation for all potential improvements to Mukilteo City Council.
- Developed scope, estimated costs, and completed negotiations for Phase 2 contract.
- Prepared for March CCB and April SEC and Board meetings.



#### Project Cost Summary

The project cost is summarized below in accordance with Sound Transit's budget Work Breakdown Structure (WBS). The figures shown are in millions.

This period expenditures increased due to progress by the consultant by \$15K on alternative development studies and increased on Sound Transit staff costs by \$11K but not enough to be seen in the rounded figures.

#### **Cost Summary by Phase**

Project Phase	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$1.0	\$0.3	\$0.3	\$1.0	\$0.0
Preliminary Engineering	\$1.3	\$0.5	\$0.5	\$1.3	\$0.0
Final Design	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Services	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
3rd Party Agreements	\$0.2	\$0.0	\$0.0	\$0.2	\$0.0
Construction	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Light Rail Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0
Total	\$2.5	\$0.8	\$0.8	\$2.5	\$0.0

#### **Risk Management**

The Risk and Contingency Management Plan (RCMP) establishes a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It provides a tool for the project team to proactively manage risks on the project. It is Sound Transit's responsibility to continuously monitor project status and associated risks.

The following are the top project wide risks:

- Challenge in allocating the \$40M project budget between two station areas. This is a decision the ST Board of Directors will make, likely during Phase 2 of the project.
- Cities/partners' desires for more parking, or more expensive parking, than appears affordable within the \$40M project budget.



## **Project Schedule**

Sound Transit has almost completed Alternative Analysis Phase 1. Currently working on identifying improvements for further analysis. This should be done by end of Q1 2020. Some work has been initiated to prepare SEPA Check Lists - Draft. Anticipated Gate II start is end of Q2 2020. NTP should be by end of Q1 2023 and Services to be Open to Public by end Q4 2024.

ctivity ID	Activity Name	Start	Finish	2020	2021	2022	2023	20.2
				01 02 03 04	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q
S 00087 - Edn	nonds & Mukilteo Stations Par	king ^{08-Jan-18 A}	31-Dec-24					
Milestones								
Prelminary	Engineering	08-Jan-18 A	08-Oct-21					
Alternative	Analysis - (Phase I)	08-Jan-18 A	264/Jar-20					
Conceptua	Engineering -(Phase II)	03-Deo-19 A	05-Oct-20					
Preliminary	Engineering - (Phase III)	06-Jul-20	06-Oct-21					1
Final Design	1	08-Oct-21	03-Jul-23		-			
ROW/Permi	tting	25-Mar-20	20-Sep-22					
Construction	1	27-Mar-23	08-Nov-24				-	
Post Constru	uction	07-Nov-24	31-Deo-24					
System Inte	egration Testing	07-Nov-24	04-Deo-24					1
Project Floa	it	05-Deo-24	31-Dec-24					
Open for Se	ervice	31-Deo-24	31-Dec-24					

# **Community Outreach**

• Solicited public feedback on seven new potential improvement projects in Mukilteo. Publicized through listserv, social media, and press releases. Analyzed feedback and incorporated into project planning.



# **Staffing Summary**

The planned Full-Time Equivalent (FTE) is an annual projection of ST project staff and consultants. Planned FTE are an annual projection and remains constant from month to month. The Year-to-Date (YTD) Performance is the total actual FTEs accumulated through this reporting period. Staffing status is summarized in the following table.

Planned FTE is an annual projection. The variance is explained by the fact that Phase 2 will be advanced in Q2 2020.

Resource Type	Planned FTE Monthly Average	YTD Actual FTE Monthly Average	Variance						
ST Staff	5.7	1.0	(4.7)						
Consultants	4.0	0.5	(3.5)						
TOTAL	9.7	1.5	(8.2)						
* An FTE is the equivalent of 2080 hours. YTD performance FTE hours are divided by a monthly factor of 173.33.									

# **Sound Transit Board Actions**

Board Action	Description	Date
	None this period.	

# Sounder Commuter Rail Kent Station Improvements

#### **Project Summary**

Scope	The purpose of the project is to improve ac- cess to the existing Kent Sounder station for Sounder riders, bicyclists, bus riders, and drivers.						
	Project includes alternatives identification, screening environmental documentation, de- sign, and construction of station access im- provements at or around Kent Station.						
Phase	Conceptual Engineering and Environmental Review complete						
Budget	\$15.7 Million						
Schedule	Open for Service: 2024						



SoundTransit

Improving access to Sounder Kent Station

#### **Key Project Activities**

- Sound Transit and City of Kent executed Letter of Concurrence on project scope elements to be built.
- Sound Transit and King County Metro to execute a Letter of Concurrence on bus layover scope elements to be built on site.
- Sound Transit's Board of Directors expected to "Select the Project to be Built and Authorized ROW Acquisition in Feb 2020".

## **Project Cost Summary**

The project cost is summarized below in accordance with Sound Transit's budget Work Breakdown Structure (WBS). The figures shown are in millions.

This period, expenditure increased by \$33K. The incurred cost increased from \$3.6M to \$3.6M. The majority of this period's costs is attributed to staff costs, ROW activities, preparing environmental documentation, and conceptual engineering work. Additional funds of \$2.5M was added to this project for construction services and third party agreements.

#### **Cost Summary by Phase**

Project Phase	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$1.7	\$1.1	\$1.1	\$1.7	\$0.0
Preliminary Engineering	\$3.5	\$3.1	\$2.5	\$3.5	\$0.0
Final Design	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Services	\$2.0	\$0.0	\$0.0	\$2.0	\$0.0
3rd Party Agreements	\$0.6	\$0.0	\$0.0	\$0.6	\$0.0
Construction	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$7.9	\$0.4	\$0.0	\$7.9	\$0.0
Total	\$15.7	\$4.6	\$3.6	\$15.7	\$0.0



#### **Risk Management**

The Risk and Contingency Management Plan (RCMP) establishes a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It provides a tool for the project team to proactively manage risks on the project. It is Sound Transit's responsibility to continuously monitor project status and associated risks.

- The Kent Station Access Improvements Project Team will develop the Risk and Contingency Management Plan (RCMP) during Phase III—Preliminary Engineering phase of the project. The project team will conduct a risk assessment workshop to identify all the potential risks during design and construction by Q1 2020.
- The Kent Station Access Improvements Project Team reviewed and updated the risk register in Q4 2019. The team will review and revise the register on a quarterly basis.

## **Project Schedule**

The project continued working towards completing the Phase II—Conceptual Engineering and Environmental activities throughout Q4 2019 and completed the environmental evaluation in Q4 2019. Letter Of Concurrence (LOC) between Sound Transit and City of Kent signed in January 2020. Sound Transit sent Development Agreement (DA) to City of Kent in late January 2020 for City of Kent review.

In February 2020 the project team will go to the ST Board to "Select the Project to be Built" followed by "Phase Gate 3: Enter Design and Construction" in early March 2020.

Upcoming activities are Initial Drafts for Preliminary Hazards Analysis (PHA), Threat Vulnerability Assessment (TVA) and project specific Safety/Security Management Plan (SSMP). Design-Build Contractor NTP is forecast for Q3 2021. Open For Service is forecast for Q4 2024.

tivity ID	Activity Name	Start	Finish	04	2019 Q1 Q2 Q3 Q4	011	2020 22 Q3 Q4	-	2021	01	2022 Q2 Q3	04 0	202 1 Q2 0	-	2 Q1 Q2	024
Sound Tra	insit	24-Feb-16A	14-Nov-24	0.4	41 42 43 44	101	42 43 44		2 43 44		42 43	44		20 04	41 42	10010
Sound Tran	isit 2	24-Feb-16A	14-Nov-24	-		-	-	-	-	-	-	-	-	-	-	
South Corr	ridor	24-Feb-16A	14-Nov-24	-	-	-		-	-	-					-	-
S300035 - I	Kent Station Access Improvements - DB M	24-Feb-16 A	14-Nov-24	-	-		-	-	-	-		-		-	-	-
Alternative	e Analysis (Phase I)	24-Feb-16 A	15-Nov-17 A													
Conceptu	al Engineering (Phase II)	22-Mar-18 A	25-Aug-20	-		A D I I I I			******							
Prelimina	ry Engineering (Phase III)	13-Dec-18A	24-Sep-20							1.1						
Permits an	nd Agreements	01-Apr-19A	26-Feb-22		-			-		-						
Right of W	Vay	01-Jan-20 A	26-May-22		1.	+	-	-	-	-	-					
Design/Bu	uild Project Management	02-Jan-20 A	18-Apr-24			+		-	-	-			-	-	-	
DBPM Con	tract Procurement	02-Jan-20 A	13-Feb-20			-				1						
DBPM Des	ign/Construction Services/Support	04-Mar-20	18-Apr-24			-	-			1		-		-	-	
Design/Bu	uild Contract	21-Sep-20	18-Apr-24					-		-				-	-	
DB Contra	ct Procurement	21-Sep-20	31-Aug-21				-	-	-							
Design/Bui	ild - Design and Construction	31-Aug-21	18-Apr-24						-	1					-	
Post Cons	struction	19-Apr-24	14-Nov-24													
Transition 1	to Operations	19-Apr-24	18-May-24												-	
Project Flo	at	19-May-24	14-Nov-24													
Open For S	Service	14-Nov-24	14-Nov-24													



#### **Community Outreach**

Continued to inform affected property owners and businesses of proposed property acquisitions and temporary easements, in advance of Sound Transit Board action on February 27, 2020.

#### **Staffing Summary**

The planned Full-Time Equivalent (FTE) is an annual projection of ST project staff and consultants. Planned FTE are an annual projection and remains constant from month to month. The Year-to-Date (YTD) Performance is the total actual FTEs accumulated through this reporting period. Staffing status is summarized in the following table.

The environmental assessment process was completed in October 2019. The project team plans to seek the ST Board approved to "Select the Project to be Built" was rescheduled from January 2020 to February 2020. The project team and consultants level of effort was lower for the month in January 2020.

Resource Type	Planned FTE Monthly Average	YTD Actual FTE Monthly Average	Variance			
ST Staff	5.5	2.7	(2.8)			
Consultants	3.8	2.1	(1.7)			
TOTAL	9.3	4.3	(4.5)			
* An FTE is the equivalent of 2080 hours. YTD performance FTE hours are divided by a monthly factor of 173.33.						

Board Action	Description	Date
	None this period.	



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# Sounder Commuter Rail Puyallup Station Access Improvements



## **Project Summary**

Scope	The purpose of the project is to improve access to the existing Puyallup Sounder station for Sounder riders, bicyclists, bus riders, and drivers.
	The proposed project includes an up to 5 level parking garage and an expansion of a surface lot; together both shall provide a minimum of 600 total stalls. The project also includes a pedestrian bridge over 5th St. NW.
Phase	Final Design and Construction
Budget	\$79.1 Million
Schedule	Open for Service: Q1 2022



Improving access to Sounder Puyallup Station

#### **Key Project Activities**

- Design Build contract awarded to Hensel Phelps in December 2019
- Design Build contract Notice To Proceed (NTP) projected for February 2020
- Update of project schedule is underway due to ongoing negotiations with the City impacting previously forecast Design Build Notice To Proceed (NTP) date. Open For Service date may be delayed beyond February 2022.

#### **Project Cost Summary**

The project cost is summarized below in accordance with Sound Transit's budget Work Breakdown Structure (WBS). The figures shown are in millions.

#### Cost Summary by Phase

Project Phase	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$4.6	\$1.9	\$1.9	\$4.6	\$0.0
Preliminary Engineering	\$2.9	\$2.7	\$2.5	\$2.9	\$0.0
Final Design	\$0.2	\$0.0	\$0.0	\$0.2	\$0.0
Construction Services	\$5.2	\$4.9	\$0.3	\$5.2	\$0.0
3rd Party Agreements	\$2.2	\$0.0	\$0.0	\$2.2	\$0.0
Construction	\$58.4	\$0.1	\$0.0	\$58.4	\$0.0
ROW	\$5.6	\$4.6	\$4.6	\$5.6	\$0.0
Total	\$79.1	\$14.2	\$9.3	\$79.1	\$0.0



#### **Risk Management**

The Risk and Contingency Management Plan (RCMP) establishes a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It provides a tool for the project team to proactively manage risks on the project. It is Sound Transit's responsibility to continuously monitor project status and associated risks.

The following are the top project wide risks:

- Environmental Contamination (Soil &/or Water). *Risk mitigation*: A work plan has been included in the procurement documents to mitigate and address remediation of contaminated materials. This will be the first line of work the contractor will perform when they are approved to proceed with Construction.
- Real Estate / Right-of-Way having parcels in-hand before contract award. *Risk mitigation:* Real Property representative and Project Manager regularly monitor progress and discuss status of all ROW acquisitions.
- Development Agreement process As a result of the still undefined development agreement language and process, the permit could be delayed. *Risk mitigation*: The DA document will be finalized before issuance of project NTP.

## **Project Schedule**

Design Build contract awarded to Hensel Phelps in December 2019, Notice To Proceed (NTP) to Hensel Phelps is planned for Q1 2020. Right of way acquisitions are in progress and are forecast to be completed in advance of the planned construction start need by dates. Open For Service date may be delayed beyond February 2022 due to negotiations with the City delaying previously forecasted Design Build Notice To Proceed (NTP) date. Schedule updates are underway and will be reviewed further after Design Build NTP.

tivity ID	Activity Name	Start	Finish		7.1	2019	1.7		2020	2	2021	
				Q4	Q1	Q2 Q3	3 Q4	Q1 Q	2 Q3 Q4	4 Q1 Q	2 Q3 C	4 Q1
Sound Tra	ansit	01-May-15 A	24-Feb-22					1				
Sound Tran	nsit 2	01-May-15A	24-Feb-22						-	-	-	-
South Cor	ridor	01-May-15A	24-Feb-22						-		-	-
S300017 -	Puyallup Station Access and Expansion - DB N	01-May-15A	24-Feb-22	-			-			-		-
Alternativ	e Analysis (Phase I)	28-Apr-16 A	28-Apr-16 A									
Prelimina	ry Engineering (Phase III)	01-May-15A	20-Mar-19 A		-							
Right of V	Nay	26-May-16 A	30-Nov-21	-	1	-	-			-	-	7
Permits a	nd Agreements	15-Jul-16 A	30-Dec-20	-	-		-		-	•		
Design/B	uild Project Management	17-Sep-18A	14-Feb-22				-			-	-	-
Design/B	uild Contract	01-Oct-18 A	14-Feb-22		1				-			-
DB CCB R	RFQ	01-Oct-18 A	26-Dec-18A	-								
DB Contra	act Procurement	17-Dec-18 A	28-Feb-20									
Design/Bu	ild - Design and Construction	28-Feb-20	14-Feb-22					-	-			-
Post Con	struction	31-Dec-21	24-Feb-22									-
Transition	to Operations	31-Dec-21	14-Feb-22									-
Project Flo	pat	15-Feb-22	24-Feb-22					1		1		
Open For S	Service	24-Feb-22	24-Feb-22		-							



#### **Community Outreach**

• Planned for construction outreach activities, including meetings with stakeholders and communications materials.

#### **Staffing Summary**

The planned Full-Time Equivalent (FTE) is an annual projection of ST project staff and consultants. Planned FTE are an annual projection and remains constant from month to month. The Year-to-Date (YTD) Performance is the total actual FTEs accumulated through this reporting period. Staffing status is summarized in the following table.

• Due to negotiations with the City and Property Owners, the previously forecasted Design Build Notice To Proceed (NTP) is delayed; resulting in a variance.

Resource Type	Planned FTE Monthly Average	YTD Actual FTE Monthly Average	Variance			
ST Staff	5.0	1.9	(3.1)			
Consultants	4.7	1.4	(3.3)			
TOTAL	9.7	3.3	(6.4)			
* An FTE is the equivalent of 2080 hours. YTD performance FTE hours are divided by a monthly factor of 173.33.						

Board Actio	on Description		Date
		None this period.	



# Sounder Commuter Rail Sounder Maintenance Base

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# **Sounder Commuter Rail Sounder Maintenance Base**



88th St SW

94th St SW

96th St SW

100th St SW

101st St SW

Steilacoom Blvd SW

## **Project Summary**

Scope	Sound Transit will design and construct a Sounder Commuter Rail maintenance facil- ity and train yard elements that will in- clude: maintenance shops, repair positions, storage areas, office and employee welfare facilities. Located in Lakewood, WA on Sound Transit's railroad right of way between Steilacoom Boulevard and 100th Street	Sounder Rail Sounder Maintenance Base Sounder service Seattle-Tacoma-Lakewood Seattle-St SW EB Sounder Service Sounder Service Seattle-Tacoma-Lakewood	39th Ave Cr SW 39th Ave SW
Phase	Design and Construction	420	2024 MS ave thos
Budget	\$12.9 Million	100th St SW	101st St St
Schedule	Open for Service: Q4 2024	Sounder Maintenance Base Pro	ject Alignment

#### **Key Project Activities**

The Design-Build Project Management (DBPM) consultant is developing the design build project requirements, building program, and other procurement documents.

- The project team and the preliminary engineering consultant are performing environmental analysis to determine the impact of the new project changes. These project changes include the a new "run-through" facility layout, co-location of the Maintenance of Way building on the site, accommodation of ST3 storage needs, and the purchase of a adjacent parcel.
- Continued development of cost agreements with Tacoma Power to relocate their utilities off Sound Transit's railroad right . of way.
- Project has successfully proceeded through Phase Gate 4 to establish project baseline budget and schedule. •



Brake pads are replaced on a Sounder car.



Air filters are changed at the Sounder maintenance base in Seattle



#### **Project Cost Summary**

The project cost is summarized below in accordance with Sound Transit's budget Work Breakdown Structure (WBS). The figures shown are in millions.

This period expenditures increased approximately \$412K. The majority of this period's costs are attributed to staff costs in the Admin phase; for conceptual engineering tasks, including geotechnical investigations in the Preliminary Engineering Phase; Phase 1 Design-Build Project Management Services; and Right-of-Way activities, including temporary construction easement appraisals.

Project Phase	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$2.3	\$1.9	\$1.9	\$2.3	\$0.0
Preliminary Engineering	\$3.6	\$3.1	\$2.6	\$3.6	\$0.0
Final Design	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Services	\$2.0	\$2.0	\$0.6	\$2.0	\$0.0
3rd Party Agreements	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction	\$2.0	\$0.0	\$0.0	\$2.0	\$0.0
ROW	\$3.0	\$2.4	\$2.2	\$3.0	\$0.0
Total	\$12.9	\$9.5	\$7.3	\$12.9	\$0.0

#### **Cost Summary by Phase**

#### **Risk Management**

The Risk and Contingency Management Plan (RCMP) establishes a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It provides a tool for the project team to proactively manage risks on the project. It is Sound Transit's responsibility to continuously monitor project status and associated risks.

The project team conducts quarterly risk management workshops to identify, update, and monitor potential risks during design and construction. The project team completed a quantitative risk analysis to evaluate confidence in the current budget and schedule. The analysis will establish contingency levels and schedule float for the project baseline, which is to occur in March 2020. The analysis has identified the following as the top project risks and proposed mitigations:

- Advanced utility relocation delays *Risk Mitigation*: Execute agreements with the utility companies in advance of the design-build team mobilizing. Monitor progress on a regular basis.
- Potential differing site conditions *Risk Mitigation*: Complete additional geotechnical investigations.
- Implementing new form of contracting: Design Build Guaranteed Maximum Price Contract. *Risk Mitigation*: Work closely with Design Build Project Management and Sound Transit team to modify contract documents. Seek Sound Transit sponsorship to accomplish timely review and approval of changes.
- ROW acquisition delay *Risk Mitigation*: Monitor Sound Transit Real Estate negotiations and obtain possession and use of property being acquired.



#### **Project Schedule**

Sounder Maintenance Base is anticipated to be to open for service in Q4 2024. The revised conceptual engineering (10%) design submittal and cost estimate were completed previously. In late Q1 2019 a value engineering effort on the current 10% design was initiated, in late Q3 2019 a value engineering option was approved to proceed forward, which is for a "run-through" design. Draft Design-Build Project Requirements for Design-Build Procurement are being developed and will be incorporated into the planned Q2 2020 Issue Design-Build Request For Qualifications (RFQ) and finalized for the Request For Proposal (RFP). The project team anticipates issuing Design/Build Notice to Proceed in Q1 2021.

vity ID	Admity Name	Start	Finish	2019	2020	2021	2022	2023	2024
				Q Q2 Q3 Q4	01 0 03 0-	01 0 03 04	01 0 03 04	01 0 03 04	01 0 03 0
Sound Transi	it	01-Apr-13 A	31-Dec-24		1				
Sound Transit 2	2	01-Apr-13A	31-Dec-24		1	-			
South Corrido	r	01-Apr-13 A	31-Dec-24						
S300004 - Sou	nder Maintenance Base - Design/Build MS	01-Apr-13A	31-Dec-24	<u> </u>		-	-	-	_
Conceptual E	ngineering	29-Jul-13A	21-May-18 A						
Environmenta	al Assessment	01-Apr-13.A	12-Mar-20				************		
Environmental	Assessment (2014-2015)	01-Apr-13A	30-Jan-15-A						
Environmental	Assessment (2017-2018)	30-Apr-17 A	04-May-18 A						
Environmental	Assessment (2019-2020)	02-Dec-19 A	12-Mar-20		-				
Preliminary E	ngineering	01-Jun-14 A	23-Apr-20						
Permits and A	greements	02-Jan-19 A.	21-Feb-20	-	T				
<b>Right of Way</b>		08-Jul-16A	20-Dec-21			-			
Design Build	Project Management Services +	01-Aug-18A	31-Dec-24						
Third Party Ut	ility Relocation and Misc Construction	30-Aug-19 A	29-Mar-24	-					-
SMB - Design	Build Procurement, Design and Construction	02-Jan-20 A	29-Mar-24	1					-
SMB - Design/B	Build Procurement Admin	02-Jan-20 A	29-Apr-20						********
SMB - Design/B	suild Procurement	30-Apr-20	18-Feb-21		-	-			
SMB - Design/B	Build Design and Construction	19-Feb-21	29-Mar-24			-			-
Rail Activation	1	26-Apr-23	26-Apr-24					-	-
SMB - Post Co	onstruction	01-Apr-24	31-Dec-24	a constant of			·····		
SMB - Transitio	n to Operations	01-Apr-24	29-Apr-24						*
SMB - Project F	loat	30-Apr-24	31-Dec-24						-
SMB - Project C	Completion	31-Dec-24	31-Dec-24						
Sounder Ops	Maintainer Agreement	21-Jul-20	28-Apr-24					-	-
Sounder Ops M	laintainer Procurement	21-Jul-20	20-Jul-22						
Sounder Ops M	laintainer - Maintenance	27-Nov-22	28-Apr-24				•		
Amtrak Mainte	enance Agreement	31-Dec-21	30-Dec-24			1 3	-		

## Community Outreach

• Sound Transit is monitoring outreach needs for the project and the Outreach Team is available to answer any questions from the public.



#### **Staffing Summary**

The planned Full-Time Equivalent (FTE) is an annual projection of ST project staff and consultants. Planned FTE are an annual projection and remains constant from month to month. The Year-to-Date (YTD) Performance is the total actual FTEs accumulated through this reporting period. Staffing status is summarized in the following table.

The variance is due to limited availability of Sound Transit subject matter experts. This limited availability is being supplemented by the Design Build Project Management Consultant, therefore explaining the variance in the consultant projections.

Resource Type	Planned FTE Monthly Average	YTD Actual FTE Monthly Average	Variance
ST Staff	8.1	4.6	(3.5)
Consultants	2.3	3.8	1.5
TOTAL	10.4	8.6	(1.8)

An FTE is the equivalent of 2080 hours. YTD performance FTE hours are divided by a monthly factor of 173.33.

Board Action	Description	Date
	None to report.	

# Sounder Commuter Rail Sounder South Capacity Expansion



Seattle

#### **Project Summary**

Scope	This project will establish a program of capital elements that will be used to en- hance South Sounder access, capacity, and services in response to increased demand. Program elements could include platform extensions, track and signal upgrades and other related infrastructure to facilitate ad- ditional capacity, and access elements such as improvements for pedestrians, bicyclists, buses, and private vehicles, prioritized per Sound Transit's System Access Policy. Once the Sounder Strategic Development and Implementation Plan is complete then the capital projects included in this repre- sentative program will be refined.	P Existing parking P Added parking Station improvements by 2023 DPOnt extension (opens 2036) Sound Transit district Tacoma South Tacoma Tacoma Dome
Phase	Planning	Lakewood Tillicum(p)
Budget	\$3.6 Million	DuPont 2000 transit
Schedule	Open for Service: 2036	Sounder South Capacity map alignment

Sounder South

#### **Key Project Activities**

- Sound Transit conducted two week external engagement outreach to seek comments from the public on the draft Sounder South Strategic Development and Implementation Plan. This included an online open house survey for the public to complete.
- Project Team held corridor leadership forum with elected officials, inter-agency staff and railroad organizations stakeholders coordination meetings to brief them on the draft Sounder South Strategic Development and Implementation Plan.



Possible platform and track improvements



Sounder South Tukwila Station showing access elements



#### Project Cost Summary

The project cost is summarized below in accordance with Sound Transit's budget Work Breakdown Structure (WBS). The figures shown are in millions.

Since January 2019, the project costs incurred to date is \$94K. The majority of those costs is for creation of the strategic development and implementation plan and staff costs. Additional funding of \$998K was added to the project in January 2020 to support the development of the Strategic Development Implementation Plan.

#### **Cost Summary by Phase**

Project Phase	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$1.2	\$0.7	\$0.7	\$1.2	\$0.0
Preliminary Engineering	\$2.0	\$1.7	\$1.1	\$2.0	\$0.0
Final Design	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Services	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
3rd Party Agreements	\$0.4	\$0.0	\$0.0	\$0.4	\$0.0
Construction	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Total	\$3.6	\$2.4	\$1.8	\$3.6	\$0.0

#### **Risk Management**

The Risk and Contingency Management Plan (RCMP) establishes a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It provides a tool for the project team to proactively manage risks on the project. It is Sound Transit's responsibility to continuously monitor project status and associated risks.

There are no risks identified at this time.



#### Project Schedule

Baseline Schedule was approved in September 2019. Sound Transit is expected to complete Alternative Analysis - Phase I by end of Q3 2020. Phase II – Conceptual Engineering to commence in Q4 2020 . Final Design is expected to start by end of Q2 2022 and Construction by end of Q1, 2024. Revenue Service Date is 2036.

Activity ID	Activity Name	Start	Finish	2020	2021	2022	2023	2024	2025	2026	2027	),
					0000	0000	adada	QQQQ			QQQC	Q
Sounder Sout	th - Platform Extensions	13-Jun-18 A	30-Dec-36									
Sounder So	uth Platform Extensions	13-Jun-18 A	30-Dec-36									-
Alternative	Analysis - (Phase I)	13-Jun-18 A	26-Mar-20	-								
Conceptua	I Engineering/Environmental - (Ph	27-Mar-20	21-Nov-21	<b>-</b>	_	r						
Preliminary	y Engineering - (Phase III)	22-Nov-21	22-Sep-22		1							
Final Desig	jn	30-Jun-22	24-Mar-24			-		-				
ROW		22-Mar-22	19-Feb-24			•		-				
Constructio	on	25-Mar-24	24-Nov-27					-				7
Post Const	truction	25-Nov-27	30-Dec-36								•	•
Project F	Float	25-Nov-27	30-Dec-36									e
Revenue	e Service	30-Dec-36	30-Dec-36									

#### **Community Outreach**

- Held online open house January 23 through February 6 to share draft Strategic Development and Implementation Plan with the public and gather feedback.
- Publicized the online open house through media, social media, signage, and email lists, and generated over 3,600 visitors and over 600 survey responses.

## **Staffing Summary**

The planned Full-Time Equivalent (FTE) is an annual projection of ST project staff and consultants. Planned FTE are an annual projection and remains constant from month to month. The Year-to-Date (YTD) Performance is the total actual FTEs accumulated through this reporting period. Staffing status is summarized in the following table.

Planned FTE estimate assumed all expansion improvements would be underway by January 2020. Due to delayed start there is a variance in ST Staff Actual FTE. Consultant FTE is higher as the team is staying through March 2020 and the planned FTE is an estimate for the entire 2020 year.

Resource Type	Planned FTE Monthly Average	YTD Actual FTE Monthly Average	Variance
ST Staff	13.4	4.1	(9.3)
Consultants	0.7	1.6	0.9
TOTAL	14.1	5.7	(8.4)
* An FTE is the equivalent of 208	0 hours. YTD performance FTE hour	s are divided by a monthly factor of 1	173.33.



Board Action	Description	Date
	None this period.	

# Sounder Commuter Rail Sumner Station Access Improvements



Scope	The purpose of the project is to provide increased access to parking by adding 505 net new spaces and new bus loop.
	Project includes alternative identification, screening, environmental documentation, design and construction of station access improvement at or around Sumner Station.
Phase	Preliminary Engineering
Budget	\$17.8 Million
Schedule	Open for Service: 2023



Improving access to Sounder Sumner Station

#### **Key Project Activities**

- Continued drafting Design-Build procurement documents.
- Completed negotiations with parcel owners for relocation and acquisition.
- Approach to baselining has received a exception from Project Controls to take place post Design Builder selection.

#### **Project Cost Summary**

The project cost is summarized below in accordance with Sound Transit's budget Work Breakdown Structure (WBS). The figures shown are in millions.

This period expenditures increased by \$1.1M. The incurred cost increased from \$8.7M to \$9.8M. This period's costs are attributed to staff costs, third party agreements, property acquisition, engineering design work, project requirements and drafting the construction RFP.

#### **Cost Summary by Phase**

Project Phase	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$2.2	\$1.5	\$1.5	\$2.2	\$0.0
Preliminary Engineering	\$3.0	\$2.6	\$2.5	\$3.0	\$0.0
Final Design	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Services	\$0.4	\$0.0	\$0.0	\$0.4	\$0.0
3rd Party Agreements	\$7.7	\$7.6	\$1.7	\$7.7	\$0.0
Construction	\$0.1	\$0.1	\$0.1	\$0.1	\$0.0
ROW	\$4.4	\$4.2	\$4.0	\$4.4	\$0.0
Total	\$17.8	\$16.0	\$9.8	\$17.8	\$0.0





#### **Risk Management**

The Risk and Contingency Management Plan (RCMP) establishes a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It provides a tool for the project team to proactively manage risks on the project. It is Sound Transit's responsibility to continuously monitor project status and associated risks.

The Project performed a quantitative risk assessment in Q4 2019. The following are the top project wide risks:

- Third Party Agreements to be finalized before contract award. Risk mitigation ST staff has finalized a draft of the Conditional Use Permit (CUP); readying for a meeting with the City once key open issues have been addressed.
- Environmental-Contamination (Soil &/or Water). Risk mitigation- Inclusion of a work plan has been included in the procurement documents to mitigate and address remediation of contaminated materials. This will be the first line of work the Contractor will perform when they are approved to proceed with construction.

#### **Project Schedule**

The project team is continuing work on Preliminary Engineering, to be completed in Q1 2020. Right of way acquisitions are in progress and are forecast to be completed in advance of the area of construction needed for the Design-Build contractor's construction activities. Procurement of the Design-Build contractor is forecast to start in Q1/Q2 2020, with Issue Design-Build Request For Qualifications (RFQ) planned for 1st half of 2020 and design-build contractor Notice To Proceed (NTP) forecast for Q1 2021. The projected Open For Service date is 2023.

divity ID	Activity Name	Start Finish			2019	1	202	0	2021			2022				2023		
		1		Q4 Q1	Q2 Q3 Q4	4 Q1	Q2 (	Q3 Q4	Q1	Q2 Q	3 Q4	Q1	Q2 Q	3 Q4	Q1	Q2 Q3		
Sound Transit		01-May-15 A	25-Aug-23			1												
Sound Transit 2		01-May-15A	25-Aug-23		-			-	-		-	-		-	-	-,		
South Corridor		01-May-15 A	25-Aug-23		-			-			-			-		,		
S300018 - Sumner S	Station Parking and Access Improver	01-May-15 A	25-Aug-23		-		-	-	-		-		-	-	-	-		
Alternative Analysis	s (Phase I)	01-May-15 A	26-May-16 A						-									
Conceptual Engine	eering (Phase II)	01-May-15 A	14-Mar-16 A															
Preliminary Engine	eering (Phase III)	14-Jul-16 A	21-May-20				-											
Right of Way		22-Sep-16 A	18-Aug-21				-			-								
Permits and Agree	ments	01-Mar-16 A	30-Oct-20		_		-	-										
Design-Build Proje	ect Management	27-Mar-20	07-Feb-23												-			
Design/Build Cont	ract	27-Sep-19A	07-Feb-23		-										-			
DB Contract Procure	ment	27-Sep-19A	02-Feb-21		-				-									
Design/Build - Design	n and Construction	03-Feb-21	07-Feb-23						-						-			
Post Construction		07-Feb-23	25-Aug-23															
Transition to Operation	ons	07-Feb-23	07-Feb-23												•			
Project Float		08-Feb-23	25-Aug-23												-			
Open For Service		25-Aug-23	25-Aug-23													,		



#### **Community Outreach**

• Planning for future outreach activities, including summer fairs and festivals, and construction outreach.

#### **Staffing Summary**

The planned Full-Time Equivalent (FTE) is an annual projection of ST project staff and consultants. Planned FTE are an annual projection and remains constant from month to month. The Year-to-Date (YTD) Performance is the total actual FTEs accumulated through this reporting period. Staffing status is summarized in the following table.

Variance between the planned and actual FTE figures is the result of the project's baselining being delayed. Once the project has been baselined actual staffing numbers are expected to rise to meet the planned.

Planned FTE Monthly Average	YTD Actual FTE Monthly Average	Variance
6.0	3.1	(2.9)
1.6	0.1	(1.5)
7.6	3.2	(4.4)
	6.0 1.6	6.0         3.1           1.6         0.1

* An FTE is the equivalent of 2080 hours. YTD performance FTE hours are divided by a monthly factor of 173.33.

Board Action	Description	Date
	None this period.	



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# Progress Report Regional Express & Bus Rapid Transit Program







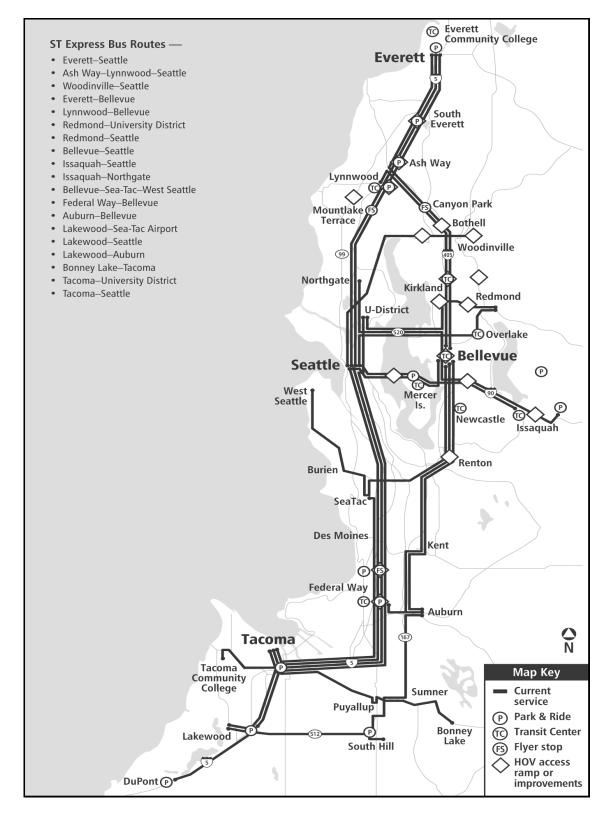


ST Express Bus routes connects major regional hubs throughout the three counties (King, Pierce, and Snohomish)



Prepared by Project Control & VE | Design, Engineering & Construction Management





ST Regional Express Bus Routes

# **Regional Express & Bus Rapid Transit Program Overview**



**ST Express Bus Base:** Sound Transit is evaluating the need for an operations and maintenance base. Project development activities include confirmation of fleet operations; facilities and site programming; and identification of site alternatives. Project is currently on hold, but being re-evaluated by senior management.

**I-405 Bus Rapid Transit:** This project establishes Bus Rapid Transit (BRT) from the Lynnwood Transit Center to Bellevue Transit Center and Burien Transit Center via I-405 and SR 518. The project relies on the I-405 express toll lane system where available, and Business Access Transit (BAT) lanes on SR 518 from Tukwila to Burien. Project elements include parking, station access improvements, and 11 pairs of stations, including a new transit center in South Renton and new stations at Northeast 85th Street with connection to Downtown Kirkland and at Northeast 44th Street in Renton.

**Bus Base North**: This project establishes the operations and maintenance facility necessary to support to support BRT operations.

**SR522 Bus Rapid Transit:** This project establishes BRT from the Link station at I-5 and Northeast 145th Street to UW Bothell, with service continuing at lower frequencies to Woodinville. On Northeast 145th Street, this project includes transit priority spot treatments to facilitate BRT movement through corridor bottlenecks. On SR 522 the majority of the corridor through Lake Forest Park, Kenmore and Bothell will feature BAT lanes, with transit-supportive enhancements on arterials from downtown Bothell to UW Bothell. This project includes nine pairs of stations, with additional parking at Lake Forest Park, Kenmore and Bothell and an expanded transit center at UW Bothell.

**Bus on Shoulder:** This program provides opportunities for buses to use shoulders on freeway and state route facilities during periods of congestion in general traffic and/or HOV lanes. This program will require coordination and further study with transit partners, WSDOT and Federal Highway Administration in order to determine locations where Bus on Shoulder may be feasible.

**I-90 Two-Way Transit and HOV Operations (Stage 3):** Stage 3 provides for two-way transit/HOV operations on I-90 between 80th Avenue SE and Rainier Ave. Following completion of the Stage 3 project, the center roadway was closed to traffic to allow construction of East Link Extension. Project detail page is located under the Link light rail section of this report.



#### Program Budget

The Authorized Project Allocation reflects the budget for each project through the approved project phase, meaning that for projects approved for Final Design activities only, the project budget will be amended at some point to add budget for construction activities.

REGIONAL EXPRESS AND BRT	Authorized Allocation	Commitment To Date	Incurred to Date	Forecast to Complete	Estimated Final Cost	Authorized Allocation vs EFC
ST EXPRESS BUS BASE	\$5.8	\$3.2	\$1.2	\$2.7	\$5.9	\$0.00
I-405 BRT	\$226.1	\$180.9	\$65.9	\$45.2	\$226.1	\$0.00
BUS BASE NORTH	\$48.7	\$26.5	\$25.9	\$22.2	\$48.7	\$0.00
SR 522-NE 145th ST BRT	\$64.4	\$36.5	\$14.2	\$27.9	\$64.4	\$0.00
BUS ON SHOULDER PROJECT	\$3.9	\$0.8	\$0.8	\$3.1	\$3.9	\$0.00
REX I-90 2 WAY TRANS& HOV III	\$225.6	\$209.6	\$195.1	\$12.4	\$222.0	\$3.7
TOTAL REX & BRT	\$280.6	\$210.6	\$93.0	\$70.1	\$280.7	\$3.7

Figures are shown in millions

#### **Program Schedule**

Schedule for BRT projects are summarized below.

#### Schedule Snapshot

Project Name	Start	Finish		2020	)	202	1	20	22	20	)23	2	024	20	25
			QQ	QQ	QC	QQ	Q	QQ	QC	QQ	QC	200	200	QQ	Q
Sound Transit	01-Jan-18 A	02-Oct-25				$\square$				$\square$	$\square$	$\square$			$\square$
Sound Transit 3	01-Jan-18 A	02-Oct-25							╈	$\square$	$\square$	$\square$			Ш
	26-Feb-18 A	02-Oct-25							+	$\square$	Ħ	$\square$			Ш
STRIDE - Bus Rapid Transit - North Corridor	26-Feb-18 A	02-Oct-25				$\square$			$\top$		Ħ	$^{++}$			$\square$
STRIDE Master Schedule	14-Feb-20	02-Oct-25													
STRIDE - SR 522/NE 145th Bus Rapid Transit (BRT)	26-Feb-18 A	09-Feb-25													
SR 522/NE 145th BRT - Preliminary Engineering	26-Feb-18 A	11-May-21													
SR 522/NE 145th BRT - Final Design	31-Jul-19 A	15-Jun-22													
SR 522/NE 145th BRT - Third Party Agreements and Permitting	10-Apr-20	20-Jul-22							]						
SR 522/NE 145th BRT - Right of Way (ROW)	24-Apr-20	30-Jan-23		÷					-	<b>-</b>					
SR 522/NE 145th BRT - Construction	07-Jan-19 A	09-Feb-25							-				++		
♦ ST3 - East Corridor	01-Jan-18 A	02-Oct-25													
STRIDE - Bus Rapid Transit - East Corridor	01-Jan-18 A	02-Oct-25				Π					Π				$\square$
STRIDE - 1405 Bus Rapid Transit (BRT)	01-Jan-18 A	02-Oct-25				Π					Π				$\square$
🔺 1405 BRT - Preliminary Engineering	02-Mar-18 A														
405 BRT - Final Design - GEC (General Engineering Contract)	31-Jul-19 A	15-Jun-22													
1405 BRT - Third Party Agreements and Permitting	11-Apr-20	26-May-22		<b>–</b>											
🔺 1405 BRT - Right of Way (ROW) / Property Acquisition	18-Mar-21	24-Jun-24				÷			-						
▲ 1405 BRT - Construction	01-Jan-18 A	31-Jan-25							-				t h		
STRIDE - BRT - Bus Base North	08-Apr-19 A	12-Apr-24				÷			-						
STRIDE - BBN - Maintenance Provider	20-Jul-21	04-Jun-24													Ш
STRIDE - BRT - BRT Coaches- Procurement and Delivery	26-Jun-20	17-Apr-23													Ш
STRIDE - BRT - Intelligent Transportation System (ITS)	18-Mar-21	04-Apr-25				÷									
STRIDE - BRT - Service Line Activation	13-Apr-24	02-Oct-25				ΙT									ĦT

# Regional Express & Bus Rapid Transit ST Express Bus Base



#### **Project Summary**

Scope	Sound Transit is evaluating the need for an operations and maintenance base. Project development activities include confirma- tion of fleet operations, facilities and site programming, and identification of site alternative	
Phase	Planning	
Budget	\$5.8 Million	ST. Express bus maintenance performed by transit partners
Schedule	Project is on hold	51. Express ous maintenance performed by transit partners

#### **Key Project Activities**

- Sound Transit Executive Leadership is evaluating the need for an operations and maintenance base.
- Sustainability is completing a \$125K study of Battery-Electric Buses to develop an agency-wide implementation plan for future transition to Battery Electric Buses. Work will begin in 2020.

## **Project Cost Summary**

The project cost is summarized below in accordance with Sound Transit's budget Work Breakdown Structure (WBS). The figures shown are in millions.

#### **Cost Summary by Phase**

Project Phase	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$0.8	\$0.4	\$0.4	\$0.8	\$0.0
Preliminary Engineering	\$4.8	\$2.7	\$0.8	\$4.8	\$0.0
Final Design	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Services	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
3rd Party Agreements	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$0.2	\$0.0	\$0.0	\$0.2	\$0.0
Total	\$5.8	\$3.1	\$1.2	\$5.8	\$0.0



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#### **Project Summary**

Scope	Launch a Bus Rapid Transit (BRT) system along the I-405 corridor.	C C
Limits	Approximately 37 miles between Lynnwood and Burien	1-405 B
Alignment	I-405 BRT will extend along the I-5, I-405 and SR 518 corridors. BRT will serve Lynnwood, Bothell, Kirkland, Bellevue, Renton, SeaTac, Tukwila, and Burien. Bus- es will operate in general purpose lanes, bus-only shoulders, high occupancy vehicle lanes, express toll lanes, and bus-only lanes.	Bus Rapid     BRT in servic     Station     Major transl     P New parking     Existing park     Link Light R     In service 20     Project subject to compare the service of the ser
Stations	Lynnwood City Center, Canyon Park, NE 195th-UW Bothell/Cascadia College, NE 160th/Brickyard, NE 128th/Totem Lake, NE 85th, Bellevue Transit Center, NE 44th, South Renton Transit Center, Tukwila In- ternational Blvd Station, Burien Transit Center	Seatt
Phase	Planning Phase 2: Environmental review and conceptual engineering	
Budget	I-405 BRT: \$226.1 Million Preliminary Engineering (Phases 1-3)	Bur Trai Cen 2024
Schedule	Revenue Service: 2024	



Map of Project Alignment

#### **Key Project Activities**

- Conducting environmental review of the Refined Project and completing conceptual engineering.
- Completed Inter-agency Value Engineering Studies for NE 85th Interchange and Brickyard.
- Developing partnering agreements and letters of concurrence.
- Working with WSDOT to advance environmental and design at 85th, Brickyard, SR 522, and Canyon Park.



#### Project Cost Summary

The project cost is summarized below in accordance with Sound Transit's budget Work Breakdown Structure (WBS). The figures are shown in millions.

This period expenditures are \$1.6M, of which \$0.2M was for staff (Admin), \$1.0M for project refinement activities in the PE phase, and \$400K for ROW administration and acquisitions. Project refinement activities include refining and analyzing multiple concepts for speed and reliability improvements, alternative routing options, and station locations throughout the system and various technical memorandums.

Project Phase	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$8.3	\$4.9	\$4.5	\$8.3	\$0.0
Preliminary Engineering	\$49.7	\$35.3	\$13.3	\$49.7	\$0.0
Final Design	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Services	\$0.8	\$0.0	\$0.0	\$0.8	\$0.0
3rd Party Agreements	\$1.0	\$0.2	\$0.3	\$1.0	\$0.0
Construction	\$130.2	\$118.4	\$24.4	\$130.2	\$0.0
ROW	\$36.2	\$47.9	\$23.4	\$36.2	\$0.0
Total	\$226.1	\$206.7	\$65.9	\$226.1	\$0.0

#### **Cost Summary by Phase**

#### **Risk Management**

The BRT Project Team will develop the Risk and Contingency Management Plan (RCMP) during Phase III - Preliminary Engineering phase of the project. The project team conducted a risk management workshop to identify all the potential risks during design and construction. The risk register will be updated and monitored quarterly.

The following are the top project risks and proposed mitigations:

- Completion of WSDOT's I-405 Renton to Bellevue Widening and Express Toll Lanes (ETL) Project. Risk Mitigation: Sound Transit participated in WSDOT's Design-Build process for the I-405 Renton to Bellevue Project as a proposal evaluation member and integrated BRT milestones into the WSDOT schedule. Sound Transit staff is participating in design and constructability reviews for BRT related facilities.
- Cost of the NE 85th BRT Station. Risk Mitigation: An ST lead Value Engineering study was held to further refine project scope.



#### **Project Schedule***

The I-405 BRT Project Refinement—Phase completed in Q2 2019. The next phase, Conceptual Engineering/Environmental review commenced in Q2 2019 with an anticipated completion in Q3 2020. Construction required for BRT service is anticipated to be complete in 2024.

The current critical path for the I-405 BRT project is the Bus Base North (BBN) Facility. The Bus Base North Facility will provide for the operation, storage and maintenance of the new I-405 BRT and SR 522/NE 145th BRT corridor bus fleet and needs to be completed before the delivery of new BRT buses.

*Construction for most of the BRT projects are expected to begin by 2023 and be completed by 2024. Construction of some elements will begin before 2023 and others may occur after service starts in 2024 and complete in 2025.

**Sound Transit contributed construction funding to Washington State Department of Transportation (WSDOT) for Sound Transit's portion of the I-405—Renton to Bellevue Widening and Express Toll Lanes project's Design-Build construction wherein the I-405 NE 44th Interchange will be constructed for the BRT inline station at that interchange. In 2019 WSDOT awarded the I-405—Renton to Bellevue Widening and Express Toll Lanes project's Design-Build contract.

Project Name	Start	Finish	2020	2021	2022	2023	2024	2025
			Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3
Sound Transit	01-Jan-18A	02-Oct-25						<u> </u>
Sound Transit 3	01-Jan-18A	02-Oct-25						
ST3 - East Corridor	01-Jan-18A	02-Oct-25						
STRIDE - Bus Rapid Transit - East Corridor	01Jan-18A	02-Oct-25						
STRIDE - 1405 Bus Rapid Transit (BRT)	01-Jan-18A	02-Oct-25						
1405 BRT - Preliminary Engineering	02-Mar-18A	17-Mar-21						
1405 BRT - Alternatives Analysis - Phase I	02-Mar-18A	29-Apr-19						
1405 BRT - Conceptual Engine ering/Environmental Review - Phase II	08-Apr-19A	27-Aug-20	<b></b>					
1405 BRT - Preliminary Engineering - Phase III	17-Mar-20	17-Mar-21	▽					
I-405 BRT - Final Design - GEC (General Engineering Contract)	31-Jul-19A	15Jun-22			⊽			
1405 BRT - Final Design - Procurement (GEC)	31-Jul-19A	12-May-20						
1405 BRT - Final Design - Design (GEC)	12-May-20	15-Jun-22	~		V			
1405 BRT - Third Party Agreements and Permitting	11-Apr-20	26-May-22	V					
1405 BRT - Right of Way (ROW) / Property Acquisition	18-Mar-21	24-Jun-24		~			V	
1405 BRT - Construction	01-Jan-18 A	31-Jan-25						
1405 BRT - Construction - North	01-Jan-18A	31-Jan-25						V
1405 BRT - Construction Roadway - North	01-Jan-18A	31-Jan-25						$\nabla$
1405 BRT - Poplar Way Loop Ramp Widening	15-Apr-22	09-Dec-24					ľ v	1
1405 BRT - Downtown Lynn wood Transit Signal Priority (T SP)	15-Apr-22	09-Dec-24					×	]
1405 BRT - Totern Lake Freeway Station Upgrade	15-Apr-22	09-Dec-24						
1405 BRT - WSDOT North Express Toll Lanes (ETL)	22-Aug-19A	30-Jun-24	-				V	
1405 BRT - WSDOT - 1405 NE 85th Interchange	01-Jan-18A	31-Jan-25						V
1405 BRT - Construction Parking Garages/Facilities/Transit Center- North	02-Dec-20	02-Sep-24						
1405 BRT - Lynnwood Transit Center BRT Stations	10-Jun-21	04-Feb-24	_	V			V	
1405 BRT - Kingsgate Parking Garage	02-Dec-20	02-Sep-24					<u> </u>	
1405 BRT - Bellevue Transit Center BRT Stations - DB	10-Jun-21	04-Feb-24		V			ſ^	Ţ
1405 BRT - Construction - South	29-Oct-18A	31-Dec-24						ľ.
1405 BRT - Construction Roadway - South 1405 BRT - WSDOT 1405 Renton to Bellevue Widening & Express Tol Lanes	29-Oct-18A	31-Dec-24						<u>ĭ</u>
1405 BRT - SR518 Corridor Improvements	29-Oct-18A	31-Dec-24						Ϋ́
1405 BRT - Construction Parking Garages Facilities /Transit Center- South	15-Apr-22	09-Dec-24			v			
1405 BRT - S. Renton Parking Garage/Station	02-Dec-20 02-Dec-20	28-Jun-24					v	
STRIDE - BRT - Bus Base North	02-Dec-20 08-Apr-19 A	28-Jun-24	v				v v	
BRT - Bus Base North - Preliminary Engineering	08-Apr-19A	12-Apr-24 05-Aug-20					Ň	
BRT - Bus Base North - Construction (D/B)	06-Aug-20	12-Apr-24	, v					
BRT - Bus Base North - DB Construction Procurement	06-Aug-20	20-Jul-21	,				·····	+
BRT - Bus Base North - Construction - Design / Build (DB)	20-Jul-21	12-Apr-24	Ť	, 			V	
STRIDE - BBN - Mainte nance Provider	20-Jul-21	04-Jun-24		, 			, V	
STRIDE - BRT - BRT Coaches-Procurement and Delivery	26Jun-20	17-Apr-23				V		
STRIDE - BRT - Intelligent Transportation System (ITS)	18-Mar-21	04-Apr-25	·	~				
STRIDE - BRT - Intelligent Trans portation System (IT S) - Procurement (DB)	18-Mar-21	12-Nov-21		VV				+····
STRIDE - BRT - Intelligent Transportation System (IT S) - Design / Build	13-Nov-21	04-Apr-25						
STRIDE - BRT - Service Line Activation	13-Apr-24	02-Oct-25					~	



## Community Outreach

Sound Transit is committed to proactively seeking public input during all stages of the I-405 BRT Project. The I-405 BRT Community Engagement Guide establishes a stakeholder engagement process that helps ensure priorities of local communities are heard and considered along with the project-wide goals. The BRT team will collaborate with elected officials, partner staff, and local communities throughout the project.

- Met with Interagency Advisory Group (partner staff).
- Held on-line open house.

## **Staffing Summary**

The planned Full-Time Equivalent (FTE) is an annual projection of ST project staff. Planned FTE are an annual projection and remains constant from month to month. The Year-to-Date (YTD) Performance is the total actual FTEs accumulated through this reporting period. Staffing status is summarized in the following table.

Planned FTE is annual projection. The variance in ST Staff level of effort will reduce once Phase 3 begins. Consultant FTE variance is due to higher level of effort needed to accelerate Phase 2 work.

Resource Type	Planned FTE Monthly Average	YTD Actual FTE Monthly Average	Variance			
ST Staff	16.6	11.6	(5.0)			
Consultants	16.2	20.2	4.0			
TOTAL	32.8	31.8	(1.0)			
* An FTE is the equivalent of 2080 hours. YTD performance FTE hours are divided by a monthly factor of 173.33.						

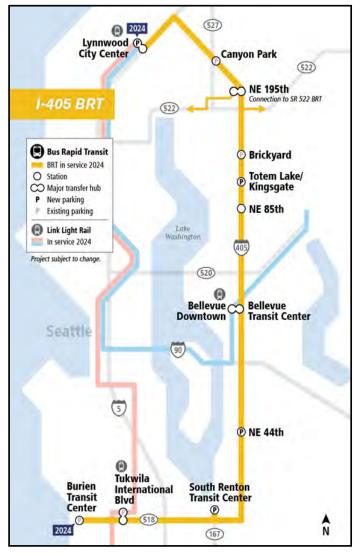
Board Action	Description	Date
	None to report.	

# **Regional Express & Bus Rapid Transit Bus Base North**



#### **Project Summary**

Scope	The Bus Base North will accommodate up to 120 buses to serve I-405 and SR 522/145th BRT and some ST Express routes.
Phase	Conceptual engineering/environmental review
Budget	\$48.7 Million
Schedule	Open for Service: 2023



Map of Project Alignment

#### **Key Project Activities**

- Conducting environmental review and completing conceptual engineering.
- Held pre-application meeting with Bothell for the Bus Base North.
- Procuring Bus Base North Design-Build Project Management team



#### Project Cost Summary

The project cost is summarized below in accordance with Sound Transit's budget Work Breakdown Structure (WBS). The figures are shown in millions.

This period expenditure increased by approximately \$100K primarily due to progress made by the consultant on preliminary engineering and environmental, Sound Transit Staff time and progress in Row activities.

#### **Cost Summary by Phase**

Project Phase	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$4.4	\$0.7	\$0.7	\$4.4	\$0.0
Preliminary Engineering	\$2.3	\$1.1	\$0.7	\$2.3	\$0.0
Final Design	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Services	\$12.6	\$0.0	\$0.0	\$12.6	\$0.0
3rd Party Agreements	\$0.2	\$0.0	\$0.0	\$0.2	\$0.0
Construction	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$29.2	\$24.7	\$24.6	\$29.2	\$0.0
Total	\$48.7	\$26.5	\$25.9	\$48.7	\$0.0

#### **Risk Management**

The BRT Project Team will develop the Risk and Contingency Management Plan (RCMP) during Phase III - Preliminary Engineering phase of the project. The project team conducted a risk management workshop to identify all the potential risks during design and construction. The risk register will be updated and monitored quarterly.

The following are the top project risks and proposed mitigations:

- Appeal of SEPA Checklist. Review draft SEPA checklist with City of Bothell staff to get their comments and concerns and address them. Ensure SEPA Checklist is legally defensible.
- Appeal of SEPA Checklist requires an EIS. Include an optional task in consultant contract for EIS preparation if necessary, saving time to initiate.
- Additional project requirements from AHJs. Ensure SEPA document is clear on whether an impact exists and level or impact



#### **Project Schedule**

Bus Base North site screening was conducted in 2019. Environmental review and conceptual engineering began in 2019, with anticipated issuance of the environmental review findings in Q3 2020.

A design-build project management procurement is active and will be followed by a design-build procurement in late 2020 or early 2021.

ivity Name	Start	Finish						_
			2019	2020	2021	2022	2023	202
			Q2 Q3 Q	Q4 Q1 Q2 Q3 Q	4 Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q	4 Q1 0
Sound Transit	21-Nov-17 A	12-Apr-24						
Sound Transit 3	21-Nov-17 A	12-Apr-24		-				+-
ST3 - East Corridor	21-Nov-17 A	12-Apr-24					+	+-
STRIDE - BRT - Bus Base North	21-Nov-17 A	12-Apr-24	<b></b>				+	+
BRT - Bus Base North - Preliminary Engineering	08-Apr-19A	21-Jul-21						
BRT - Bus Base North - Conceptual Engineering - Phase II	08-Apr-19A	05-Aug-20	<b>T</b>				1	
BRT - Bus Base North - Preliminary Engineering - Phase III	06-Aug-20	21-Jul-21						
BRT - Bus Base North Right of Way (ROW) / Property Acquisition	21-Nov-17 A	06-May-19 A	-					
BRT - Bus Base North - Design-Build Project Management (DBPM)	19-Aug-19 A	08-May-20						
BRT - Bus Base North - Construction (D/B)	06-Aug-20	12-Apr-24						
BRT - Bus Base North - D/B Construction Procurement	06-Aug-20	20-Jul-21		-			[	
BRT - Bus Base North - Construction - Design / Build (DB)	20-Jul-21	12-Apr-24			<b>v</b>		+	+

#### **Community Outreach**

Sound Transit is committed to proactively seeking public input during all stages of the BRT Project. The I-405 BRT Community Engagement Guide establishes a stakeholder engagement process that helps ensure priorities of local communities are heard and considered along with the project-wide goals. The BRT team will collaborate with elected officials, partner staff and adjacent property owners during the project. Sound Transit is working closely with the City of Bothell on the Bus Base North project.



## **Staffing Summary**

The planned Full-Time Equivalent (FTE) is an annual projection of ST project staff and consultants. Planned FTE are an annual projection and remains constant from month to month. The Year-to-Date (YTD) Performance is the total actual FTEs accumulated through this reporting period. Staffing status is summarized in the following table.

Actual FTEs are aligned with Planned FTE annual projection. Consultant staff are currently working on Phase 2 and Design-Build Project Management (DBPM) contract is planned to begin after Q2 2020.

Resource Type	Planned FTE Monthly Average	YTD Actual FTE Monthly Average	Variance			
ST Staff	5.5	5.1	(0.4)			
Consultants	2.7	2.9	0.2			
TOTAL	8.2	8.0	(0.2)			
* An FTE is the equivalent of 2080 hours. YTD performance FTE hours are divided by a monthly factor of 173.33.						

Board Action	Description	Date
	None to report.	



#### **Project Summary**

Scope	Launch a Bus Rapid Transit (BRT) system from the South Shoreline light rail station to UW Bothell campus with connecting service to Woodinville, including park and ride, access improvements, and transit cen- ters.
Limits	Approximately 8 miles between Shoreline and Woodinville,
Alignment	The BRT route will travel via NE 145th Street and SR 522 serving Seattle, Shore- line, Lake Forest Park, Kenmore, and Bothell, including UW Bothell/Cascadia College area. The route will have a connec- tion to I-405 BRT at the SR 522/I-405 in- terchange. Buses will operate primarily in Business Access and Transit (BAT) lanes, transit queue bypass lanes, and in general purpose lanes.
Stations	Includes 13 BRT stations, one of which is in review and two additional provisional stations are also in review. Additional park- ing is included in Lake Forest Park, Kenmore, and Bothell.
Systems	BRT Operations & Transit Signal Priority
Phase	Planning Phase 2 Conceptual Engineering and Environmental Review
Budget	\$69.4 Million—Preliminary Engineering Phase (1-3)
Schedule	Revenue Service: 2024

#### (405) 104 GID Bothell O SR 522/I-405 Transfer Hub Kenmore Lake Forest P 99 0 Park P P Woodinville 2024 Â Bus Rapid Transit Shoreline South/145th Shoreline-Bothell Bothell-Woodinville (less frequent service) Lynnwood-Bellevue-Burien (I-405 BRT route) (2024) Other service Future Link light rail (2024) 5 O New station CO Transfer hub P New parking P Existing parking

Map of Project Alignment



#### **Key Project Activities**

- Developed and presented 10% plans to the local agencies for their review.
- Requesting Rights of Entry along the corridor.
- Conducting environmental review.
- Continuing stakeholder outreach focused on property owners and businesses.
- Gave consultant Notice to Proceed to take the Lake Forest Park section of the project to a 30% design.



#### Project Cost Summary

The project cost is summarized below in accordance with Sound Transit's budget Work Breakdown Structure (WBS). The figures are shown in millions.

This period expenditures increased by approximately \$1.6Million, primarily due to progress made by the consultant on conceptual engineering and Environmental, City of Bothell stage 3 BAT lanes construction progress, Sound Transit staff time.

#### **Cost Summary by Phase**

Project Phase	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$6.3	\$3.2	\$3.1	\$6.3	\$0.0
Preliminary Engineering	\$17.0	\$8.0	\$5.8	\$17	\$0.0
Final Design	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Services	\$0.3	\$0.0	\$0.0	\$0.3	\$0.0
3rd Party Agreements	\$6.4	\$0.3	\$0.2	\$6.4	\$0.0
Construction	\$34.0	\$25.0	\$4.9	\$34.0	\$0.0
Light Rail Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$5.3	\$0.2	\$0.1	\$5.3	\$0.0
Total	\$69.4	\$36.5	\$14.3	\$69.4	\$0.0

#### Risk Management

The Risk and Contingency Management Plan (RCMP) establishes a risk management and oversight process for identifying, assessing, and monitoring risks and developing risk reduction/mitigation plans. It provides a tool for the project team to proactively manage risks on the project. Sound Transit continuously monitors project status and assesses associated risks.

The following are the top project risks and proposed mitigations:

- The SR 522/NE 145th Street BRT project is an early deliverable and involves close coordination with multiple project partners. Staff and consultants are continuing to coordinate closely with project partners.
- The timeline for property acquisition is a risk for this project. Proposed mitigation includes advancing a change order in Phase 2 to perform work that supports property civil certification and acquisition, conducting focused property owner outreach in the fall/winter of Phase 2, and advancing Phase 3 contract to first quarter 2020 to further expedite design to support property acquisition.
- Early concurrence on project components is a key effort in the first year of project development though on-going coordination with the Project Interagency Coordination Group, City Managers Group, and Elected Leadership Group.
- Coordination of ST3 refined project and WSDOT and City of Shoreline plans for NE 145th- complex jurisdictional situation and third partner expectation for ST capital investment. Partner Agency staff are actively working towards a multiagreeable solution.
- Planning, Design, Construction and Opening the Bus Base North Facility. The Bus Base North Facility will store and maintain the BRT fleet for both the I-405 and SR 522/145th BRT corridors. The I-405 BRT team will track the progress of the Bus Base North Facility project development as it is on the critical path for the program.



#### **Project Schedule***

The Conceptual Engineering/Environmental Review—Phase II commenced in 2Q 2019 with Phase II completion forecast in 3Q 2020. Construction required for BRT service is anticipated to be complete in 2024.

The current critical path for the SR522/NE 145th BRT project is the Bus Base North (BBN) Facility. The Bus Base North Facility will provide for the operation, storage and maintenance of the new I-405 BRT and SR 522/NE 145th BRT corridor bus fleet and needs to be completed before the delivery of new BRT buses.

*Construction for some of the BRT projects/elements is expected to begin by 2023 and be completed by 2024. Construction of other projects/elements began in 2019 and others may occur after service starts in 2024 and complete in 2025.

**Sound Transit contributed construction funding to certain city(s)/Authorities Having Jurisdiction (AHJ) where construction by contracts managed by those city(s) (i.e. City of Bothell) commenced in Q2 2019 allowing early construction of transit speed and reliability on roadways along the BRT corridor in advance of BRT service operation.

Project Name	Start	Finish	2020	2021	2022	2023	2024	2025
			Q Q2 Q Q4	Q Q Q3 Q	Q Q Q3 Q	Q1 Q Q Q4	Q Q Q3 Q	Q1 Q Q
Sound Transit	26-Feb-18A	02-Oct-25						
Sound Transit 3	26-Feb-18A	02-Oct-25						<u> </u>
ST3 - North Corridor	26-Feb-18A	09-Feb-25						
STRIDE - Bus Rapid Transit - North Corridor	26-Feb-18A	09-Eeb-25						<b>-</b>
STRIDE - SR 522/NE 145th Bus Rapid Transit (BRT)	26-Feb-18A							T.
SR 522/NE 145th BRT - Preliminary Engineering	26-Feb-18A							
SR 522/NE 145th BRT - Alternatives Analysis - Phase I	26-Feb-18A	-						
SR 522/NE 145th BRT - Conceptual Engineering/Environmental Review - Phase II	26-Apr-19A	14-Jul-20	V					
SR 522/NE 145th BRT - Preliminary Engineering - Phase III	09-Jun-20	11-May-21						
SR 522/NE 145th BRT - Final Design	31-Jul-19A	15-Jun-22						
SR 522/NE 145th BRT - Final Design - GEC (General Engineering Contract)	31-Jul-19A	15-Jun-22						
SR522/NE 145th BRT - Final Design - Procurement (GEC)	31-Jul-19A	12-May-20	<b>-</b> V					
SR522/NE 145th BRT - Final Design - Design (GEC)	12-May-20	15-Jun-22	$\nabla$		V			
SR 522/NE 145th BRT - Third Party Agreements and Permitting	10-Apr-20	20-Jul-22	$\nabla$		V			
SR 522/NE 145th BRT - Right of Way (ROW)	24-Apr-20	30-Jan-23	$\nabla$			$\nabla$		
SR 522/NE 145th BRT - Construction	07-Jan-19A	09-Feb-25						7
SR 522/NE 145th BRT - Construction - Roadway	07-Jan-19A	09-Feb-25						<b>V</b>
SR 522/NE 145th BRT - Construction Roadway 145th/SR522/Shoreline/Seattle/LFP/K	^{ie} 16-Jun-22	09-Feb-25			$\nabla$			
SR 522/NE 145th BRT - Stage 3 Improvements [96th Ave NE to 83rd Place NE] BTH	07-Jan-19A	30-Sep-20						
SR 522/NE 145th BRT - Stage 2B Improvements [Wayne Curve to NE 180th St] BTH	16-Jun-22	09-Feb-25						
SR 522/NE 145th BRT - Construction - Parking Garages	02-Dec-20	02-Sep-24	$\nabla$				V	
SR 522/NE 145th BRT - Lake Forest Park Parking Garage (LFP) - DB	02-Dec-20	02-Sep-24					V	
SR 522/NE 145th BRT - Kenmore Parking Garage (KEN) - DB	02-Dec-20	02-Sep-24					V	
SR 522/NE 145th BRT - Bothell Parking Garage (BTH) - DB	02-Dec-20	02-Sep-24	$\nabla$				V	
ST3 - East Corridor	08-Apr-19A	02-Oct-25						
STRIDE - Bus Rapid Transit - East Corridor	08-Apr-19A	02-Oct-25						
STRIDE - I-405 Bus Rapid Transit (BRT)	08-Apr-19A	02-Oct-25						
STRIDE - BRT - Bus Base North	08-Apr-19A	12-Apr-24					V	
BRT - Bus Base North - Preliminary Engineering	08-Apr-19A	05-Aug-20	<b></b>					
BRT - Bus Base North - Conceptual Engineering/Environmental	08-Apr-19A	05-Aug-20						
BRT - Bus Base North - Construction (D/B)	06-Aug-20	12-Apr-24	$\nabla$				V	
BRT - Bus Base North - D/B Construction Procurement	06-Aug-20	20-Jul-21	$\nabla$	V				
BRT - Bus Base North - Construction - Design / Build (DB)	20-Jul-21	12-Apr-24		$\nabla$			V	
STRIDE - BBN - Maintenance Provider	20-Jul-21	04-Jun-24		$\nabla$			V	
STRIDE - BRT - BRT Coaches- Procurement and Delivery	26-Jun-20	17-Apr-23	V					
STRIDE - BRT - Intelligent Transportation System (ITS)	18-Mar-21	04-Apr-25		$\nabla$				
STRIDE - BRT - Intelligent Transportation System (ITS) - Procurement (DB)	18-Mar-21	12-Nov-21		$\nabla$				
STRIDE - BRT - Intelligent Transportation System (ITS) - Design / Build	13-Nov-21	04-Apr-25		$\nabla$				V
STRIDE - BRT - Service Line Activation	13-Apr-24	02-Oct-25						



## Community Outreach

Sound Transit is committed to proactively seeking public input during all stages of the Project. The SR522 BRT Community Engagement and Communication Guide establishes a stakeholder engagement process that helps ensure priorities of local communities are heard and considered along with the project-wide goals. The BRT team will collaborate with elected officials, partner staff, and local communities throughout project development. The following steps have been undertaken:

- Updated Phase 2 community engagement plan, including supporting outreach/engagement with property owners along the corridor in the fall and winter.
- Started in home visits to potentially y affect property owners in Lake Forest Park and Kenmore.

#### Staffing Summary

The planned Full-Time Equivalent (FTE) is an annual projection of ST project staff and consultants. Planned FTE are an annual projection and remains constant from month to month. The Year-to-Date (YTD) Performance is the total actual FTEs accumulated through this reporting period. Staffing status is summarized in the following table.

Planned FTE is an annual projection. The staffing variance is less than planned as the project has yet advance to Phase 3. Staffing levels are expected to rise to meet planned estimates as the project progresses.

Resource Type	Planned FTE Monthly Average	YTD Actual FTE Monthly Average	Variance	
ST Staff	13.8	11.0	(2.8)	
Consultants	24.0	15.5	(8.5)	
TOTAL	37.8	26.5	(11.3)	
* An FTE is the equivalent of 2080 hours. YTD performance FTE hours are divided by a monthly factor of 173.33.				

Board Action	Description	Date
	None to report.	

## **Regional Express & Bus Rapid Transit Bus on Shoulder**



#### **Project Summary**

Scope	This program provides opportunities for buses to use shoulders on freeway and state route facilities during periods of congestion in general traffic and/or HOV lanes. This program will require coordination and fur- ther study with transit partners, WSDOT and Federal Highway Administration in order to determine locations that may be feasible.
Phase	Planning (Feasibility Study) and Construc- tion (I-5 southbound Lynnwood to Mount- lake Terrace bus-on-shoulder project, by WSDOT).
Budget	Planning Phase: \$3.6 Million Construction Phase: \$0.3 Million
Schedule	Revenue Service: Varies



Examples of Bus-on-Shoulder facilities

#### **Key Project Activities**

- Supplemented the study with additional projects identified by transit agency partners.
- Developed engineering and environmental documentation scope of work for candidate segments which has been included in the Bus Rapid Transit GEC contract.
- Continued coordination with WSDOT and partner transit agencies.

#### **Project Cost Summary**

The project cost is summarized in the following page in accordance with Sound Transit's budget Work Breakdown Structure (WBS). The figures shown are in millions.

Since December 2019, the project cost incurred to date increased but not enough to be seen in the rounded figures in the next page.



#### **Cost Summary by Phase**

Project Phase	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$0.9	\$0.1	\$0.1	\$0.9	\$0.0
Preliminary Engineering	\$2.2	\$0.0	\$0.0	\$2.2	\$0.0
Final Design	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Services	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
3rd Party Agreements	\$0.4	\$0.4	\$0.4	\$0.4	\$0.0
Construction	\$0.3	\$0.3	\$0.3	\$0.3	\$0.0
ROW	\$0.1	\$0.0	\$0.0	\$0.1	\$0.0
Total	\$3.9	\$0.8	\$0.8	\$3.9	\$0.0

#### **Risk Management**

The Risk and Contingency Management Plan (RCMP) establishes a risk management and oversight process for identifying, assessing, and monitoring risks and develops risk reduction/mitigation plans. It provides a tool for the project team to proactively manage risks on the project. It is Sound Transit's responsibility to continuously monitor project status and associated risks.

The following are the top project wide risks:

- The right combination of factors must be present to implement Bus on Shoulder operation: sufficient transit service and ridership along a roadway segment; service that is adversely affected by roadway congestion; and physical and operating conditions along a roadway segment's shoulder that can accommodate reasonable improvements to its length, width, pavement, etc.
- Candidate projects must benefit one or more of the three contributing subareas.
- Washington State Patrol and other emergency responders also use shoulders for enforcement and hazard response. Facilitating WSP and emergency responder needs may preclude bus operation on candidate roadway segments or require certain types of improvements beyond shoulder modifications.

#### **Project Schedule**

In early 2019, a feasibility study completed identifying and evaluating candidate Bus On Shoulder projects. A post-feasibility study-projects verification-next steps effort was completed in December 2019. The most cost-effective projects will proceed to the design process. Bus on Shoulder improvement projects may be designed, constructed and in-service over a multiple year period from 2021-2024.

Activity Name	Start	Finish		2019	2020	2021	2022	2023	2024
			Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q
Sound Transit	05-Jun-18 A	27-Apr-24							
Sound Transit 3	05-Jun-18 A	27-Apr-24							
ST3 - East Corridor	05-Jun-18 A	27-Apr-24							
Bus on Shoulders	05-Jun-18 A	27-Apr-24							
Preliminary Engineering	05-Jun-18 A	30-Dec-21							
Alternative Analysis - Phase I	05-Jun-18 A	31-Dec-19 A			7				
Conceptual Engineering - Phase II	01-Jan-20 A	30-Dec-20		•		,			
Preliminary Engineering - Phase III	31-Dec-20	30-Dec-21							
Final Design	31-Dec-21	30-Oct-22				•			
Construction	31-Oct-22	30-Oct-23					· · ·		
Post Construction	31-Oct-23	27-Apr-24							
Project Float	31-Oct-23	27-Apr-24						· · ·	
Project Completion	27-Apr-24	27-Apr-24							•



#### **Community Outreach**

- Outreach activities are minimal at this time.
- Continued monitoring outreach needs for the project and Outreach Team is available to answer any questions from the public.

#### **Staffing Summary**

The planned Full-Time Equivalent (FTE) is an annual projection of ST project staff and consultants. Planned FTE are an annual projection and remains constant from month to month. The Year-to-Date (YTD) Performance is the total actual FTEs accumulated through this reporting period. Staffing status is summarized in the following table.

Planned FTE being annual, the variance is explained by the fact that design cost estimate and environmental won't start before-Q2-2020.

Resource Type	Planned FTE Monthly Average	YTD Actual FTE Monthly Average	Variance		
ST Staff	0.7	0.3	(0.4)		
Consultants	n/a	n/a	n/a		
TOTAL	0.7	0.3	(0.4)		
* An FTE is the equivalent of 2080 hours. YTD performance FTE hours are divided by a monthly factor of 173.33.					

Board Action	Description	Date
	None this period.	



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# Progress Report Capital Program Support



Prepared by Project Control & VE I Design, Engineering & Construction Management



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# Capital Program Support Grants



#### Current Grant Funding (Includes only Active Executed Grants)

Line of Service	Grant ID	Project	Award Amount Executed Drawdo		Life to Date Drawdowns nru Dec. 2019)		
Federal Tran	sit Administration (F	ΤΑ)	1				
Link	WA-03-0237	University Link FFGA	\$	684,370,641	9/16/15	\$	612,915,262
Link	WA-95-X061	Tacoma Link Expansion	\$	5,599,943	8/27/15	\$	5,314,144
Link	WA-95-X067	East Link: Overlake Village Ped Bridge	\$	6,606,585	8/8/14	\$	6,606,585
Link	WA-95-X073	East Link: Bellevue Way HOV Improvements (S Bell P&R to I-90)	\$	2,200,000	8/8/14	\$	444,950
Link	WA-2016-012	Tacoma Link Expansion light rail vehicles	\$	6,000,000	5/17/17	\$	2,452,054
Sounder	WA-2018-015	Sounder Rolling Stock	\$	7,799,730	3/8/18	\$	-
Link	WA-2018-024	Northgate Link Extension	\$	49,708,902	5/9/18	\$	49,708,902
Link	WA-2018-030	Federal Way Link Extension	\$	4,509,494	6/5/18	\$	4,509,494
Link	WA-2018-013	Tacoma Link Extension	\$	74,999,999	5/15/18	\$	23,999,583
Sounder	WA-2018-081	Puyallup Station Access Improvements	\$	6,700,000	11/16/18	\$	4,741,879
Link	WA-2018-082	Downtown Redmond Link Ext	\$	600,000	11/16/18	\$	58,016
Link	WA-2019-001	Linkwood Link Extension	\$	300,000,000	12/19/18	\$	214,326,633
REX	WA-2019-023	Bus Replacements	\$	1,375,000	4/19/19	\$	-
REX	WA-2019-024	Bus Replacements	\$	4,920,406	4/19/19	\$	4,920,406
REX	WA-2019-018	HIMB Bus Preventative Maintenance	\$	17,948,707	4/16/19	\$	17,948,707
Link	WA-2019-025	HIFG Rail Prev Maint	\$	41,456,995	4/20/19	\$	41,456,995
Sounder	WA-2020-002	Sounder Expansion (ST3)	\$	5,600,000	12/13/19	\$	-
REX	WA-2020-007	I-405 BRT North	\$	3,500,000	12/30/19	\$	-
Other Feder	al						
Systemwide	EMW-2017-RA-00018	Video Monitoring System and Security Program	\$	662,238	11/2/17	\$	21,529
Systemwide	EMW-2019-RA-00014	Systemwide Security	\$	1,315,813	9/1/19	\$	-
State							
Link	GCB2114	Tacoma Link Expansion	\$	5,000,000	3/28/17	\$	4,999,999

Above table as of 4th QTR 2019. This section is updated every quarter.



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#### Sustainability

Sustainability is at the core of Sound Transit's mission to connect more people to more places efficiently, affordably, reliably and in an environmentally friendly manner. Investing in transit builds a better future, maintains a clean environment, and supports both healthy communities and vibrant economies. At Sound Transit, sustainability is about more than the natural environment – it is a holistic goal that protects and enhances people, planet and prosperity.

In 2019, Sound Transit continued to carry out a wide range of projects, with increased focus on integrating sustainable design into capital expansion – from planning and final design to construction. With the passage of the ST3 Plan, a fully funded Sustainability Program will integrate green building and infrastructure in projects across all phases of development.

Sound Transit continues to implement our Sustainability Initiative through our internationally certified (ISO 14001) Environmental and Sustainability Management System (ESMS). The agency also continues to be a transit industry leader through our ongoing participation in APTA's Sustainability Commitment at the platinum recognition level.

#### Key Q4 2019 Accomplishments and Activities

- Continued providing alignment between PEPD, DECM and Operations on evaluating battery electric bus feasibility:
  - ° Finalized Battery Electric Bus Feasibility Analysis for ST Express and Bus Rapid Transit.
  - Continued meetings of internal Battery Electric Bus Working Group; presented results of both ST Express and Bus Rapid Transit analyses at these meetings.
- Completed the Environmental and Sustainability Management System external audit.
- Updated research on using greener concrete in transit expansion projects.
- Finalized guidelines on using Efficiency and Sustainability funds.
- Continued developing guidelines on using funds from the ST3 Sustainability Cost Allowance.
- Began evaluating LEED Existing Builling Operations and Maintenance for Union Station.

#### Key Upcoming Activities for Q1 2020

- Present semiannual Sustainability Plan progress to the Sound Transit Board of Directors.
- Finalize and publish list of 2020 Environmental and Sustainability targets.
- Begin data collection for annual Sustainability Inventory and Progress Report.
- Complete procurement of a new ISO 14001 registrar.
- Finalize the guidelines for using funds from the ST3 Sustainability Cost Allowance.
- Finalize procedure for integrating utility rebates on capital projects.





AA	Alternative Analysis	GC/CM	G
AHU	Air Handling Units	HVAC	Η
BCE	Baseline Cost Estimate	ICD	Ir
BCWS	Budgeted Cost of Work	IFB	Is
BIM	Building Information Modeling	IFC	Ir
BNSF	Burlington Northern Santa Fe Railway	IRT	Ir
ССВ	Change Control Board	IWP	Ir
CDF	Controlled Density Fill	JA	Ja
CHS	Capitol Hill Station	JARPA	Jo
СМ	Construction Management	КСМ	K
CMU	Concrete Masonry Unit	LNTP	L
СО	Change Order	LRRP	L
СРІ	Cost Performance Index	LRT	L
СРМ	Critical Path Method	LRV	L
DAHP	Department of Archaeology & History Preser- vation	LTK	L
DART	Days Away, Restricted or Modified	MACC	Ν
DB	Design -Build	MEPF	N
DBPM	Design-Build Project Management	MLK	M
DECM	Design, Engineering and Construction Man- agement	MOA	M
DEIS	Draft Environmental Impact Statement	MOU	M
DP	Design Package	MOW	M
DPD	Seattle Department of Planning and Develop- ment	MPPCV	M
DSC	Differing Site Conditions	MRB	N
DSDC	Design Support During Construction	МТР	M
DSTT	Downtown Seattle Transit Tunnel	MUP	M
EFC	Estimated Final Cost	NB	Ν
EMI	Electro Magnetic Interference	NCR	Ν
ERC	East Rail Corridor	NCTP	Ν
FD	Final Design	NEPA	Ν
FHWA	Federal Highway Administration	NOAA	Ν
FSEIS	Final Supplemental Environmental Impact Statement	NTP	is N
FFGA	Full Funding Grant Agreement	OCS	0
FTA	Federal Transit Administration	OMF	- O

CCICM	Comment Contractory (Competence tion Monocomment
GC/CM HVAC	General Contractor /Construction Management
HVAC ICD	Heating, Ventilation and Air Conditioning
ICD	Integration Control Document Issue for Bids
IFC	Industry Foundation Classes
IRT	Independent Review Team
IWP	Industrial Waste Permit
JA	Jacobs Associates
JA JARPA	
JAKPA KCM	Joint Aquatic Resource Permit Application
KCM LNTP	King County Metro Limited Notice to Proceed
	Light Rail Review Panel
	-
LRT	Light Rail Transit
LRV	Light Rail Vehicle
LTK	LTK Engineering Services
MACC	Maximum Allowable Construction Cost
MEPF	Mechanical/Electrical/Plumbing/Fire Sprinkler
MLK	Martin Luther King, Jr. Way
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MOW	Maintenance of Way
MPPCV	Major Public Project Construction Variance
MRB	Material Review Board
MTP	Montlake Triangle Project
MUP	Master Use Permit
NB	Northbound
NCR	Notification of Change Report
NCTP	North Corridor Transit Partners
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Atmospheric Admin- istration
NTP	Notice to Proceed
OCS	Overhead Catenary System
OMF	Operations and Maintenance Facility
OMSF	Operations and Maintenance Satellite Facility

# Acronyms



РЕ	Preliminary Engineering
PEP	Project Execution Plan
PEPD	Planning, Environment and Project Develop- ment
РМОС	Project Management Oversight Consultant
PSST	Pine Street Stub Tunnel
QA	Quality Assurance
QC	Quality Control
QTR	Quarter
RE	Resident Engineer
RFC	Request for Change
RFD	Request for Deviation
RFI	Request for Information
RFP	Request for Proposal
RFQ	Request for Qualifications
RIR	Recordable Injury Rates
RMP	Risk Management Plan
ROD	Record of Decision
ROW	Right -of -Way
SB	Southbound
SCADA	Supervisory Central and Data Acquisition
SCC	Standard Cost Categories
SCL	Seattle City Light
SDEIS	Supplemental Draft Environmental Impact Statement
SEPA	State Environmental Policy Act
SIP	Street Improvement Permitting
SPI	Schedule Performance Index
SR	State Route
ST	Sound Transit
START	Seattle Tunnel and Rail Team
SWI	Stacy and Witbeck, Inc.
ТВМ	Tunnel Boring Machine
TCE	Temporary Construction Easement
ТЕ	Traction Electrification
TFK	Traylor Frontier Kemper Joint Venture
TOD	Transit Oriented Development
TVM	Ticket Vending Machine

UAC U-Link	Unallocated Contingency University Link project
UDS	University District Station
USFWS	U.S. Fish and Wildlife Service
UW	University Of Washington
UST	Underground Storage Tank
UWS	University of Washington Station
VE	Value Engineering
VECP	Value Engineering Cost Proposal
WBS	Work Breakdown Structure
WDFW	Washington Department of Fish and Wildlife
WSDOT	Washington Department of Transportation