Progress Report Link Light Rail Program



The Plaza at the Angle Lake Parking Garage

August | 2016







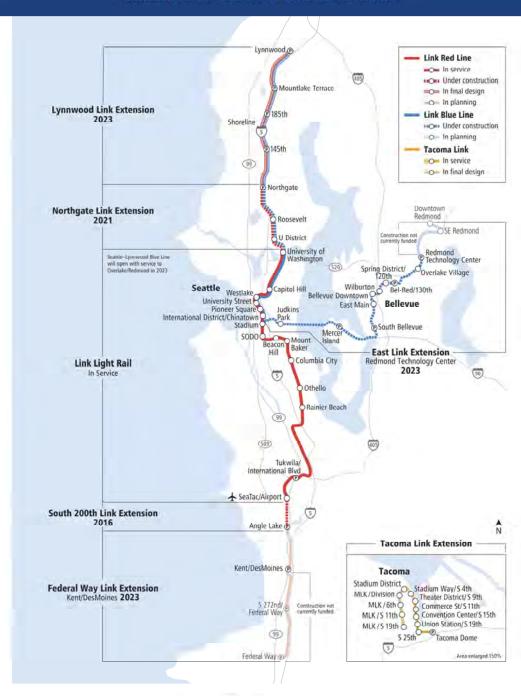


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LINK LIGHT RAIL CURRENT SERVICE AND APPROVED EXTENSIONS





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Link Light Rail Program Overview



Projects

University Link Extension (U-Link): This project is a 3.15-mile light rail segment which is located entirely underground with tunnels traveling from Pine Street, under the I-5 freeway to an underground station at Capitol Hill, continuing north beneath SR 520 and the Montlake Cut to an underground station on the University of Washington campus, near Husky Stadium. The Sound Transit Board adopted the baseline capital budget of \$1.76B in July 2008. Revenue Service began on March 19, 2016.

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. The project is in Final Design and Construction. 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 at-grade, elevated, and retained cut/fill alignment. The proposed budget for this project is \$487.9M.

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 Center is forecast for early 2023 with a tunnel route in Downtown Bellevue. The Sound Transit Board adopted the baseline capital budget of \$3.67B in April 2015.

South 200th Link Extension: S. 200th Link Extension consists of a 1.6-mile extension of the light rail from the SeaTac/Airport Station to an elevated station at South 200th Street. The Project is being developed through a designbuild (DB) delivery strategy and the anticipated service launch is September 2016. The Sound Transit Board adopted the baseline capital budget of \$383M in 2011.

Federal Way Link Extension: Sound Transit has identified the route and station location requirements for the extension of light rail to the Federal Way Transit Center; with preliminary engineering to be completed on the segment extending from S. 200th St. to Kent/Des Moines in the vicinity of Highline Community College. The proposed budget for this effort is \$48.8M.

Tacoma Link Extension: The 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.

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 pays, a LRV wash facility and storage for up to 96 light rail vehicles. The ST Board adopted the baseline capital budget of \$449M in July 2016.

ST2 Light Rail Vehicles (LRV) Fleet Expansion: This project includes the design, manufacturing, inspection, testing and delivery of 122 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 in September 2015.

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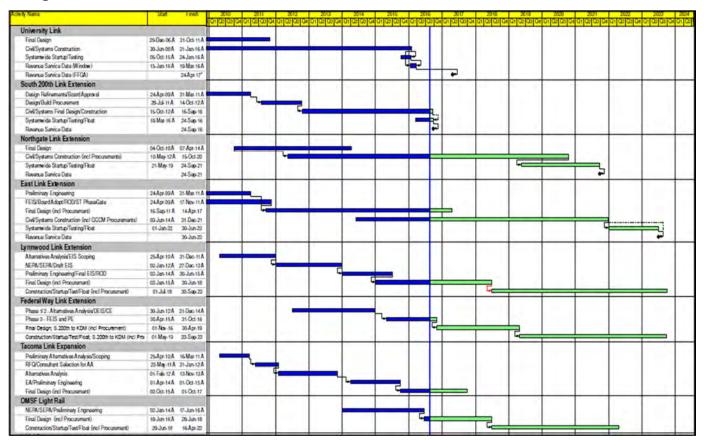


Program Budget

Project	Adopted Budget	Committed to Date	Incurred to Date	Forecast to Complete	Estimated Final Cost	Adopted Budget vs. EFC
University Link	\$1,756.0	\$1,509.2	\$1,494.8	\$46.3	\$1,555.5	\$200.5
Northgate Link Extension	\$1,899.8	\$1,135.5	\$727.3	\$764.2	\$1,899.8	\$0
Lynnwood Link Extension	\$487.9	\$155.4	\$64.2	\$332.5	\$487.9	\$0
East Link Extension	\$3,677.2	\$1,041.7	\$502.3	\$2,635.5	\$3,677.2	\$0
South 200th Link Extension	\$383.2	\$326.7	\$310.5	\$16.6	\$343.2	\$40.0
Federal Way Extension	\$48.8	\$37.4	\$31.5	\$11.4	\$48.8	\$0
Tacoma Link Extension	\$33.0	\$17.9	\$8.4	\$15.1	\$33.0	\$0
Link O & M Facility: East	\$449.2	\$35.5	\$33.5	\$413.7	\$449.2	\$0
ST2 LRV Expansion	\$733.0	\$4.9	\$1.7	\$728.I	\$733.0	\$0
Downtown Redmond Link Ext.	\$28.6	\$0.1	\$0.1	\$28.5	\$28.6	\$0
Total Link	\$9,496.6	\$4,264.3	\$3,174.3	\$4,991.9	\$9,256.1	\$240.5

Table in millions.

Program Schedule



Changes this period: None.

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Scope

Limits: 3.15-mile extension of the Initial Segment

light rail transit (LRT) system from the Pine Street Stub Tunnel (PSST) in downtown Seattle to University of Washington (UW) cam-

pus near Husky Stadium.

Tunnels: Two twin bored tunnels. Two contract seg-

ments: U220 starts at Husky Stadium, continues beneath SR 520 and the Montlake Cut south to the Capitol Hill underground station. U230 commences at Capitol Hill Station and proceeds south under the I-5 freeway to the

PSST.

Stations: 2 underground center platform stations –

Capitol Hill (U240) and University of Washington (U250). U240 is approximately 65' underground with three station entrances. U250 is about 100' below ground, with three station entrances and connections to the UW

campus by a pedestrian bridge.

System: 27 LRV; direct fixation tracks, signals, trac-

tion electrification, and SCADA communica-

tions

Budget: \$1.948 billion including finance cost (capital

subtotal of \$1.756 billion)

Schedule: Revenue Service began on March 19, 2016.



Key Project Issues

- Revenue Service commenced on March 19, 2016. Coordination between the Construction teams and the Operations group are ongoing to adjust the System for optimum operations. Contractors continue to perform punch list items but access for these activities poses to be challenging as they now have to work under Operations' rules and not Construction protocols. Availability of Operations personnel for oversight poses as a challenge as well as they are committed to prioritizing the Angle Lake Station opening over University Link.
- *U830 Systems*: Contractor is now collaborating to incorporate the South 200th Extension points into the newly installed operating systems. Contractor is currently focusing on the SCADA integration with South 200th Extension while continuing to perform punch list on U-Link and systems refinement to achieve optimal operation status. U-Link Systems has encountered some issues related to this infancy period.
- *Certification of Occupancy*: University Link continues to operate under a temporary certification of occupancy until all permit requires are fully met. The only outstanding item is the UL certification of low voltage cables in the tunnel —particularly the radiax cables that works as an antenna to the radio communication system.
- Commercial issues with prime contractors are being negotiated as the project proceeds through the close out process.

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Project Cost Summary

The U-Link project cost is summarized in two types of cost classifications. In the first table, cost is classified in accordance with Sound Transit's Work Breakdown Structure (WBS); and in the second table, cost is summarized in accordance to the FTA's Standard Cost Categories (SCC) format. (Both tables' figures in millions.)

WBS Phase Elements	Baseline	Budget	Currer	t Adopted Budget	C	ommitment to Date*	In	curred to Date	Es	st. Final Cost (EFC)	Ad	opted Budget vs. EFC
ADMINISTRATION	\$	115.23	\$	113.55	\$	80.28	\$	79.21	\$	88.23	\$	25.32
PRELIMINARY ENGINEERING	\$	24.39	\$	24.26	\$	24.26	\$	24.26	\$	24.26	\$	-
FINAL DESIGN	\$	77.94	\$	90.31	\$	87.66	\$	85.85	\$	88.66	\$	1.65
CONSTRUCTION SERVICES	\$	68.53	\$	94.81	\$	86.70	\$	86.27	\$	88.72	\$	6.10
3rd PARTY AGREEMENTS	\$	18.65	\$	18.65	\$	12.01	\$	11.28	\$	13.55	\$	5.10
CONSTRUCTION	\$	1,180.00	\$	1,158.18	\$	992.62	\$	982.35	\$	1,022.58	\$	135.60
VEHICLES	\$	103.91	\$	103.91	\$	99.20	\$	99.19	\$	101.91	\$	2.00
ROW	\$	167.33	\$	152.33	\$	126.44	\$	126.43	\$	127.62	\$	24.71
Capital Total	\$	1,755.97	\$	1,756.01	\$	1,509.17	\$	1,494.84	\$	1,555.53	\$	200.47
FINANCE COST	\$	191.71	\$	191.71	\$	191.71	\$	174.87	\$	191.71	\$	-
Project Total	\$	1,947.68	\$	1,947.72	\$	1,700.88	\$	1,669.72	\$	1,747.24	\$	200.47

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

In August, the projected Estimated Final Cost (EFC) including Finance Cost remains at about \$1.75B. In this period, approximately \$2.4M was incurred and inching the project's Incurred to Date amount closer to \$1.5B (Finance Cost excluded). Direct construction cost in August approximate \$1M largely attributed to systems and station close out activities. The direct construction EFC continues to trend approximately \$1B. This trend continues to be intact as the project is now completed with only miscellaneous follow on scope and commercial issues remain. Capitol Hill Contractor continues on their punch list work, the Systems (U830) Contractor continues to tune and optimizes the systems as well as the integration South 200th Extension systems points. The Total Incurred to Date for the Construction Phase is about \$982M with a current commitments about \$1.16B. Cost for LRV is at about \$99.2M and repairs to the traction motor and gear unit continues. Cost of repairs are excluded from this project and tracked independently.

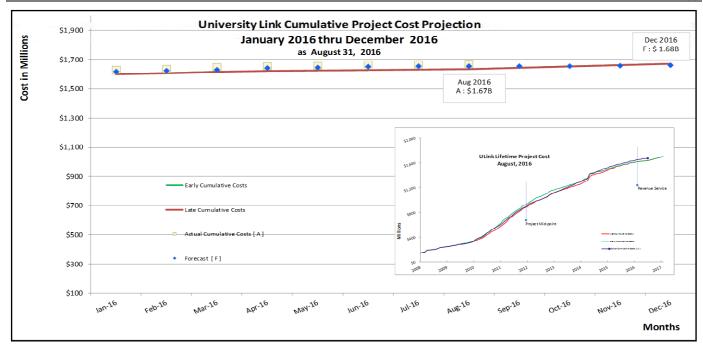
Construction EFC under the SCC format for this period remains stable and relatively unchanged at about \$1B. Construction SCC expenditures in August is about \$1M. This period, the bulk of U-Link construction cost has been attributed Station punch list and Systems testing and resolutions to change order work. Incurred to date for Construction under the SCC is approaching \$972M. Total capital cost incurred to date including non-construction cost (SCC 60 thru 90) now at \$1.49B or about 85% of total project budget scoped (excluding Finance Cost).

Project Elements by SCC	Bas	seline Budget	Cu	rrent Adopted Budget	С	ommitment to Date*	In	curred to Date	_	stimated Final Cost (EFC)	Ad	lopted Budget vs. EFC
10 Guideway & Track Elements	\$	626.83	\$	450.46	\$	456.08	\$	455.78	\$	461.24	\$	(10.78)
20 Stations	\$	366.33	\$	350.75	\$	344.49	\$	342.35	\$	353.09	\$	(2.33)
30 Support Facilities: Yards, Shops	\$	7.01	\$	24.83	\$	23.27	\$	22.80	\$	24.50	\$	0.33
40 Sitework & Special Conditions	\$	59.03	\$	67.39	\$	56.99	\$	54.62	\$	56.83	\$	10.56
50 Systems	\$	69.63	\$	116.42	\$	100.35	\$	96.09	\$	102.89	\$	13.53
Construction Subtotal (SCC 10-50)	\$	1,128.82	\$	1,009.85	\$	981.18	\$	971.64	\$	998.54	\$	11.31
60 Row, Land, Existing Improvements	\$	167.33	\$	125.77	\$	126.44	\$	126.43	\$	126.60	\$	(0.83)
70 Vehicles	\$	99.76	\$	100.16	\$	99.87	\$	99.32	\$	100.16	\$	0.00
80 Professional Services	\$	306.41	\$	346.58	\$	301.68	\$	297.46	\$	318.75	\$	27.84
90 Unallocated Contingency	\$	53.65	\$	173.64	\$	-	\$	-	\$	11.48	\$	162.16
Capital Cost Total (SCC 10-90)	\$	1,755.97	\$	1,756.01	\$	1,509.17	\$	1,494.84	\$	1,555.53	\$	200.47
100 Finance Cost	\$	191.71	\$	191.71	\$	191.71	\$	174.87	\$	191.71	\$	-
Project Total	\$	1,947.68	\$	1,947.72	\$	1,700.88	\$	1,669.72	\$	1,747.24	\$	200.47

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

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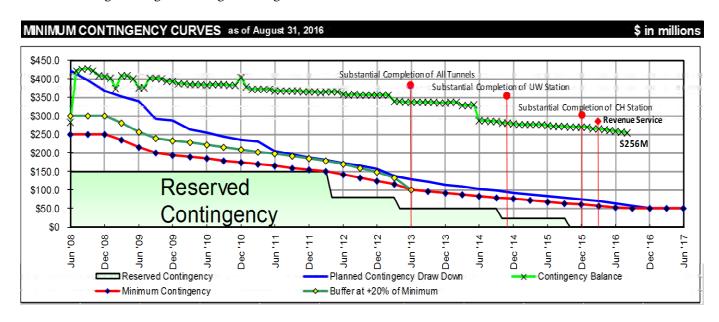




Total project cost incurred to date at August 2016 close including Finance Cost is at \$1.66B. The financing cost incurred to date is about \$175M. University Link projects the cost will be at approximately \$1.67B by December 2016 as close out activities continues. University Link EFC is projected at approximately \$200M under budget excluding financing cost.

Cost Contingency Management

Project contingencies remains at healthy at approximately \$256M due to the favorable construction bidding climate, ROW acquisition cost trends, diligent project risk management practices, and excellent tunneling conditions. August's overall contingencies notched down by about \$1.5M due to construction change orders and follow on project commitments. While major construction activities are now done, there are still considerable follow-on scope to complete (pertaining to close-out of the project, systems adjustments to optimize the operating systems as well as settlement of commercial issues). Barring any catastrophic event, the likelihood that this contingency stays on trend is high. The forecast indicates that approximately 78% of these contingencies will be remain unused; thereby, generating approximately \$200M of budget savings excluding financing cost.



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Project Schedule Summary

Revenue Service began on March 19, 2016.

U240 Contractor achieved Substantial Completion in December 2015. A Temporary Certificate of Occupancy was achieved on Revenue Service date of March 19, 2016. The U830 Contract has not achieved Substantial Completion but System Integration Testing is complete. U835 EMI/Vibration Testing is completed. The U810 MOW Building is complete; close-out, punchlist work continue.

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Link Light Rail University Link Extension – Stations



U240 Contract - Capitol Hill Station

Close-out Progress

The U240 Contractor achieved Substantial Completion on December 31, 2015. Punchlist and close-out work is underway.

Close-out Activities

Current Period

Continued negotiating and finalizing outstanding commercial issues. The latest round of mediation was successful in resolving some subcontractor claims, but a final settlement with the General Contractor has not been reached.

Next Period

- Finalize all punch list items throughout the station. This activity is on hold pending traction power support from Sound Transit operations group, which is anticipated to happen late 3rd or early 4th QTR 2016.
- Continue negotiating and finalizing commercial issues.

Closely Monitored Issues

- Multiple commercial issues remain open including various notice of intents to claim and actual claims. These claims continue to be reviewed and assessed by Sound Transit and the Contractor.
- Contractor continues working on leak remediation. ST remains concerned about schedule to complete leak remediation work. A definitive date for completion of this work has not been determined, but anticipated to happen late 3rd QTR or early 4th QTR 2016.

U250 Contract - University of Washington Sta.

Close-out Progress

Milestone #7, Substantial Completion, was granted in November 2014. U250 achieved acceptance on April 26, 2016.

Close-out Activities

Current Period

Continued closing out of all remaining commercial issues.

Next Period

• Continue closing out of all remaining commercial is-

Closely Monitored Issues

- Multiple commercial issues remain unresolved. These issues continue to be reviewed and assessed by Sound Transit.
- Three Notices of Intent to Claim have been filed by the GC/CM. All three claims were denied. A request for mediation was received, and rejected until all claim issues can be mediated at one time.

Cost Summary

Present Financial Status	Amount				
U240 Contractor - Turner Construction					
Со					
Original Contract Value	\$104,850,276				
Change Order Value	\$11,254,629				
Current Contract Value	\$116,104,905				
Total Actual Cost (Incurred to date)	\$113,657.255				
Financial Percent Complete:	98%				
Physical Percent Complete:	98%				
Authorized Contingency	\$11,742,514				
Contingency Drawdown	\$11,254,629				
Contingency Index	1.02				

Cost Summary

Present Financial Status	Amount
U250 Contractor - Hoffman Construction	
Co.	
Original Contract Value	141,745,898
Change Order Value	8,659,062
Current Contract Value	150,404,959
Total Actual Cost (Incurred to date)	150,229,022
Financial Percent Complete:	99%
Physical Percent Complete:	99%
Authorized Contingency	9,152,295
Contingency Drawdown	8,659,062
Contingency Index	1.04

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Link Light Rail University Link Extension – Systems

U810 Contract - Maintenance of Way

U830 Contract – Track, Signal, Traction Power and Communications

Close-out Progress

Punchlist work and commissioning of equipment continued.

Close-out Progress

Began Revenue Service on March 19, 2016. Punchlist and close-out work continue.

Close-out Activities

Current Period

• Continued processing outstanding commercial issues.

Next Period

• Continue processing outstanding commercial issues.

Closely Monitored Issues

• ST and Contractor continue to review outstanding commercial issues and continue working towards a possible negotiated settlement.

Close-out Activities

Current Period

Punch list and close out documents work continues.

Next Period

• Ongoing work on commercial closure of the U830 project.

Closely Monitored Issues

• Closely monitoring the S440 integration to ensure South 200th Link successfully opens for Revenue Service in September 2016.

Cost Summary

Present Financial Status	Amount
U810– Forma Construction (Design/ Build)	
Original Contract Value	\$11,998,725
Change Order Value	\$501,013
Current Contract Value	\$12,499,738
Total Actual Cost (Incurred to date)	\$12,438,547
Financial Percent Complete	99%
Physical Percent Complete:	99%
Authorized Contingency	\$959,898
Contingency Drawdown	\$501,013
Contingency Index	1.9

Cost Summary

Present Financial Status	Amount
U830 GC/CM Contractor - Stacy &	
Witbeck	
Original Contract Value	\$119,167,433
Change Order Value	\$3,997,387
Current Contract Value	\$123,164,820
Total Actual Cost (Incurred to date)	\$119,195,468
Financial Percent Complete	96.8%
Physical Percent Complete:	99.0%
Authorized Contingency	\$5,958,373
Contingency Drawdown	\$3,997,387
Contingency Index	1.5

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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 the UW Station,

boring tunnels under campus then continues north to a portal located north of NE 94th Street on the east side of I-5, then transitioning to an aerial structure running north to the

Northgate Mall.

Stations: The *U District Station* is an underground sta-

tion located on the west side of the UW campus near Brooklyn Ave. and NE 45th St. The *Roosevelt Station* is an underground station located near NE 65th St. and 12th Ave NE. The *Northgate Station* is an elevated station located at the southwest edge of the Northgate

Mall property.

Systems: Include Signals, track electrification, and

SCADA communications.

Budget: \$1.899 Billion Service: September 2021

Phase: Final Design and Construction



Map of Northgate Link Extension route and stations.

Key Project Activities

- Briefed FTA regarding progress at the ST-FTA Quarterly Meeting.
- Design Team prepared a revised track alignment to address TBM misalignment and provided draft request for deviation.
- Successfully completed TBM vibration measurements on the UW Campus during TBM pass-by of the Mechanical Engineering and Annex buildings and More and Wilcox buildings.
- Progressing various Final Design contract packages. (See Final Design section for details.)
- For N125 TBM Tunnels, Crews continued UWS retrieval site set up in preparation for arrival of TBM No. 1, completing temporary restoration of UWS plaza surface area. Mining progress to-date is 3,646 rings (18,230 ft). JCM maintained dewatering drawdown at UWS for TBM arrival.
- For N160 Northgate Station The Notice of Award was formally issued to Absher Construction after ST Board's approval. JCM crews began demobilization of tunnel mining facilities at Maple Leaf Portal.

 For N180 Trackwork, Notice to Proceed issued to Stacy & Witbeck. ST awaits FTA response on request for waiver for ultra-straight rail.

Closely Monitored Issues

Cross passage work schedule slipped slightly due to coordination of successive activities and resource constraints.
 There is typically some period of inactivity between each construction activity at every cross passage. The CM team initiated a schedule sequence review meeting to review concerns on Milestone achievement with JCM.

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Project Cost Summary

The Northgate Link project cost is summarized below by two cost categories. In the first table, the cost is summarized in accordance with Sound Transit's 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.

Cost Summary by Phase

Project Phase	Baseline Budget	Current Adopted Budget	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Adopted Budget vs. EFC
ADMINISTRATION	\$147.9	\$147.9	\$40.4	\$40.1	\$147.9	\$0.0
PRELIMINARY ENGINEERING	\$15.1	\$15.1	\$15.1	\$15.1	\$15.1	\$0.0
FINAL DESIGN	\$129.2	\$129.2	\$116.7	\$99.7	\$129.2	\$0.0
CONSTRUCTION SERVICES	\$118.3	\$118.3	\$84.8	\$38.8	\$118.3	\$0.0
3rd PARTY AGREEMENTS	\$11.8	\$11.8	\$9.9	\$5.9	\$11:8	\$0.0
CONSTRUCTION	\$1,328.0	\$1,328.0	\$775.4	\$434.8	\$1,328.0	\$0.0
ROW	\$127.3	\$127.3	\$93.3	\$92.8	\$127.3	\$0.0
PROJECT CONTINGENCY	\$22.2	\$22.2	\$0.0	\$0.0	\$22.2	\$0.0
Total	\$1,899.8	\$1,899.8	\$1,135.5	\$727.3	\$1,899.8	\$0.0

The Estimated Final Cost (EFC) for the project as of this reporting period is \$1,899.8M, which is equal to the current project budget. This period, contracts N160 and N180 were awarded, increasing the construction commitment by \$245M. Approximately \$16.9M was incurred, of which \$14.1M was for the N125 tunneling contract, the N111 Utility Relocation and N113 OH Power Relocation projects at Northgate, and other miscellaneous construction; \$0.9M was incurred for civil and systems final design and design support during construction; and \$1.1 was for construction management. The remaining expenditures were for third party coordination, permits, staff, legal, right-of-way and other direct charges.

SCC Element	Baseline Budget	Current Adopted Budget	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Adopted Budget vs. EFC
10 GUIDEWAY & TRACK	\$595.6	\$599.6	\$489.1	\$298.3	\$595.1	\$4.5
20 STATIONS	\$376.1	\$386.7	\$134.3	\$36.8	\$386.7	\$0.0
30 SUPPORT FACILITIES: YARD, SHOP	\$5.3	\$5.3	\$6.4	\$5.2	\$6.4	(\$1.1)
40 SITEWORK & SPECIAL CONDITIONS	\$140.8	\$190.5	\$132.3	\$88.7	\$191.6	(\$1.1)
50 SYSTEMS	\$110.9	\$95.1	\$3.2	\$0.9	\$97.4	(\$2.3)
Construction Subtotal (SCC 10 - 50)	\$1,228.7	\$1,277.2	\$765.3	\$430.0	\$1,277.2	\$0.0
60 ROW, LAND, EXISTING IMPROVEMENTS	\$119.9	\$119.9	\$93.3	\$92.8	\$119.9	\$0.0
80 PROFESSIONAL SERVICES	\$420.7	\$427.1	\$277.0	\$204.5	\$427.0	\$0.1
90 CONTINGENCY	\$130.4	\$75.6	\$0.0	\$0.0	\$75.6	(\$0.1)
Capital Total (SCC 10 - 90)	\$1,899.8	\$1,899.8	\$1,135.5	\$727.3	\$1,899.8	\$0.0

The Estimated Final Cost (EFC) for some contract packages have been reassessed and revised as a result of updated design development estimates and the award of Contract N125 at an amount lower than the adopted budget. The current adopted budget values have been updated to reflect the 2016 budget revisions and updated contingency amounts.

Cost Contingency Management

Compared to the baseline amount of \$396.2M, the Total Contingency has decreased by \$37.1M to \$359.1M, which is 30.6% of project work remaining. During this reporting period, a net increase of \$21.7K in the overall project contingency occurred. Detailed information is provided below.

Design Allowance – The baseline Design Allowance of \$113.9M has been fully depleted following the receipt of updated construction cost estimates on the N140, N150, and N160 Station Finishes contracts. DA has been utilized as scope development has progressed to 90% on N140, and 100% on N150 and N160. No changes to DA occurred during this period.

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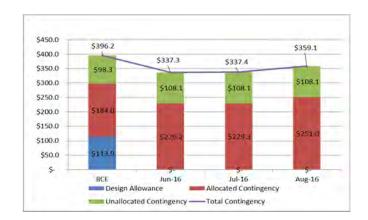


Cost Contingency Management, continued

Allocated Contingency – Compared to the baseline amount of \$184.0 million, Allocated Contingency has increased by \$67 Mto \$251 million. During this reporting period, AC was increased by a total of \$21.7M following award and commitment of contracts N160 and N180, which allocated 17.4M and 10.7M in contingency, respectively. Offsetting those new contingency allocations, AC was used to increase Systems Final Design funding and establish Systems DSDC (\$5.2M), execute a CO for added construction management services for N180 Trackwork (\$1.1M), and execute miscellaneous changes on the N125 Tunneling contract (\$155K).

Unallocated Contingency – Compared to the baseline amount of \$98.3M, Unallocated Contingency has increased by \$9.8M to \$108.1M. No changes to UAC occurred during this period.

		Base	line		Current					
Contingency Status	Amount		% of Total	A	mount	% of Work Remaining				
Design Allowance	\$	113.9	5.3%	\$	•	0.0%				
Allocated Contingency	\$	184.0	8.6%	\$	251.0	21.4%				
Unallocated Contingency	\$	98.3	4.6%	\$	108.1	9.2%				
Total	\$	396.2	18.6%	\$	359.1	30.6%				



Project Schedule

The N105 Contractor Pellco Construction completed removal of hazardous material from the structures at both the Northgate Site C and Key Bank sites. The buildings on both sites have been demolished. Pellco is currently grading Site C, and installing lighting and sidewalks. The Key Bank site may be delayed due to additional hazardous material removal that was not anticipated. The Contractor is planning on completing the work at Site C by the first week of October. Work at the Key Bank site is now scheduled for early January 2017. No follow on impacts are anticipated.

Work on the N111 contract is complete. ST's CM team is continuing to work with Walsh Constructors toward final acceptance.

The N113 SCL 115kV Relocation contractor Potelco began the drilled shafts and installation of the direct imbed pole bases. Potelco has submitted their revised baseline schedule. Substantial Completion remains February 21, 2017.

The N125 Tunneling Contractor completed mining under the University of Washington. Cross passage construction continues. The Contractor's August schedule update has not been received by ST, it is anticipated that it will continue to show negative float in achievement of the contract milestones.

The N140 U District Station 100% Design was submitted August 5th. ST and Hoffman continue to work toward resolution of the cost differences between the Engineers Estimate and the current Hoffman estimate. ST continues to work with the City of Seattle on the Master Use Permit, SIP, and Building Permits and should be able to resolve all comments by November 2016.

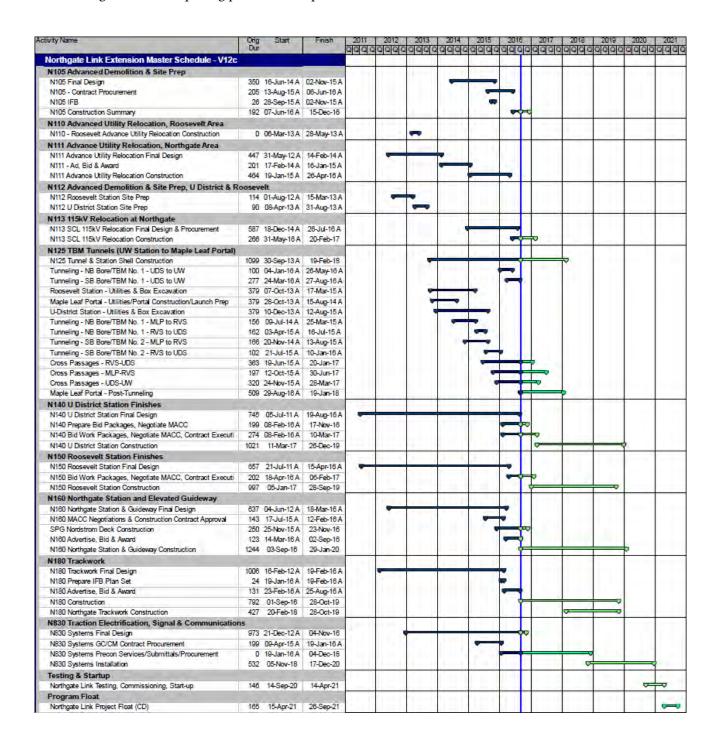
The N150 Roosevelt Station GC/CM (Hoffman) is bidding several major subcontractor bid packages. ST is reviewing the initial cost estimate. MACC negotiations have been pushed back into September/October. Board approval has now slipped to November 2016.

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Project Schedule, continued

The N160 Northgate Station construction contract is proceeding toward execution, expected in early to mid-September 2016.

The N180 Trackwork NTP was issued August 26th. Stacy and Witbeck is mobilizing personnel to begin the procurement of rail, and pre-cast track slabs. ST is still awaiting a decision from FTA on the Buy America waiver request for the Ultra-Straight Rail and exploring procurement option with the Contractor.

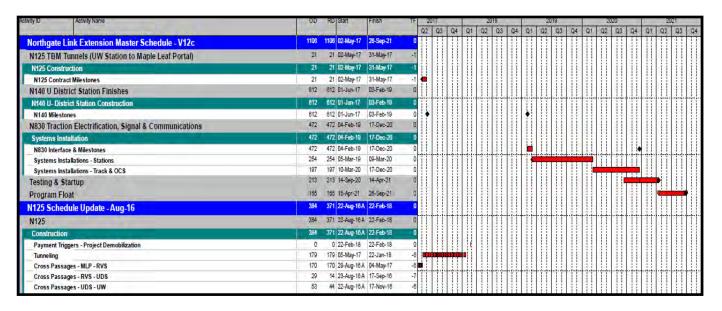


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Critical Path Analysis

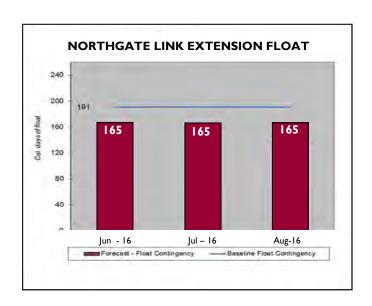
The longest path through the Northgate projects is now driven by the N125 contract and turnover of the UDS box to N140, and subsequently to the N830 Systems contract. The N160 contract is near critical due to access dates on site and overall duration of the contract.



Critical Path Float

The Northgate Link Project currently retains 165 days of unallocated project float. To date, ST has been able to work with both the GC/CM contractors for the stations and the N125 Contractor to explore means of performing concurrent operations in order to maintain the overall project schedule.

The Revenue Service date for the Northgate Link Extension remains September 2021.



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Construction Safety

Data/ Measure	August 2016	Year to Date	Project to Date
Recordable Injury/Illness Cases	2	10	45
Days Away From Work Cases	0	1	3
Total Days Away From Work	0	5	219
Restricted or Modified Work Cases	2	4	22
Total Days Restricted or Modified Work	10	28	891
First Aid Cases	0	20	45
Reported Near Mishaps	3	7	48
Average Number of Employees on Worksite	269	-	-
Total # of Hours (GC & Subs)	55,000	455,132	1,724,332
OSHA Incident Rates	Monthly Average	Year to Date	Project to Date
Recordable Injury Rate	7.27	4.39	5.22
DART Rate	7.27	2.20	2.90
Recordable National Average	3.60	3.60	3.60
DART National Average	2.00	2.00	2.00
Recordable WA State Average	7.20	7.20	7.20
DART WA State Average	3.30	3.30	3.30

Right of Way

The U District and Roosevelt stations require the acquisition of a range of property interests including fee takings for stations and staging areas; tunnel easements are required for the running tunnel. These acquisitions will result in owner and tenant, residential and commercial relocations.

Roosevelt Station – All parcels have been acquired. One parcel de-certified.

U District Station – All parcels have been acquired. One parcel de-certified.

Northgate Station - Arbitration scheduled for two parcels.

Tunnel Easements: All parcels have been acquired.

Line Section	Total Parcels Certified	Offers Made	Signed Agree- ments	Admin. Settle- ments	Posses- sion and Use (P&U)	Closings to date	Baseline Relocations Required	Relocations Completed
U District Station	15	15	0	0	0	15	3	3
Roosevelt Station	19	19	0	0	0	18	26	26
Tunnel Easements	190	188	0	0	0	188	0	0
Northgate Station	П	11	I	0	2	6	13	13
Total	235	233	1	0	2	227	42	42

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Quality Assurance Activities

Activities

 N125– MRB has dispositioned as Acceptable one NCR.

Issues

• None to report.

<u>Summary</u>

Description	Aug 2016	Notes
No. of Audits Planned	0	None
No. of Audits Completed	0	None
Reports in Progress	_	N160 100% Design Submit-
No. of Audits Post- poned	0	None

Sound Transit Board Actions

Board Action	Description	Date
M2016-88	Execute a contract with Absher Construction Company to construct the Northgate Station, Elevated Guideway & Parking Garage within the Northgate Link Extension in the amount of \$174,000,000, with a 10% contingency of \$17,400,000, for a total authorized contract amount not to exceed \$191,400,000, subject to resolution of any timely protests and appeals.	Aug 25

Community Outreach

- Distributed various construction alerts regarding the following:
 - Cross passage breakout;
 - Closure of alley way for N105;
 - Work for Cross Passage 31;
 - Transmission pole foundation drilling (N. 115th St.)
 - Exploratory borings at 12th Avenue NE.
- Emailed weekly updates regarding surface cross passage work.
- Placed A-boards on UWS platform to inform riders of construction noise for the TBM hole through.

Business Mitigation

Met with various business owners and checked business progress; installed a banner outside a restaurant to boost their customer base; and discussed a Yelp campaign to help bring in business.

Environmental

• None to report.

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Link Light Rail Northgate Link Extension - Final Design

Final Design Overview

Sound Transit has executed two key contracts with professional services consultants for the Final Design of the Northgate Link Extension. Jacobs Associates (JA) is providing civil engineering and architectural final design services. LTK Engineering Services (LTK) is providing systems engineering final design services.

Final Design Activities

<u>Contract Package N140</u> - *U District Station Civil and Finishes:*

- Completed 100% design effort and delivered package August 5.
- Began responses to 100% review comments.

Contract Package N150 - Roosevelt Station Civil and Finishes:

• Continued bid support as needed.

<u>Contract Package N160</u> - Northgate Station, Aerial Guideway and Parking Garage Civil and Finishes:

• None to report.

Contract Package N180 - Trackwork:

• None to report.

<u>Contract Package N830</u> – Traction Electrification, Signals, and Communications:

- Closed out comments from the 90% N830/E750 submittal
- Worked with N830/E750 GCCM Contractor on 90% quantity reconciliations.
- Worked on N830/E750 System QA Drawings and Specifications.
- Prepared N830/E750 100% submittal drawings and specifications.

Final Design Schedule

The table below summarizes the current civil Final Design submittal schedule for each contract package.

WIDI	<u>6</u>	<u>60%</u>		<u>90%</u>		<u>100% to ST</u>	
Work Packages	<u>Plan</u>	<u>F/A*</u>	Plan	<u>F/A*</u>	<u>Plan</u>	<u>F/A*</u>	
N105 Key Bank Demolition and Remediation	7/31/2014	7/31/2014A	10/3/2014	10/3/2014A	2/23/2015	6/18/2015A	
NIII Advanced Utility Relocation – Northgate	12/21/2012	5/23/2013A	3/29/2013	10/14/2013A	7/12/2013	1/31/2014A	
N113 115kV Relocation at Northgate	10/29/2013	11/21/2014A	3/27/2014	8/5/2015A	6/19/2014	10/2/15A	
N140 U District Station Finishes	12/24/2011	4/27/2012A	9/18/2012	12/11/2015A	5/10/2013	8/12/16A	
N150 Roosevelt Station Finishes	4/13/2012	2/27/2012A	1/28/2013	12/18/2014	10/23/2013	11/20/15A	
N160 Northgate Sta. Civil/Finishes/Guideway	6/27/2012	10/5/2012A	4/17/2013	3/7/2014A	11/26/2013	2/5/16	
N180 Trackwork	8/23/2012	8/23/2012A	5/22/2013	4/8/2013A	8/26/2013	1/14/16A	
N830 Traction Electrification, Signals, Communications	12/12/2012	12/20/2012A	4/10/2014	1/29/16	12/9/2014	9/6/16	

F/A* = Forecast/Actual

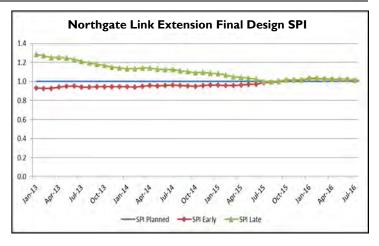
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Link Light Rail Northgate Link Extension - Final Design



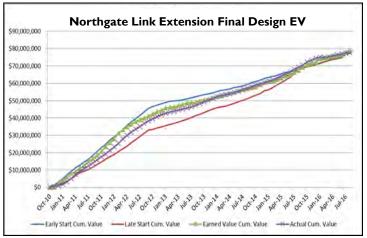
Final Design Schedule Performance

For Final Design activities only, the Schedule Performance Index (SPI) reported this period is 1.02 based on the early start date, and the late start SPI is also 1.02. The final major deliverable for N140 100% design has been provided under the Civil Final Design contract, with final adjustments pending for the 100% pricing set. The only remaining deliverable is the N830 100% package due in September.



Final Design Cost Performance

Through this period, the total amount spent on the civil final design contract (including DSDC) is \$85.8M, which is approximately 87.6% of the total contract amount including change orders. For final design activities only, the total amount spent is \$77.8M, which is 98.6% of the current final design contract value. The consultant reported 100% complete for final design activities, resulting in an Earned Value of \$78.9M. The current period Cost Performance Index (CPI) is reported at 4.2, but cumulative CPI remains 1.0, which indicates that overall expenditures are in line with planned cost.



Other Key Final Design Activities

Geotechnical Investigation

• None to report.

Surveying and ROW

- Edited Transportation Easement #1. *Traffic Engineering Report*
- None to report.

Permits

- Incorporated Contract N140 90% SIP comments.
- Reviewed and responded to Contract N140 MUP corrections.
- Continued development of ROD matrix for Contract N140 100% package.
- Responded to Contracts N150 and N160 90% SIP comments.

Noise Mitigation for At Grade and Elevated Guideway

• None to report.

Ground Borne Noise and Vibration

• None to report.

Construction Cost Estimating

• Completed and reconciled N140 100% estimate.

Quality Assurance

 Submitted 100% Quality Assurance Audit Report for N140.

Design and Project Integration

- Integration and coordination with Systems Consultant (LTK) and continued as continued as required.
- Integration Control Document (ICD) Log: No new ICDs were raised during this period, and the overall total remained at 148: 130 closed and 18 currently remain open. The majority of the open ICDs refer to Contract N140, which has 8 open ICDs.

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Major Construction Contract Packages

Below are the major construction contract packages for the Northgate Link Extension 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.

N110 Utility Relocation at Roosevelt Station Area - Relocation of electrical and communication facilities at the Roosevelt Station site. (Complete)

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

N112 U District and Roosevelt Station Site Preparation - Demolition of existing structures, grading and paving at the U District and Roosevelt Station sites. (Complete)

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

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.

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.

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.

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

Construction Schedule Highlights

Package	Package Bid Advertisement NTP		Substantial Completion
N105-Advance Demolition & Site Prep	ce Demolition & Site Prep Mar 2016A May 2016A		Jan 2017
NIII-Advanced Utility Relocation	Sept 2014A	Jan 2015A	Mar 2016A
N113-SCL 115kV Relocate	Feb 2016A	June 2016A	Feb 2017
N125-Station Box Exc. & TBM Tunnels	Jan 2013A	Sep 2013A	Jan 2018
N140-U District Station Finishes	Oct 2013A (GC/CM-Precon)	Jun 2017 (construction)	Jan 2020
N150-Roosevelt Station Finishes	Apr 2013A (GC/CM-Precon)	Jan 2017 (construction)	Sep 2019
N160-Northgate Station & Guideway & Parking Garage	Apr 2016A	Sept 2016	Nov 2019
N180-Trackwork to Northgate Station	Apr 2016A	Sept 2016	Jul 2019
N830-Traction Power, Signals & Com	May 2015 (GC/CM-RFQ)A	Jan 2018 (construction)	Dec 2020

A = Actual

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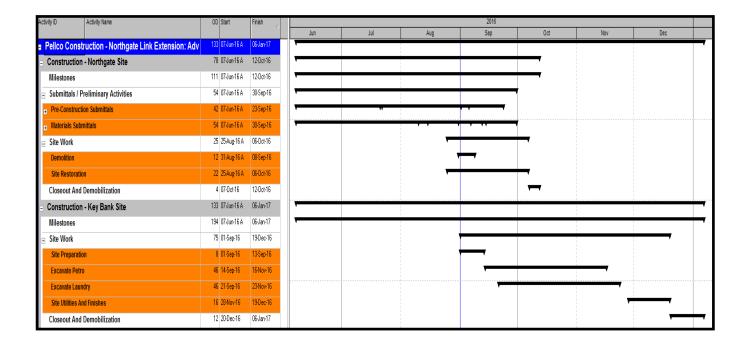
Contract N105- Advanced Demolition and Site Prep

Current Progress

The N105 Contractor, Pellco Construction, has demolished the structures at both Key Bank and Site C. Lighting and grading are taking place at Site C. Underground Storage Tank (UST) removal is underway at the Key Bank Site.

Schedule Summary

The August schedule update submitted by Pellco, shows a delayed completion at the Key Bank site of 15 days resulting from the discovery of mischaracterized material on the building soffits. The project incurred a delay while the soffit material was investigated and a removal plan developed. The work at Site C was forecast to complete on October 12 with site grading being the driving factor. ST is currently evaluating the delays to the work via Time Impact Analysis.



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Key Activities

Current Period

Northgate Site

- Completed hauling of demolished concrete building slabs and rubble from site; completed restoration of rockery wall located at the eastern portion of the project.
- Completed surveying the site for grade and new utilities.
- Completed testing, cleaning, and removing the unidentified Underground Storage Tank (UST) found.
- Continued rough grading of site.
- Continued resurfacing restoration at the north Silver Platter building wall where the breezeway was removed.

Key Bank Site

- · Completed hauling off demolished and salvaged recyclable material.
- Completed removal and hauling of demolished concrete None this period. building slabs and rubble from site.
- Completed saw cutting and removing asphalt for excavation at the west side of site.
- Completed locating and exposing UST at the west excavation site.

Next Period

Northgate Site

- Continue restoring the north wall of the Silver Platter
- Complete rough grading the site.
- Commence installation of new storm water and electrical lines.

Key Bank Site

- Complete cleaning and removing UST from west excavation site.
- Commence excavation of contaminated material from west side of site.

Closely Monitored Issues

Cost Summary

Present Financial Status	Amount
N105 Contractor - Pellco Construction	
Original Contract Value	\$2,691,500
Change Order Value	\$ -
Current Contract Value	\$2,691,500
Total Actual Cost (Incurred to date)	\$662,730
Financial Percent Complete:	24.6%
Physical Percent Complete:	23.0%
Authorized Contingency	\$269,150
Contingency Drawdown	\$ -
Contingency Index	N/A



Demolishing building foundation at Key Bank site.

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Contract N111 – Advanced Utility Relocation

Close-out Schedule

The N111 contract was Substantially Complete on April 26, 2016. The infrastructure has been turned over to Seattle City Light. Walsh Constructors have demobilized from the site. No further schedule updates will be made for this project. ST and Walsh are in the process of completing the remaining change orders and negotiating extended overhead and entitlement. Walsh's final schedule update was rejected because the schedule did not represent a time impact analysis that could be used to determine entitlement.

Key Activities

Current Period

• Contractor working to complete final punch-list items for third-party utilities.

Next Period

- Continue contract close-out tasks.
- Make final progress payment.
- Issue Acceptance.

Closely Monitored Issues

• Contractor has submitted an RFC for extended overhead costs, but without required cost and schedule substantiation. A formal response is being prepared.

Cost Summary

Present Financial Status	Amount		
NIII Contractor - Walsh Construction			
Original Contract Value	\$9,370,000		
Change Order Value	\$792,921		
Current Contract Value	\$10,162,921		
Total Actual Cost (Incurred to date)	\$9,812,850		
Financial Percent Complete:	97%		
Physical Percent Complete:	99%		
Authorized Contingency	\$937,000		
Contingency Drawdown	\$792,921		
Contingency Index	1.17		

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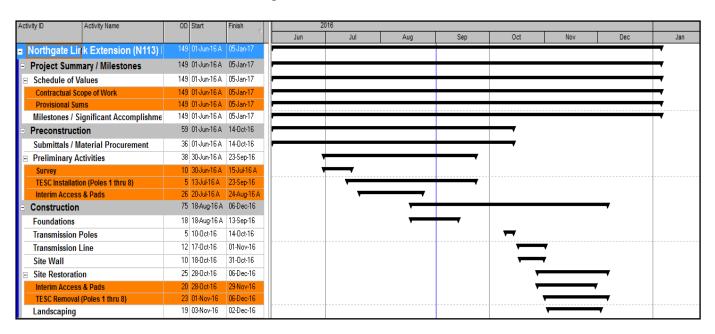
Contract N113-115kv Relocation at Northgate Station

Current Progress

The N113 Contractor completed preparing the access at all pole locations, installed drilled shafts for Poles 1-7, and placed foundation concrete for Poles 1, 2, 3, 6, and 7 in August. It was determined that Pole 8 will require an additional 10 ft of depth, but a schedule impact is not forecast.

Schedule Summary

The N113 Contractor's August schedule update forecasts an on-time completion of the work. ST is working with Potelco to address technical issues with the update.



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Key Activities

Current Period

- Completed drilling and pouring of Pole 2 and 3
- foundations.
- Completed pouring Pole 1 foundation.
- Completed layout and drilling for Pole 4 and 5.
- Drilled and placed concrete at Pole 6 and 7, and backfilled pole bases.

Next Period

- Complete drilling and pouring of Pole 8 foundation.
- Continue preparations for 2nd outage and planned rolling slowdown.
- Begin general assembly of poles and hardware.
- Assemble and set Poles 2-7.
- Begin installation of insulators and grounding at Poles 2-7.

Closely Monitored Issues

• None this period.

Cost Summary

Present Financial Status	Amount
NII3 Contractor - Potelco, Inc	
Original Contract Value	\$2,811,926
Change Order Value	\$ -
Current Contract Value	\$2,811,926
Total Actual Cost (Incurred to date)	\$1,454,475
Financial Percent Complete:	51.7%
Physical Percent Complete:	43%
Authorized Contingency	\$281,194
Contingency Drawdown	\$ -
Contingency Index	N/A



Foundation concrete pour of Pole 2.

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Contract N125 – TBM Tunnels

Current Progress

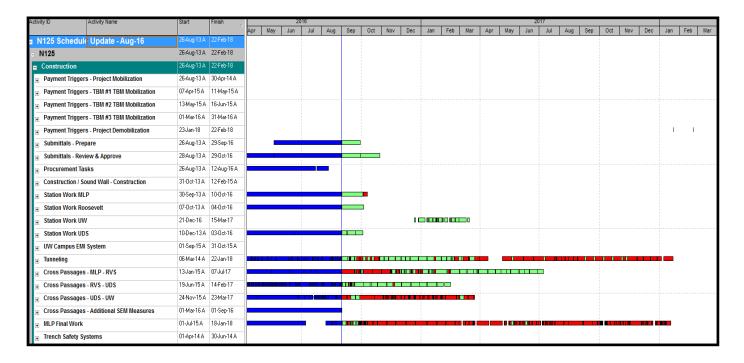
JCM has completed the final tunneling segment to UWS. Post-tunneling invert and troughs, and construction of the cross passages continue.

Tunneling Operations – TBM No. 1 continued mining operations toward the UW Station and is planned to hole-through on September 1. JCM will then begin the demobilization of operations in Area B in preparation of turnover to N160. Turnover is scheduled for October 14, 2016.

Cross Passage Construction—Work in progress at the end of August included ground freezing and in-tunnel freezing at multiple cross passages; and waterproofing installation, crown excavation, invert rebar installation and finishing work at various other CPs along the alignment.

Schedule Summary

The longest path through the schedule is driven by the in-tunnel ground freezing for Cross Passages 37 and 38 (negative six days of float), which in turn drives the completion of electrical and mechanical work in the southbound tunnel between Maple Leaf Portal and Roosevelt Station. Cross Passages 31, 24, and 22 are also on the longest path as a result of Out-of-Sequence logic issues. Milestone 2—the Turnover of RVS is 12 days behind the contract requirement and Milestone 6—Substantial Completion is 11 days behind.

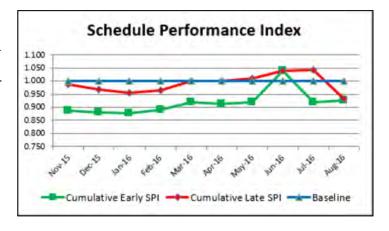


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Schedule Performance Index

The August schedule update reports a Performance Percent Complete of 83% with a Cost Percent Complete of 83.3%. The early SPI for this period remains 0.9, essentially unchanged from the 0.9 obtained in July. The late SPI dropped to 0.9 from 1.0 due to slippage in the cross passage work.



Key Activities

Current Period

- Continued SB TBM mining from UDS to UWS. Total todate progress is 3, 352 rings.
- Completed/continued various cross passage activities including, internal electrical work, repairing/patching spiles, draining holes and endcaps, installing endcaps rebar, installing electrical embedments and formwork and waterproofing.
- Completed UWS TBM retrieval site set-up for the arrival of the SB TBM and completed restoration of UWS plaza surface area.
- Completed TBM SB tunnel mining from UDS to entrance of UWS.

Next Period

- Continue various cross passage activities throughout the tunnels.
- Continue pouring tunnel invert.
- Continue installation of tunnel permanent standpipe.

- Complete hole-thru of SB TBM at UWS and begin dismantling of TBM.
- Begin dismantling of tunnel conveyor system.
- Begin relocating water treatment plant and removal of muck bin at MLP and demobilizing from Area B.

Closely Monitored Issues

• The third phase of investigatory boreholes on 12th Ave NE is complete. Report from Shannon & Wilson on any further areas of concern with regard to possible voids is awaited.

Cost Summary

Present Financial Status	Amount
N125Contractor - JCM Northlink	
Original Contract Value	\$440,321,000
Change Order Value	\$ 44,477,677
Current Contract Value	\$484,798,677
Total Actual Cost (Incurred to date)	\$400,972,786
Financial Percent Complete:	83%
Physical Percent Complete:	803%
Authorized Contingency	\$66,048,150
Contingency Drawdown	\$44,477,677
Contingency Index	1.23



Breaking through NB tunnel segments at CP31.

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Contract N180 - Trackwork UWS to Northgate Station

Current Progress

The N180 Contractor, Stacy and Witbeck, received NTP on August 25, 2016, and has begun preparation of early submittals to ST. ST is also discussing the options for procurement of the Ultra-Straight Rail, through the N180 contract rather than as a separate procurement. A decision will be made once the outcome of the requested Buy America waiver is known.

A preliminary baseline schedule has been submitted and is under review.

Key Activities

Current Period

• Notice to Proceed was issued on August 25, 2016.

Next Period

- Hold preconstruction kickoff meeting.
- Begin receiving early submittals.

Closely Monitored Issues

• FTA Buy America waiver will be required to use foreign supplier of Ultra Straight Rail as no known domestic supplier exists.

Cost Summary

Present Financial Status	Amount
NIII Contractor - Stacy and Witbeck, Inc.	
Original Contract Value	\$71,455,950
Change Order Value	\$0
Current Contract Value	\$71,455,950
Total Actual Cost (Incurred to date)	\$0
Financial Percent Complete:	0%
Physical Percent Complete:	0%
Authorized Contingency	\$10,718,393
Contingency Drawdown	\$0
Contingency Index	N/A

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Link Light Rail Lynnwood Link Extension



Scope

Limits: North Seattle to Shoreline, Mountlake

Terrace, and Lynnwood Transit Center

Alignment: Lynnwood Link 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 at-grade, elevated, and retained

cut/fill alignment.

Stations: NE 145th (Shoreline), NE185th

(Shoreline), Mountlake Terrace Transit Center, Lynnwood Transit Center

Systems: Signals, traction power, and communica-

tions (SCADA).

Budget: \$487.9 Million Phase Gate 4 budget; ex-

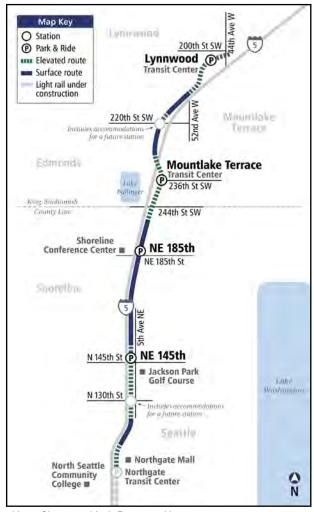
cludes Construction (Year of Expenditure

Dollars)

Phase: Final Design

Const. Starts: 2018

Service: Late 2023



Map of Lynnwood Link Extension Alignment.

Key Project Activities

Final Design

- Executed Civil Final Design contract with HNTB Jacobs in April 2016.
- Executed Systems Final Design contract with LTK Engineering in July 2016.

Pre-Construction Services

- Executed Civil Construction Management contract with PGH Wong in May 2016.
- Executed GC/CM contract with Stacy and Witbeck–Kiewit–Hoffman for L200 (south segment) pre-construction services in May 2016. Developing 30% cost estimate and construction schedule.
- For L300 (North Segment), selected Skanska Constructors L300, JV as the GC/CM contractor with
- Anticipate starting Systems pre-construction services in 2017.

Third Parties

- Received Project Rating and Entry to Engineering Approval from FTA in February 2016.
- Executed a design review agreement with WSDOT.
- Advancing formal agreements with City of Seattle, City of Shoreline, City of Mountlake Terrace, City of Lynnwood, and utility providers.

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Link Light Rail Lynnwood Link Extension

Project Cost Summary

The Lynnwood Link 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	Current Adopted Budget	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Adopted Budget vs. EFC
Administration	\$88.3	\$10.1	\$10.0	\$88.3	\$0.0
Preliminary Engineering	\$42.0	\$39.9	\$39.0	\$42.0	(\$0.0)
Final Design	\$111.5	\$70.4	\$4.6	\$111.5	\$0.0
Construction Services	\$104.9	\$12.7	\$0.2	\$104.9	\$0.0
3rd Party Agreements	\$17.4	\$2.0	\$0.7	\$17.4	\$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	\$123.8	\$9.6	\$6.6	\$123.8	\$0.0
Total	\$487.9	\$144.7	\$61.1	\$487.9	\$0.0

Cost Summary by SCC

SCC Element	Current Adopted Budget	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Adopted Budget 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	\$123.8	\$9.6	\$6.6	\$123.8	(\$0.0)
80 Professional Services	\$364.1	\$135.1	\$54.5	\$364.1	\$0.0
90 Unallocated Contingency	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Total (10 - 90)	\$487.9	\$144.7	\$61.1	\$487.9	\$0.0

Risk Management

The Lynnwood 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 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, 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 next Lynnwood Link Quarterly Risk Review Meeting is scheduled for August 2016.

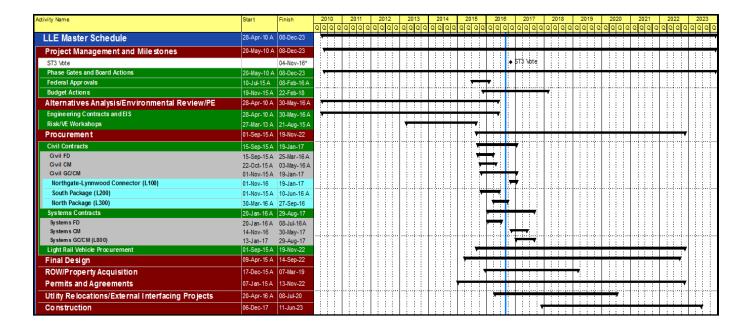
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Link Light Rail Lynnwood Link Extension



Project Schedule

The project schedule is shown below. The anticipated revenue service date is late 2023.



Sound Transit Board Actions

Board Action	Description	Date
	None to report.	

Community Outreach

- Emailed update on the new station plans; community members were encouraged to attend station design workshops in November to view and comment on the new plans when they are ready for public input.
- Met with potentially impacted property owners to discuss the new plans, and review possible schedule and timing of acquisitions as well as property valuation and relocation process for the 145th Station Revisions
- Distributed project information and provided doorto-door outreach to residents near Mountlake Terrace.
- Contacted 12 property owners with advance notice for onsite monitoring of existing wells.

Quality Assurance Activities

Activities/Issues

• None to report. <u>Summary</u>

Description	Aug 2016	Notes
No. of Audits Planned	0	None
No. of Audits Completed	0	None
Reports in Progress	ı	LLE
No. of Audits Postponed	0	None

Environmental

None to report.

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Link Light Rail Lynnwood Link Extension Final Design - Civil

Civil Final Design Overview

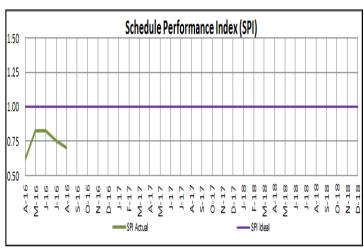
Sound Transit executed a professional services contract with HNTB Jacobs in April 2016 to perform Civil Final Design Services.

Civil Final Design Activities

- Reviewing preliminary engineering design, and preparing design methodologies.
- Progressing L100, L200 & L300 60% Design.

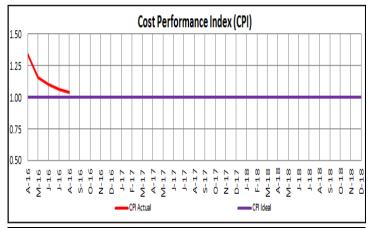
Civil Final Design SPI

The cumulative Schedule Performance Index (SPI) trends at 0.71 through August 2016, which means that cumulative work accomplished is less than work planned. Currently Civil Final Design is behind schedule due to delayed decision making with local jurisdictions at station locations. Sound Transit has approved a shift in Milestone dates and is currently coordinating with HNTB | J to finalize the current schedule update and associated plan.



Civil Final Design Cost Performance

\$5.5 M of the total contract amount, 7.9%, has been spent through August 2016. The Civil Final Design percent complete is 8%, with an earned value of \$5.8M. The cumulative Cost Performance Index (CPI) through August is 1.04 indicating that expenditures are less than the earned value.



Final Design Performance	Previous Period	Current Period	Cumulative To-date
Amount Invoiced	\$3,992,330	\$1,560,461	\$5,552,791
% Spent	5.6%	2.3%	7.9%
Earned Value	\$4,253,638	\$1,530,808	\$5,784,446
% Complete	6.0%	2.2%	8.2%
SPI	0.75	0.61	0.71
СРІ	1.07	0.98	1.04

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Link Light Rail Lynnwood Link Extension Final Design - Systems



Systems Final Design Overview

Sound Transit executed a professional services contract with LTK Engineering in July 2016 to perform Systems Final Design Services.

Systems Final Design Activities

- Held Systems Final Design kickoff and coordination meetings.
- Began coordinating Baseline Schedule and Earned Value data.

Systems Final Design SPI

Currently coordinating Baseline Earned Value data for reporting in September 2016.

Systems Final Design Cost Performance

\$5K of the total contract amount, 0.1%, has been spent through August 2016. The Systems Final Design percent complete will be reported starting September 2016 as Sound Transit is currently coordinating Baseline Earned Value data with LTK.

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Link Light Rail SOUND TRANSIT Lynnwood Link Extension Construction Mgmt - Civil

Construction Management Overview

Sound Transit executed a professional services contract with PGH Wong in May 2016 to perform Civil Construction Management Services.

Civil Construction Management Activities

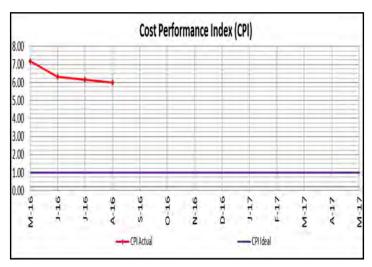
Mobilizing Construction Management team, reviewing preliminary engineering design, cost estimates, and schedule.

Civil Construction Management SPI

Work by the CMC is on a level-of-effort basis to support Sound Transit during the final design/pre-construction period. Earned value for level-of-effort is calculated as equal to the planned value, so SPI = 1.00.

Civil Construction Management Cost Performance

\$178K of the total contract amount, 2.4%, is estimated to be spent through August 2016. With an earned value of \$1.07 M. The cumulative Cost Performance Index (CPI) through August is 6.01; indicating costs savings on the project. The monthly CPI for August was significantly high at 5.64. The Consultant assumed more support staff would be engaged early in the contract schedule but that has not been the case, thus leading to the inflated CPI.



Final Design Performance	Previous Period	Current Period	Cumulative To-date
Amount Invoiced	\$125,607	\$52,740	\$178,347
% Spent	1.6%	.7%	2.4%
Earned Value	\$774,238	\$297,571	\$1,071,809
% Complete	6.16	5.64	6.01
СРІ	0.84	0.63	0.75

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Link Light Rail Lynnwood Link Extension GC/CM Pre-Construction



GC/CM Pre-Construction Overview - L200 (South Segment)

Sound Transit executed a professional services contract with Stacy & Witbeck Kiewit Hoffman in June 2016 to perform GC/CM Pre-Construction Services for the L200 segment.

GC/CM Pre-Con Activities

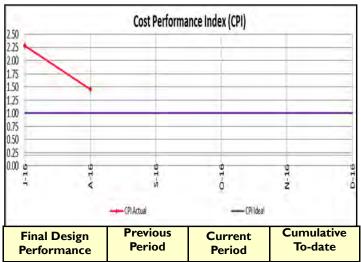
 Mobilizing Construction Management team, reviewing preliminary engineering design, cost estimates, and schedule.

GC/CM Pre-Con Schedule Performance

Driving the L200 GC/CM Contract is the LLE Final Design contract; GC/CM Pre-Construction work is on a level-of-effort basis to support Sound Transit during the final design/pre-construction period. Earned value for level-of-effort is calculated as equal to the planned value, so SPI = 1.00.

GC/CM Pre-Con Cost Performance

\$643K of the total contract amount, 12.6%, is estimated to be spent through August 2016. With an earned value of \$936K. The cumulative Cost Performance Index (CPI) through August is 1.45; indicating actual costs are lower than planned. The monthly CPI for August was high at 1.62.



Final Design Performance	Previous Period	Current Period	Cumulative To-date
Amount Invoiced	\$409,689	\$233,604	\$643,293
% Spent	11.4%	4.6%	12.6%
Earned Value	\$558,070	\$377,671	\$935,742
% Complete	1.36	1.62	1.45
СРІ	0.84	0.63	0.75

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





The project, when completed, will enable 24/7 HOV access on I-90 between Seattle, Mercer Island and Bellevue.

Scope:

The I-90 Two-Way Transit and HOV Operations (Stage 3) project will provide approximately four miles of the 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, the installation of screening on the shared—use pathway on the I-90 floating bridge. Following completion of this project, the center roadway will be closed to allow the construction and operation of East Link Extension.

Budget: \$225.6 Million Major Contracts

Phase: Construction

Construction Start: January 2015

Construction Completes: June 2017

	Scope	Agreement/Contract
	эсоре	Amount
WSDOT	Final Design	\$ 20,942,000
WSDOT	CM Services	\$ 16,358,000
IMCO	Construction	\$122,021,000

Key Project Activities

- Work outside the tunnels Install pedestrian railing, Tie rebar for barrier at ICW, install roadway signs.
- Mercer Island Tunnel (MIT) Adjustable speed drive supply fan repair, westbound supply plenum upgrades, install
 plenum doors, dual zone drain stands, test dual zone proportioned 20A/B, EB Saccardo sprinkler hydro test, LIOP
 upgrades.
- *Mount Baker Ridge Tunnel (MBRT)* Install egress sliding doors and pedestrian path doors, fan installation, welding and LV controls, import materials for Central fan room, exhaust port adjustments.
- SCADA Simplex interface, closed circuit panel production; existing panel retrofit design; control strategy meeting sessions.
- Simplex Testing new software, MIT LIOP Upgrade camera, programming narrative revision.

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

Closely Monitored Issues

- Schedule Update: IMCO requested for the use of Owner Controlled Float; request under review.
- Progress of issue resolution by joint technical task force (Implemented after the last executive meeting).
- Material lead times for fan wiring and controls.
- SCADA/SIMPLEX implementation progress.
- Additional technical effort and upcoming staffing plan for consultants.

Project Cost Summary

Total Project Costs expended this period is \$7.9M. The following tables summarize the cost information for the I-90 Two- way Transit and HOV Operations (Stage 3) project. Tables in millions.

Project Elements by Phase	Baseline Budget	Current Adopted Budget	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Adopted Budget vs. EFC
Administration	\$3.6	\$3.6	\$1.6	\$1.6	\$3.6	\$0.0
Preliminary Engineering	\$1.5	\$1.5	\$1.5	\$1.5	\$1.5	\$0.0
Final Design	\$22.1	\$22.I	\$18.6	\$17.9	\$22.1	\$0.0
Construction Services	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
3rd Party Services	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction	\$198.3	\$198.3	\$166.3	\$106.6	\$198.3	\$0.0
Total	\$225.6	\$225.6	\$188.1	\$127.7	\$225.6	\$0.0

Cost Summary by SCC

Project Elements by SCC	Baseline Budget	Current Adopted Budget	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Adopted Budget vs. EFC
40 Sitework & Special Conditions	\$180.6	\$180.6	\$166.3	\$106.6	\$180.6	\$0.0
80 Professional Services	\$26.3	\$26.3	\$21.7	\$21.0	\$26.3	\$0.0
90 Unallocated Contingency	\$18.7	\$18.7	\$0.0	\$0.0	\$18.7	\$0.0
Project Total (SCC 10-90)	\$225.6	\$225.6	\$188.1	\$127.7	\$225.6	\$0.0

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



Cost Contingency Management

In the table below, the Allocated Contingency includes both WSDOT-controlled construction contingency & the total ST-controlled allocated contingencies. No change to the contingency level since last period.

	Base	eline	Current		
Contingency Status	Amount	% of Total	Amount	% of Work Remaining	
Design Allowance	\$.0.0	0.0%	\$0.0	0.0%	
Allocated Contingency	\$17.0	7.5%	\$15.7	14.8%	
Unallocated Contingency	\$18.7	8.3%	\$18.5	17.4%	
Total	\$35.7	15.8%	\$34.2	32.2%	

Note: Table in millions. Contract does not carry Design Allowance.

Contingency % of Work Remaining based on Contingency Remaining as a % Budget Remaining.

Allocated contingency includes WSDOT-controlled contingency & ST-controlled Contingency.

Project Schedule

The Prime Contractor has submitted a request for the use owner's control float to mitigate anticipated delay for WSDOT consideration. Sound Transit is evaluating the potential impact to E130 schedule, and coordinating with WSDOT for mitigation. Current Project Milestones are indicated below:

Contract		nal Tunnel oning Period		commissioning plete	Substantia	Completion		inal Pavement king	And the second s	ompletion & way Turnove r
I-90 Two-Way	Baseline	Forecast / Actual	Ba seline	Forecast / Actual	Baseline	Forecast / Actual	Baseline	Forecast / Actual	Base line	Forecast / Actual
Transit & HOV Operations Stage 3	12/5/2016	11/17/2016	2/16/2017	2/16/2017	2/20/2017	2/20/2017	5/20/2017	5/20/2017	5/31/2017	5/31/2017

Changes from previous update are indicated in RED

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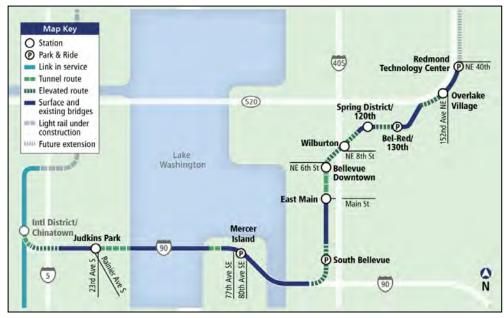


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Link Light Rail East Link Extension





Map of East Link Extension Alignment.

Scope

Limits: Downtown Seattle to Mercer Island, Bellevue and the Overlake area of Redmond.

Alignment: East Link extends light rail 14 miles to East King County from Downtown Seattle serving Mer-

cer Island via I-90, Bellevue and the Overlake area of Redmond, with ten new light rail stations. The alignment configuration includes at-grade, elevated, bridges, new and retrofitted tunnels.

Stations: Judkins Park (formerly Rainier), Mercer Island, South Bellevue, East Main, Bellevue Down-

town, Wilburton (formerly Hospital), Spring District/120th, Bel-Red/130th, Overlake Village

and Redmond Technology Center (RTC).

Systems: Signals, traction power, and communications (SCADA).

Budget: \$3.677 Billion Baseline Budget (Year of Expenditure Dollars)

Phase: Construction

Construction Starts: 2016
Service: June 2023

Key Project Activities

Seattle to South Bellevue

- The East Link Construction Service Agreement is with the City of Seattle for signature.
- Floating Bridge and Fixed Structures: Pricing sets were delivered end of August.
- Judkin's Park and Mercer Island Stations: Pricing sets were delivered end of August.
- WSDOT's Construction Task Orders were executed.
- E130 90% constructability review has been completed; 3,207 comments submitted.
- DAP approved by FHWA, PDA has been started.

South Bellevue to Redmond

• Continued coordination with CM on commitments in the OTC funding agreement on project delivery, right-of-way and delays.

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Link Light Rail East Link Extension

South Bellevue to Redmond (continued)

- *E320*: Bids opened for E320, bid submission review underway. Work to finalize the I-90 Air Space Lease (ASL) and Temporary Construction Air Space Lease (TCAL) continued.
- *E330*: Design of the proposed tunneling approach modification (3 Drift) continued.
- E335: ST and 3rd Parties began reviewing 100% submittal for 120th station and City Hall Plaza. Continued working with WSDOT to finalize the TCAL and ASL for work in I-405 ROW.
- *E340*: Continued working with Bellevue to finalize MOU-related revisions in the vicinity of 130th Station. Bid readiness process continued; preparing to advertise for bids in late September, or early October.
- *E360*: Temporary Construction Air Space Lease was signed by WSDOT. Design task force meeting begun. Continued working with Frontier to finalize agreement for relocation on 152nd.

Project Cost Summary

The East Link project cost is summarized below in two cost categories. In the first table, the cost is summarized in accordance with Sound Transit's 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 this project is \$3,677.2M in year of expenditure dollars. Approximately \$13.8M was incurred this period.

Cost Summary by Phase

Project Phase	Baseline Budget	Current Adopted Budget	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Adopted Budget vs. EFC
Administration	\$186.2	\$186.2	\$49.0	\$48.5	\$186.2	\$0.0
Preliminary Engineering	\$55.9	\$55.9	\$54.5	\$54.4	\$55.9	\$0.0
Final Design	\$283.0	\$283.0	\$230.3	\$179.8	\$283.0	\$0.0
Construction Services	\$257.5	\$257.5	\$137.2	\$14.9	\$257.5	\$0.0
3rd Party Agreements	\$52.2	\$52.2	\$34.7	\$8.0	\$52.2	\$0.0
Construction	\$2,544.3	\$2,544.3	\$373.0	\$37.6	\$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	\$162.9	\$159.0	\$298.2	\$0.0
Total	\$3,677.2	\$3,677.2	\$1,041.7	\$502.3	\$3,677.2	\$0.0

Cost Summary by SCC

SCC Element	Baseline Budget	Current Adopted Budget	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Adopted Budget vs. EFC
10 Guideway & Track	\$744.6	\$744.6	\$174.6	\$15.7	\$727.3	\$17.4
20 Stations	\$397.7	\$397.7	\$73.7	\$0.0	\$431.4	(\$33.7)
30 Support Facilities	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
40 Sitework & Special Conditions	\$808.5	\$808.5	\$97.3	\$20.8	\$795.8	\$12.7
50 Systems	\$353.8	\$353.8	\$6.3	\$0.1	\$352.6	\$1.2
Construction Subtotal (10 - 50)	\$2,304.6	\$2,304.6	\$351.8	\$36.6	\$2,307.1	(\$2.4)
60 Row, Land	\$288.5	\$288.5	\$162.9	\$159.0	\$288.5	\$0.0
70 Vehicles (non-revenue)	\$2.8	\$2.8	\$0.0	\$0.0	\$2.8	\$0.0
80 Professional Services	\$898.4	\$900.3	\$527.0	\$306.7	\$897.8	\$2.4
90 Unallocated Contingency	\$182.9	\$181.0	\$0.0	\$0.0	\$181.0	\$0.0
Total (10 - 90)	\$3,677.2	\$3,677.2	\$1,041.7	\$502.3	\$3,677.2	\$0.0

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Link Light Rail East Link Extension



Risk and Contingency Management

Contingency Status

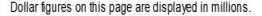
Sound Transit has completed a draft Risk and Contingency Management Plan (RCMP) for East Link, and is currently addressing review comments from the Project Management Oversight Consultant (PMOC). The project's baseline budget, which was approved by the Sound Transit Board in April 2015, contained a total of \$795.9M contingency. This period, total contingency decreased by a net \$0.8M, to a new total amount of \$778.4M. The contingency balance remained higher than the anticipated draw down.

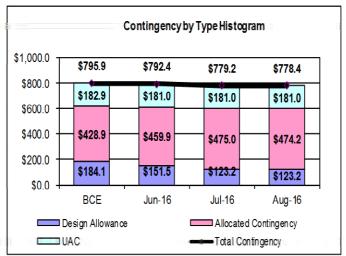
Design Allowance is used to account for scope that could not be quantified at the time of the cost estimate. The total amount of design allowance in the baseline cost estimate was \$184.1M. Design allowance had been drawn down in the prior periods to offset the increase in the base cost estimate as more design details are available for cost estimating. This period, the design allowance balance remained the same as the last period, which was \$123.2M. As the designs continue to be progressed to 100% level and the engineer's cost estimates are prepared, design allowance is expected to be reduced.

Allocated Contingency is used to address risks, complexity and unforeseen conditions during the execution of work, including procurement (market risk). This period, the total amount of allocated contingency decreased by a net \$0.8M. This was due to the execution of a change orders on the E330 contract and I-90 Final Design. Total allocated contingency balance is now \$474.2M.

Unallocated Contingency is used to address general project-wide cost risks and uncertainties. The total amount of unallocated contingency UAC in the baseline cost estimate is \$182.9M. UAC had been drawn down to \$181.0M in the Fall of 2015, but has not been changed since then.

Contingency	В	CE	Current Status		
Status	Amount % of Total Budget		Remaining Amount	% of Work Remaining	
Design Allowance	\$184.1	5.0%	\$123.2	3.9%	
Allocated Contingency	\$428.9	11.7%	\$474.2	14.9%	
Unallocated Contingency	\$182.9	5.0%	\$181.0	5.7%	
Total:	\$795.9	21.6%	\$778.4	24.5%	





Risk Management

The RCMP established 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, 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.

This period, Sound Transit commenced the formal 3rd quarter risk assessment workshops. Sound Transit continued to involve construction contractors who are already under contracts (E130, E330, E335, E360 and E750) in its risks management program.

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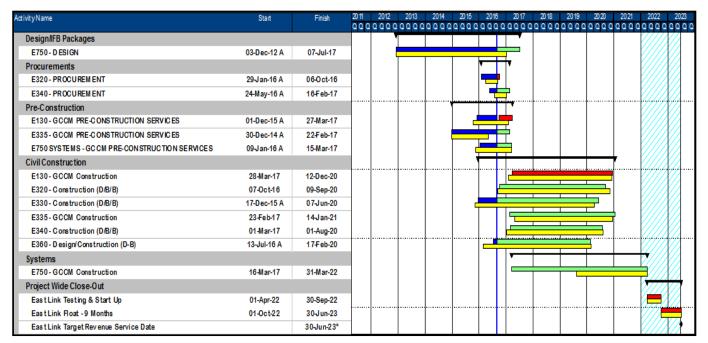
Link Light Rail East Link Extension

Project Schedule

The East Link schedule finalized a thorough team review to ensure accuracy as ST approach the construction phase of the project. Revenue Service is forecasted for June 30, 2023.

East Link contract procurements continue:

- E335 GC/CM (Downtown Bellevue to Spring District) Pre-construction awarded 1st QTR 2015
- E130 GC/CM (I-90 Heavy Civil) Pre-construction and I-90 CMC awarded 4th QTR 2015
- E330 (Downtown Bellevue Tunnel) NTP issued February 8, 2016
- E750 GC/CM (East Link Systems) Pre-construction awarded 1st QTR 2016
- E360 D/B (SR520 to Overlake Transit Center) NTP issued July 13, 2016
- Systems CMC currently in procurement, & scheduled to be awarded 3rd QTR 2016
- E320 (South Bellevue) to be awarded 3rd QTR 2016
- E340 (Bel-Red) scheduled to advertise 3rd QTR 2016



*Note: This schedule represents East Link Schedule Progress. EL Baseline Schedule is represented by lower bar (yellow).

Critical Path Analysis

The <u>critical path</u> continues to run through completion of E130 design and MACC negotiations, which then drives E130 NTP for construction. Issuance of the Dean Street TCAL is on the near critical path with less than a month of float before becoming the critical driver for E130 NTP for construction. And, although the I-90 TCAL will not be activated before June 1, 2017, the E130 PDA (to be signed with I-90 TCAL) needs to be signed prior to NTP, making I-90 TCAL near critical (see graphic on the following page).

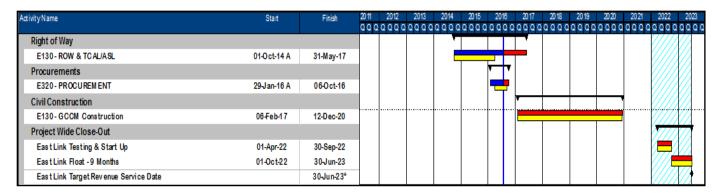
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Link Light Rail East Link Extension



Critical Path Analysis, continued

The East Link critical path schedule is shown below.



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 will result in owner and tenant residential and commercial relocations. The East Link Extension included the advance acquisition of approximately one mile of an existing railroad parcel ("Bellevue Mile") that the Sound Transit Board approved in June 2011. The right-of-way program status for this period is summarized in the following table. Market value trends in both residential and commercial properties are exhibiting strong upward pressure. Appraisals are being adjusted to reflect this increasing trend in the market. The overall impact on the Right-of-Way (ROW) budget is being closely monitored. Efforts are also underway to prioritize acquisitions by contract package to help ensure timely availability of property. Property acquisition is recognized as a high priority and the management team has formed an ad hoc ROW team consisting of internally involved departments to prioritize and manage the process.

East Link Extension Property Acquisition Status										
Line Section	Board Ap- proved	Offers Made/In Negotia- tions	Signed Agree- ments	Posses- sion and Use	Admin Settle- ment	Closings to date	Reloca- tions Required	Parcels Vacated		
Seattle to S. Bellevue	2	1	0	0	0	0	0	0		
S. Bellevue to RTC	237	207	I	20	13	128	229	182		
Bellevue Mile	I	ı	I	0	0	I	0	0		
Total	240	209	2	20	13	129	229	182		

Note: Additional 9 parcels are awaiting certifications and are excluded from the table above. These parcels are tracked separately and will be added to the above table when they are fully certified and approved.

Seattle to S. Bellevue

E130 IDS Rail Connection & IDS & I-90 Upgrades - Air Space Lease discussions with WSDOT continue.

S. Bellevue to RTC parcels

E320 S. Bellevue— One parcel signed and 2 admin settlement parcels2 parcels granted P&U; 1 parcel closed; 1 required relocation became inactive. Air Space Lease discussions with WSDOT continue.

E330 Downtown Bellevue – One admin settlement parcel signed.

E335 – Three parcels closed.

E340 Bel-Red - 7 parcels granted P&U; 3 new relocations identified and 3 parcels vacated.

E360 SR 520 to OTC – One parcel vacated. Air Space Lease discussions with WSDOT continue.

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Construction Safety

Data/ Measure	August 2016	Year to Date	Project to Date
Recordable Injury/Illness Cases	0	0	0
Days Away From Work Cases	0	0	0
Total Days Away From Work	0	0	0
Restricted or Modified Work Cases	0	0	0
Total Days Restricted or Modified Work	0	0	0
First Aid Cases	1	3	3
Reported Near Mishaps	4	10	10
Average Number of Employees on Worksite	42	-	-
Total # of Hours (GC & Subs)	4,900	22,178	22,178
OSHA Incident Rates	Monthly Average	Year to Date	Project to Date
Recordable Injury Rate	0.00	0.00	0.00
DART Rate	0.00	0.00	0.00
Recordable National Average	3.60	3.60	3.60
DART National Average	2.00	2.00	2.00
Recordable WA State Average	7.20	7.20	7.20
DART WA State Average	3.30	3.30	3.30

Quality Assurance Activities

Activities

None to report.

<u>Issues</u>

None to report.

Summary

Description	Aug 2016	Notes
No. of Audits Planned	0	None
No. of Audits Completed	0	None
Reports in Progress	2	E750/N830 90% Design Submittal Audit & E335 100% Design Submittal
No. of Audits Postponed	0	None

Sound Transit Board Actions

Board Action	Description	Date
	None to report.	

Community Outreach

- Emailed construction update to the Central Bellevue list-serve regarding the reopening of the southbound lane on 110th.
- Distributed Business Construction Toolkits to seven businesses and had business relations briefings with some of them.
- Hosted the 5th Downtown Bellevue construction dropin session and six people attended.
- Distributed flyers providing advanced notification of the Phase II Environmental drilling work in the Bel-Red area at Evans Industrial Park.; included a door-todoor outreach to more than 15 work-adjacent business-

Environmental

• Continued developing environmental permit application packages. Environmental commitments are being incorporated into the design, program, and specifications of the project.

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Link Light Rail East Link Extension Final Design - S. Bellevue to RTC



Final Design Scope

Final Design for the East Link Extension includes three major design contracts: two for civil improvements and one for systems improvements. This contract is for civil and architectural design services from South Bellevue to the Redmond Technology Center (RTC). The contract was awarded to H-J-H Final Design Partners, a joint venture of HNTB Corporation, Jacobs Engineering Group, Inc., and Hatch Mott MacDonald.

The scope of H-J-H services includes detailed designs of the corridor, preparation of comprehensive construction contract documents, permitting support, surveying, geotechnical investigations, right-of-way planning, third party coordination, systems coordination, cost estimating, scheduling, sustainability report, bid support, Preliminary Hazards Analysis, and community outreach.

The design is grouped into five Contract Packages: (1) E320 South Bellevue; (2) E330 Downtown Bellevue Tunnel; (3) E335 Downtown Bellevue to Spring District; (4) E340 Bel-Red, and (5) E360 SR-520 to Redmond Technology Center.



Map of South Bellevue to Redmond Technology Center.

Final Design Key Activities

E320 So. Bellevue

- Design of the E320 contract package is complete.
- Continued Bid Support Services.
- Prepared to commence Design Services During Construction.

E330 Downtown Bellevue Tunnel

- Design of the E330 contract package is complete.
- Continued Design Services During Construction.

E335 Downtown Bellevue to Spring District

- Continued preparing the IFB submittal of the Spring District/120th Station and Bellevue City Hall Plaza documents, and incorporating edits/modifications and updates into the E335 IFB documents.
- Submitted the WSDOT I-405 Transportation Management Plan for WSDOT approval.
- Completed coordination and incorporation of the modifications of the Bellevue City Police access into the police station garage and entrances.
- Coordinated with the City of Bellevue regarding their permit review comments.

E340 Bel-Red

- Updated specifications with the most current Bid Readiness review input and comments.
- Completed design coordination with PSE for temporary and permanent design and task orders.
- Continued finalizing and coordinating design with Century Link, Comcast and XO.
- Continued to support the permit application process.

E360 SR 520 to Redmond Technology Center

 Continued Design Support for the E360 Design/Build Contract.

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RTC

Link Light Rail East Link Extension Final Design - S. Bellevue to RTC

Final Design Schedule

The table below shows the design submittal dates for each of the contract.

2/18/2014

8/14/2015

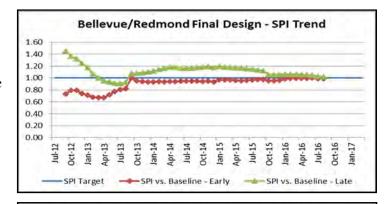
Contract	<u>60% Su</u>	60% Submittal		90% Submittal		100% Submittal		IFB Submittal	
<u>Packages</u>	Baseline*	Forecast/ Actual	Baseline*	Forecast/ Actual	Baseline*	Forecast/ Actual	Baseline*	Forecast/ Actual	
E320 So. Bellevue	12/6/2013	12/6/2013	9/19/2014	9/19/2014	4/3/2015	4/3/2015	1/25/2016	1/25/2016	
E330 Downtown Bellevue Tunnel	11/18/2013	11/18/2013	6/2/2014	6/2/2014	10/20/2014	10/20/2014	5/11/2015 6/15/2015 (2 nd IFB)	5/11/2015 6/15/2015 (2 nd IFB)	
E335 Downtown Bellevue to Spring District	12/20/2013	12/20/2013	10/19/2015	10/19/2015	3/8/2016	3/8/2016	6/13/2016 (9/6/2016 - 120 th Sta.)	7/15/2016 (9/6/2016 - 120 th Sta,)	
E340 Bel-Red	7/15/2013	7/15/2013	4/04/2014	7/21/2014	12/8/2014	12/8/2014	5/23/2016	4/11/2016	
	Draft RFP	Submittal	Final RFP	Submittal	*Baseline schedule			act packaging	
	Baseline*	Forecast/ Actual	Baseline*	Forecast/ Actual	and construction	n delivery methods.			
E360 SR-520 to	2/10/2014	2/12/2214	0/14/2015	8/14/2015	1				

8/14/2015

Final Design Schedule Performance

Excluding Other Direct Expenses (ODCs), Profits and DSDC, the Schedule Performance Index (SPI) reported this period is at 1.0 when measuring against the Early Schedule Baseline, and 1.03 when measuring against the Late Schedule Baseline.

2/18/2014



Final Design Cost Performance

Labor cost (for Phase 2 Final Design) to-date is \$84.4M, or 98.2% of the budget. Progress earned through the same period is approximately 99.5% or \$85.5M of earned value. This yields a cumulative Cost Performance Index (CPI) of 1.01, which indicates approximately on-budget cost efficiency of the current contract budget, including executed change orders. There are pending change orders that are being negotiated to address several design and specifications changes. However, Estimate At Completion (EAC) is within the approved budget by Sound Transit Board.



Performance	Period Period		Cumula- tive To Date	
Labor Amt. Invoiced	\$83,989,653	\$439,711	\$84,429,364	
% Spent	97.7%	0.5%	98.2%	
Earned Value	\$85,142,037	\$400,394	\$85,542,431	
% Complete	99.0%	0.5%	99.5%	
СРІ	1.01	0.91	1.01	

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Link Light Rail East Link Extension Final Design - Seattle to S. Bellevue





Map of International District Station to South Bellevue.

Final Design Scope

Final Design for the East Link Extension is delivered by three major design contracts: two for civil improvements and one for systems improvements. This Contract is for the civil and architectural design services from International District Station (IDS) to South Bellevue. The contract was awarded to Parsons Brinkerhoff, Inc. (PB).

The scope of the services includes detailed design of the corridor, preparation of comprehensive construction contract documents, permitting support, surveying, geotechnical investigation, right-of-way planning, third party coordination, systems coordination, cost estimating, scheduling, sustainability report, bid support, preliminary hazards analysis, and community outreach support.

The project in this segment has been aggregated into one Contract Package: E130 Rail Connection and Upgrades at IDS; seismic Retrofits of WSDOT Structures; and I-90 Civil/Architectural, which also includes the two at-grade stations, and Electrical/Mechanical Upgrades to existing Tunnels.

Final Design Key Activities

Design (Civil, Systems, Architecture, Art)

- Floating Bridge: Pricing set was delivered end of August.
- Fixed Structures: Pricing set was delivered end of August.
- DAP approved by FHWA, PDA has been started. PDA due mid-October 2016.
- Stations: Mercer Island and Judkins Park Stations pricing set was delivered end of August.

Third Party, Agreements, & Permits

- Sound Transit's building permit application with Mercer Island was determined to be complete and the Station is vested under the 2012 IBC.
- All 23 IRT issues have received FHWA concurrence and are closed.
- Shoreline Permits for Mercer Island and City of Seattle have been issued. Appeal periods have ended with no appeal.
- WSDOT's Construction Task Orders to support East Link construction were approved and executed.
- Sound Transit met with FHWA and WSDOT to confirm the process for environmental re-evaluation for project refinements within the I-90 corridor.

Construction & Construction Management

- The draft coordination plan between Sound Transit and King County Metro for the International District Station conversion is under review.
- Continued work on the floating bridge track attachments mock-up including installation of plinths with epoxy grout.

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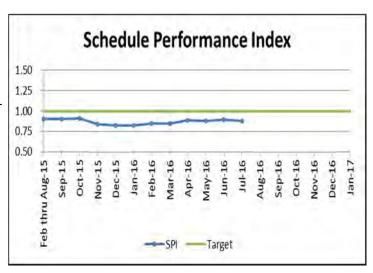
Link Light Rail East Link Extension Final Design - Seattle to S. Bellevue

Final Design Schedule

	60% Submittal		90% Submittal		100% Submittal	
Contract Packages	Baseline	Actual	Baseline	Forecast/ Actual	Baseline	Forecast/ Actual
E130 – Rail connection & IDS upgrades; Seismic retrofits; and I-90 Civil/Arch./Elect. & Mech. Upgrades	4/4/2014	7/11/2014	6/16/2016	7/1/2016	12/14/2016	8/15/2016

Final Design Schedule Performance

Excluding Other Direct Expenses (ODC's) and Profits, the Schedule Performance Index (SPI) reported this period is 0.88 when measuring against the Phase 2 Early Schedule Baseline, indicating the project continues to trend behind schedule by about a month. The below optimal schedule performance may be due to changes to design or additional analysis requested by third parties that the design team has to react to. As the consultant realigns staff to perform remaining design tasks, the SPI is anticipated to approach 1.00 in the near future.



Final Design Cost Performance

Reporting is for Phase 2 Direct Labor & Overhead performance only, measured against the Phase 2 Cost to Complete, which is \$20.7M. Current CPI is 0.95 indicating the project is trending slightly over budget. The over budget trend may be due to additional work efforts to complete the 90% plans, and efforts to produce the complete Pricing Set. It is anticipated the CPI will continue to trend near 1.00 for the duration of final design. Cost performance will be closely monitored to ensure project completion in a cost-effective and successful manner. Additional senior level meetings with the Designer are occurring to address commercial issues.



Performance	Previous	Current	Cumulative To
(DL+OH only)	Period	Period	Date
Amount Invoiced	\$17,974,009	\$1,044,093	\$19,018,102
% Spent	87.1%	5.1%	92.2%
Earned Value	\$17,418,573	\$684,811	\$18,083,5 3
% Complete	74.3%	3.3%	77.6%
СРІ	0.97	0.66	0.95

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Link Light Rail East Link Extension Final Design - Systems



Final Design Scope

Final Design for the East Link Extension is delivered by three major design contracts: two for civil improvements and one for systems improvements. This contract is for the systems design services for the entire alignment. The contract was awarded to LTK Engineering Services, Inc. The scope of the services include detailed design of the corridor, preparation of comprehensive construction contract documents, 3rd party coordination, cost estimating, scheduling, and bid support.

Final Design Key Activities

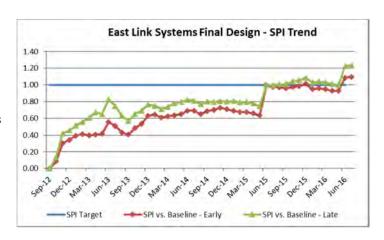
• Team is performing the QC and QA preparation for the 100% N830/E750 submittal.

Final Design Schedule

	60% Su	<u>bmittal</u>	90% Submittal		100% Submittal		IFB Submittal	
	Baseline	Actual	Baseline	Actual	Baseline	Forecast/ Actual	Baseline	Forecast/ Actual
E750– LRT Systems	10/24/2014	10/24/2014 Actual	2/1/2016	1/29/2016 Actual	9/6/2016	9/6/2016	3/1/2017	3/1/2017

Final Design Schedule Performance

The project is 88.3% complete resulting in an Earned Value of \$15.6M. The project has an early SPI of 0.98 and a late SPI of 1.07 which indicates that the contract is on schedule.



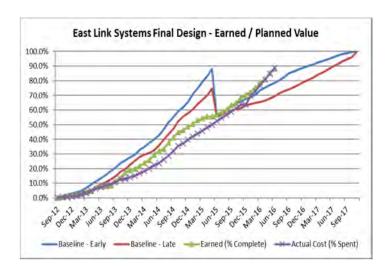
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Link Light Rail East Link Extension Final Design - Systems

Final Design Cost Performance

The project has spent approximately 87.4% of the budget resulting in CPI of 1.01. The current Estimate at Completion (EAC) is expected to be less than the current budget of \$17.9M.



Perfor- mance	Previous Period		
Labor Amt. Invoiced	\$15,652,441	\$596,648	\$16,249,089
% Spent	87.4%	3.3%	90.7%
Earned Value	\$15,558,684	\$568,674	\$16,127,358
% Complete	88.3%	3.2%	91.5%
CPI	1.0	1.0	1.0

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Link Light Rail East Link Extension - Construction



Major East Link Construction Contract Packages

Below are the major construction contract packages for the East Link Extension with a brief scope description and status of each.

R8A Stage 3A – Modification of HOV Ramp between I-90 **E335 Downtown Bellevue to Spring District** – Four light and Bellevue Way SE. [Design-bid-build] rail stations; aerial, at-grade and retained-cut guideway

Status: Completed.

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: Continued work on the testing/mock-up of track and plinths attachment on the floating bridge.

E160 Track Bridge System – Fabrication, delivery and install eight track bridges that will span over fixed structures and the floating bridge. [Furnish and Install]

Status: Prototype Design, Fabrication, and testing complete

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: In procurement, pending ST approval of contract.

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

Status: See following pages.

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: Began procurement of subcontract packages.

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

Status: Advertise 3rd QTR 2016

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

Status: NTP issued on July 13, 2016.

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: Pre-construction contract awarded and NTP issued. GC/CM reviewing design documents, and coordinating with designers.

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Link Light Rail East Link Extension - Construction

Contract E330 – Downtown Bellevue Tunnel

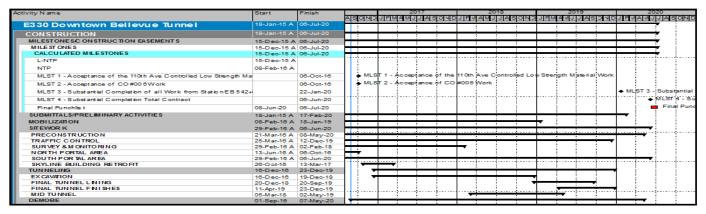
Current Progress

South Portal: The Contractor completed drilling of the sound wall shafts, and continued installation of the sound wall panels including installation of the sound absorbing material along the north and west side walls. The contractor also began installing lighting and painting throughout the sound wall. Soil nail wall equipment was mobilized on site in preparation to begin this scope of work early next month. The contractor continued to maintain TESC and Traffic Control measures throughout the site.

North Portal: The PSE vault was set and the remaining deep trench CLSM was poured and completed. Site restoration around the CLSM work continued. The road was paved and opened to the public, while the remaining sidewalk and driveway work is expected to be finished early next month. Installation of the monitoring equipment for ten (10) out of thirty-two (32) piezometers, inclinometers, and extensometers continued.

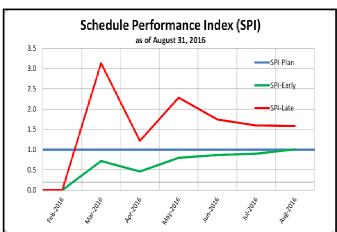
Schedule Summary

The critical path continues to follow the South Portal excavation through the tunnel excavation and the completion of the South Portal structure. The decision to use CLSM in lieu of the grouted pipe canopy at the North Portal allowed for a resequencing of work which removes the need for an interim interface with E335, providing some schedule relief. The contractor is currently modeling a change in excavation method for the southern 60% of the tunnel which, if approved, could realize up to three months of additional schedule savings.



Schedule Performance Index

This period, the SPI early (1.05) trends ahead of schedule and the SPI late (1.54) is holding its trend on completion ahead of the baselined schedule. The index indicates that the contractor continues trending in the positive direction and slightly ahead of the original base plan. This trend was supported by the fact that CLSM activities were completed ahead of schedule, and the fact that the South Portal activities, including the sound wall installation along with restoration of the hammerhead area were also completed approximately 3 weeks ahead of schedule. The soil nail excavation is expected to commence the first week of September, which is about a month ahead of the baseline schedule.



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Link Light Rail East Link Extension - Construction



Next Period's Activities

- Continue installing the construction site sound wall and gates, followed by lighting and painting around the south portal site.
- Complete installation of sidewalks and driveways around the Controlled Low-Strength Material (CLSM) Phase II work.
- Layout Piezometers, Inclinometers and Extensometers throughout the site. This activity could be delayed further if right of entries are not obtained in time.
- Begin excavation and Layout Piezometers, Inclinometers and Extensometers throughout the site.

Closely Monitored Issues

- Alternate SEM excavation sequence proposed by the contractor decision continues to be pending, awaiting additional modeling results.
- Obtaining Right-of-Entry agreements and temporary construction easements for properties along alignment.
- The TCE for the Skyline property does not match the requirements in the Contract Documents. The TCE requires the use of property owner approved MEPS subcontractors, night and weekend only work hours, and performing work on one floor at a time. CMC team currently negotiating with the contractor and Skyline building management on a solution.

Cost Summary

Present Financial Status	Amount
E330 Contractor- Guy F Atkinson Contraction, LLC.	
Original Contract Value	\$121,446,551
Change Order Value	\$933,055
Current Contract Value	\$122,379,606
Total Actual Cost (Incurred to date)	\$16,933,405
Financial Percent Complete:	13.8%
Physical Percent Complete:	13.8%
Authorized Contingency	\$12,244,655
Contingency Drawdown	\$933,055
Contingency Index	1.82



Sound wall panels closing off hammerhead area.

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Scope

Limits: South 200th Link Extension consists of 1.6-

mile extension of light rail from the SeaTac/Airport Station to South 200th

Street.

Alignment: The extension continues in an aerial config-

uration heading south of the existing SeaTac/Airport Station, east of Air Cargo Road across South 188th Street, and continuing south along the east side of 28th Avenue South to the elevated Angle Lake Station located at South 200th Street, A passenger pickup/drop-off area, bus transfer, plaza, and a minimum 700-space structured park and ride facility will be located at Angle Lake Station. Up to 400 additional spaces may be developed for interim parking while Angle Lake Station is the interim southern terminus of the Link system. Guideway/Station and Parking Garage/ Plaza are being delivered under a Design

Build contract.

Angle Lake Station is located at South 200th **Station:**

Street.

Systems: Signals, track electrification, and SCADA

communications

Budget: \$383.2 Million Service: September 2016

Phase: Construction



Map of S. 200th Link Extension.

Key Project Activities

- Design Build Guideway and Station (S440): Operator LRV training continues. L&I Inspection approved station elevators. Need Certificate of Occupancy (C of O) for Station. Need to reconcile various cost issues (existing crack street panels, 54-inch storm repairs, and fee-inlieu agr) with the City of SeaTac. City has offered to partially reimburse.
- Design Build Parking Garage (S445): Garage activity very close to completion. Elevator final materials were received and being installed; L&I scheduled inspection mid-September. Need C of O for Parking Garage.
- Military Road/South 200th (S446):) WSDOT awarded construction contract. Procurement of materials will take 4-6wks, construction to began August 3rd. Work to be managed by WSDOT and is not necessary to complete prior to the start of revenue service.
- Roadway Improvements (S447): Construction nearing completion; culvert activity and traffic signals.

Closely Monitored Issues

Completion of Training, O&M Manuals and Safety Certification.

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Project Cost Summary

The South 200th Link Extension cost is summarized into two cost tables. The current Adopted Budget column reflects the 2016 Adopted Budget approved by ST Board in December 2015. 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.

Cost Summary by Phase

WBS Phase Elements	Baseline Budget	Current Adopted Budget	Commit- ment to Date	Incurred to Date	Est. Final Cost (EFC)	Adopted Budget vs. EFC
Administration	\$16.1	\$16.8	\$14.2	\$14.4	\$16.8	\$0.0
Preliminary Engineering	\$5.9	\$5.7	\$5.7	\$5.7	\$5.7	\$0.0
Final Design	\$20.0	\$9.9	\$8.7	\$8.7	\$8.8	\$1.1
Construction Services	\$15.1	\$17.3	\$15.0	\$15.3	\$16.9	\$0.4
3rd Party Agreements	\$6.9	\$7.1	\$5.7	\$3.7	\$5.9	\$1.2
Construction	\$275.7	\$282.9	\$234.3	\$224.7	\$245.5	\$37.4
Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$43.5	\$43.5	\$42.9	\$38.0	\$43.5	\$0.0
Capital Total	\$383.2	\$383.2	\$326.5	\$310.5	\$343.2	\$40.0
Finance Cost	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Project Total	\$383.2	\$383.2	\$326.5	\$310.5	\$343.2	\$40.0

The overall project Estimated Final Cost (EFC) for this period reflects \$343M, a savings projection of \$40M. This period incurred cost increased by approximately \$3.1M, of this \$2.2M was for construction activities. S440 Guideway & Station Design Build contract was \$0.4M, S445 Parking Garage Design Build contract was \$1.0M, and S447 was \$0.6M. Construction services were \$0.5M and the remaining expenditures for \$0.3M were related to administrative charges.

The EFC grouped by SCC is also reflecting \$343M, a savings projection of \$40M. The work remaining can be achieved under the adopted budget.

Cost Summary by SCC

Project Elements by SCC	Baseline Budget	Current Adopted Budget	Commit- ment to Date	Incurred to Date	Est. Final Cost (EFC)	Adopted Budget vs. EFC
10 Guideway & Track Elements	\$144.8	\$133.0	\$98.6	\$99.2	\$108.0	\$25.0
20 Stations	\$46.4	\$51.3	\$39.4	\$39.7	\$40.3	\$11.0
30 Support Facilities: Yards, Shops	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
40 Sitework & Special Conditions	\$34.6	\$55.3	\$56.5	\$46.2	\$57.5	-\$2.2
50 Systems	\$30.8	\$19.9	\$19.4	\$19.1	\$19.4	\$0.5
Construction Subtotal (SCC 10-50)	\$256.6	\$259.6	\$213.8	\$204.2	\$225.3	\$34.3
60 Row, Land, Existing Improvements	\$43.5	\$43.5	\$42.9	\$38.0	\$43.5	\$0.0
70 Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
80 Professional Services	\$64.1	\$72.1	\$69.8	\$68.3	\$68.6	\$3.5
90 Unallocated Contingency	\$19.0	\$8.0	\$0.0	\$0.0	\$5.8	\$2.2
Project Total (SCC 10-90)	\$383.2	\$383.2	\$326.5	\$310.5	\$343.2	\$40.0
100 Finance Cost	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Project Total (SCC 10-90)	\$383.2	\$383.2	\$326.5	\$310.5	\$343.2	\$40.0

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Cost Contingency Management

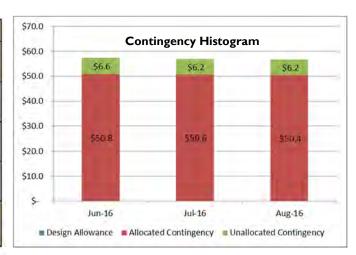
The overall project contingency balance as of this period is \$56.8M.

Design Allowance (DA): After baselining the project the design allowance of \$26.7M was added to the base estimate for the design build work package. There will be no future reporting of DA.

Allocated Contingency (AC): This period the AC shows a current balance of \$50.4M, a decrease of \$0.2M from the previous period. The reduction was primarily due to construction phase: change orders for \$440 (\$57K) and \$446 (\$108K).

Unallocated Contingency (UAC): 1: This period the UAC balance is \$6.2M, no change from previous period.

C	Base	line	Current		
Contingency Status	Amount	% of Total	Amount	% of Work Remaining	
Design Allowance	\$26.7	7.0%	\$ -	0.0%	
Allocated Contingency	\$29.8	8.0%	\$50.4	154.0%	
Unallocated Contingency	\$19.0	5.0%	\$ 6.2	18.9%	
Total	\$75.5	20.0%	\$56.6	172.9%	



Risk Management

The South 200th Link Extension Risk Management Plan (RMP) established a risk management and oversight process for assessing and monitoring risks to determine how risks have been reduced or mitigated. RMP captures scope growth, schedule delay, and cost growth risks that could arise during any phase of the project and potentially affect parts of the project scope. On a quarterly basis, the South 200th Link Extension team reviews and updates risk to reflect conditions. Below is a list of the top five major risk review items:

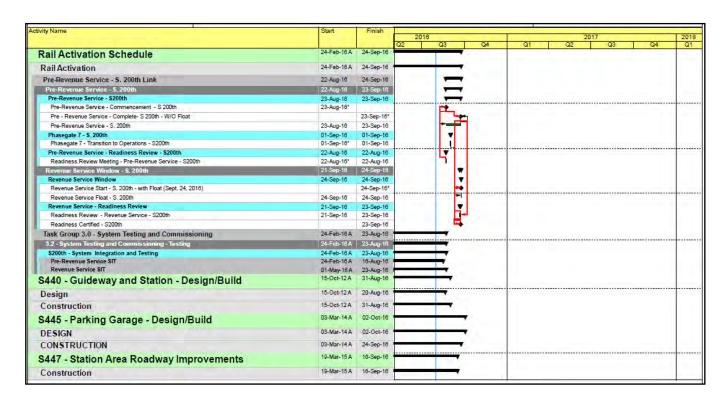
- CONSTRUCTION: Delays due to L&I inspection of elevators. (\$440/\$445).
- CONSTRUCTION: Radio frequency testing of façade may require additional system infrastructure (S445).
- CONSTRUCTION: Security communication interface for PET (S440/S447).
- CONSTRUCTION: Theft of equipment and security on project site. (S440).
- RAIL ACTIVATION: Rail Activation coordination needs improvement. (S440)

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Project Schedule

Revenue Service Opening has been announced for the weekend of September 24, 2016. Pre –Revenue Service commenced this period. L&I approved the final inspection of Angle Lake Station elevators. S445 DB Parking Garage Design/Builder continued working on interior and exterior finishes, mechanical and electrical finishes, elevator installation and testing/commissioning. The S.200th Master Schedule has been tied to the Rail Activation Schedule.



Critical Path Analysis

Revenue Service Opening has been announced for the weekend of September 24, 2016. S445 elevators are not expected to be completed by Revenue Service but a Plan B mitigation plan has been accepted by the City of Seatac and will assign all ADA parking to the plaza level until the elevators are complete.

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Schedule Performance Index

Revenue Service date is September 24, 2016. Schedule Performance Index (SPI) is no longer measurable as the project nears Revenue Service. Pre-revenue Service is ongoing. Punchlist work is now underway for the station and guideway. S445 elevator installation continues.

Cost Progress Analysis

Overall S. 200th physical % complete is at 99%. There will be no more update to the Cost Progress Analysis.

Right-of-Way

The South 200th Link Extension (S440) will extend from the SeaTac Airport Station along an elevated guideway to a station combined with a park and ride garage at South 200th Street. The South 200th Link Extension involved the acquisition of a range of property interests, including fee acquisitions, permanent and temporary easements, and both business and residential relocations. S447 covers road and utility improvements necessary as a result of the increased traffic that is anticipated with the new station. S447 initially covered 28 parcels of which 10 were previously certified for S440. Six (6) parcels that had ST acquisitions on S440 will also have acquisitions on S447. The right-of-way program is summarized below. There are no more updates for South 200th Link ROW activities.

Line Section	Total Parcels Certi- fied*	Offers Made	Signed Agree- ments	Admin. Settle- ments	Posses- sion and Use	Closings to date	Baseline Relocations Required	Relocations Completed
S440	64	59	0	0	0	56	8	8
S445	I	I	0	0	0	I	0	0
S447	27	16	0	0	0	16	0	0
Total	92	76	0	0	0	73	8	8

Note: *Seven of these parcels are in two different contracts and three parcels are in the S440 contract twice. These 10 parcels are counted twice as they have 2 different milestones.

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Construction Safety

Safety Statistics for the reporting period and year-to-date are summarized in the table below.

Data/Measure	August 2016	Year to Date	Project to Date
Recordable Injury/Illness Cases	0	4	17
Days Away From Work Cases	0	1	3
Total Days Away From Work	0	6	20
Restricted or Modified Work Cases	0	1	9
Total Days Restricted or Modified Work	0	51	471
First Aid Cases	0	3	36
Reported Near Mishaps	2	7	27
Average Number of Employees on Worksite	99	-	-
Total # of Hours (GC & Subs)	13,849	212,393	1,073,157
OSHA Incident Rates	Monthly Average	Year to Date	Project to Date
Recordable Injury Rate	0.00	3.77	3.17
DART Rate	0.00	1.88	2.24
Recordable National Average	3.60	3.60	3.60
DART National Average	2.00	2.00	2.00
Recordable WA State Average	7.20	7.20	7.20
DART WA State Average	3.30	3.30	3.30

Quality Assurance Activities

Activities

• S445 MRB disposition as Acceptable three NCRs

<u>Issues</u>

None to report.

Summary

Description	Aug 2016	Notes
No. of Audits Planned	0	None
No. of Audits Completed	0	None
Reports in Progress	I	S440 Contractor Systems Audit
No. of Audits Postponed	0	None

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Community Outreach

- Attended safety drill for the closure of S. 200th Street.
- Visited all businesses and residences adjacent to the Angle Lake Station to alert them of the emergency exercise at the station, scheduled paving work on S. 200th and provided an update on the street closure to 10 businesses.
- Place A-boards on driveways notifying businesses of street paving.
- Emailed project update regarding the re-opening of the S. 200th Street.

Sound Transit Board Actions

Board Actions	Description	Date
M2016-90	Increase the contingency for the construction services contract with Harbor Pacific Graham Joint Venture for the Angle Lake parking garage and plaza work within the South 200th Link Extension in the amount of \$400,000, for a total authorized contract amount not to	Aug 25

Contract Packages

The South 200th Link Extension consists of two major contract packages, both by Design Build methods, and two minor contracts. Below is a brief scope description of each package.

- **S440 Design Build Guideway and Station** This contract involves the design and construction of an elevated guideway (1.6 miles) and station, site work, civil /roadwork, and systems. See S440 contract page for detailed information on the following page.
- S445 Design Build Parking Garage and Plaza This contract involves the design and construction of a parking garage (700 space structure), passenger pick-up and drop-off lot, plaza area, retail space and surface parking. See S445 contract page for details.
- S446 Military Road & South 200th Street Improvements This contract package consists of construction of roadway and traffic signals work.
- **S447 Station Area Roadways & Surface Parking-** This contract package consists of station area roadway, surface parking, and non-motorized Improvements (sidewalks, traffic signals, pedestrian/bicycle connection, roadwork).

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Link Light Rail S. 200th Link Extension Design-Build

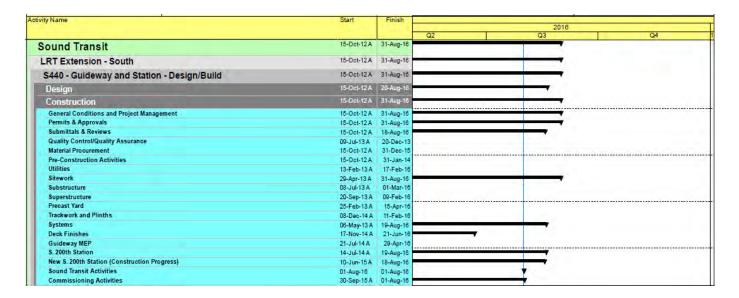
S440 Contract—Design -Build (Guideway and Station)

Current Progress

System Integration testing is completed and Pre-Revenue Service is underway.

Schedule/Critical Path

The schedule update has not been received for this update. Revenue Service has been announced as September 24th, 2016. Pre–Revenue Service is underway, punch list and closeout activities have commenced.



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Link Light Rail S. 200th Link Extension – Design-Build



Key Activities

Current Period

- Angle Lake Station/Plaza activities: Escalator and elevator L&I inspection passed; Fire alarm system passed inspection; BMS system punchlist work continues; continued Station and Platform punchlist work; City electrical permit items. TVMs trim packages continue. Continue phones testing (PET/ETELs); signage installed.
- Guideway activities: Complete guideway turnover to Operations; A few punchlist items remain; LRV running on guideway.
- Systems/testing/commissioning: Access control, ETEL, Audio/PA, CCTV, ETS transfer switch testing ongoing. Complete ultrasonic test cart.
- Continued TCE landscape restoration along 28th Ave S followed by turnover and permit closeout. Completed punchlist on Port of Seattle roadway. Installation of irrigation system completed.
- Safety certification continues.

Next Period

- Complete remaining OCS & Signal punch list work.
- Obtain Certificate of Completion for Angle Lake Station.
- Complete punchlist work for Station, Sitework.
- Complete commissioning activities.

Closely Monitored Issues

• Completion of Training and O&M Manuals.

Cost Summary

Present Financial Status	Amount	
S440 Contractor—PCL Civil Contractors, Inc.		
Original Contract Value	\$169,000,000	
Change Order Value	\$4,726,580	
Current Contract Value	\$173,726,580	
Total Actual Cost (Amount Billed)	\$171,784,611	
Financial Percent Complete:	99%	
Physical Percent Complete:	99%	
Authorized Contingency	\$13,520,000	
Contingency Drawdown	\$4,726,580	
Contingency Index*	2.8	



LRV onsite during driver's training week.

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Link Light Rail S. 200th Link Extension – Design-Build

S445 Contract—Design -Build Parking Garage

Current Progress

At S445, delays to elevator equipment procurement continue to impact the completion date for this project. Production will be watched closely. Overall progress of this contract: construction is 97% physical completion and against 97% duration complete. Liquidated Damages are now being applied to this contract.

Schedule/Critical Path

The August schedule update has been submitted. The critical path this period runs through elevator fabrication and elevator installation Milestone #2 Substantial Completion, is reporting 127 days of negative float with 2 days of owner controlled float intact. Delays persist in procurement of elevator and near critical stair installation. It is expected that schedule delays will continue regarding elevator fabrication and installation but critical egress stairs will be available for Revenue Service on September 24th, 2016. Plan B to mitigate for the lack of elevators has been accepted by the City of Seatac and all ADA parking will be on the plaza level until the elevator s are open for service.

ivity Name	Start	Finish			
		-	20 16 Q3	Q4	
S 200th Link Extension	04-Aug-14 A	14-Oct-16			
S445 - Parking Garage -Design/Build	04-Aug-14 A	14-Oct-16			
DE SIGN	04-Aug-14 A	01-Oct-16			
CONSTRUCTION	23-Feb-16 A	14-Oct-16			
CONSTRUCTION MILESTONES	22-Sep-16	07-Oct-16	▼		
SOUND TRANSIT CONTROLLED FLOAT	22-Sep-16	23-Sep-16	ı	J	
MS1 COMPLETE ALL SYSTEM AND UTILITY COMMISSIONING		23-Sep-16*	•	>	
MS2 C OF OAND SUBSTANTIAL COMPLETION		23-Sep-16*	· · · · · · · · · · · · · · · · · · ·	>	
PUN CH LIS T	26-Sep-16	07-Oct-16			
ARCHITECTURAL FINISHES	24-Feb-16 A	23-Sep-16	•	<i>r</i>	
DEMOŒ	10-Oct-16	14-Oct-16		₩	
ELECTRICAL	23-Feb-16 A	15-Sep-16			
MECHANICAL	22-Aug-16 A	08-Sep-16	 -		
CIVIL FINSHES	23-May- 16 A	16-Sep-16	•		
CHANGE OR DE RS	01-Jun-15 A	08-Sep-16	•		
PROVISIONAL SUM S	01-Sep-16	01-Sep-16	*		

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Link Light Rail S. 200th Link Extension – Design-Build



Key Activities

Current Period

- Continue coordination meetings with ST, RE team and other third party agencies.
- Completed installation of facade and plaza pavers.
- Continued PSE and TPSS screen fence and gate installation.
- Continued Stair 3 monitor concrete repairs.
- Continued installation of Stair 6 and Stair 5 precast threads and landings.
- Continued photovoltaic panel installation and electrical rough-in.
- Continued interior and exterior finishes of spaces/ rooms within the garage.
- Continued elevator installation activities in shaft and machine room.
- Continued elevator cab assembly and completed installation of entrance frames and doors.
- Continued CCTV and Access Control device installation and testing/commissioning.
- Next Period
- Complete bathroom mechanical and architectural finishes.
- Complete installation of retail storefront glazing.
- Complete Stair 1 concrete landing repairs.
- Complete installation of Stair 6 and Stair 5 precast threads and landings.
- Complete handrail installation at Stair 4.

- Complete PSE and TPSS screen fence and gate installation.
- Complete CCTV and Access Control device installation.
- Complete CES (Talk-a-phone) device installation.
- Continue exterior cladding of elevator shaft.
- Continue with elevator cab assembly.
- Continue installation of PV panels weatherproofing.
- Begin installation of security gates.
- Resume layout and installation of garage signage.
- Resume garage striping.
- Obtain C of O for Parking Garage.

Closely Monitored Issues

 All the elevator materials have been delivered and the Contractor is working on completing installation of all elevators.

Cost Summary

Present Financial Status	Amount	
S445 Contractor—Harbor Pacific/Graham		
Original Contract Value	\$29,978,000	
Change Order Value	\$2,054,061	
Current Contract Value	\$32,032,061	
Total Actual Cost (Amount Billed)	\$31,917,807	
Financial Percent Complete:	99%	
Physical Percent Complete:	99%	
Authorized Contingency	\$2,798,240	
Contingency Drawdown	\$2,054,061	
Contingency Index*	1.35	



Guard and handrail installation at the garage.

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Link Light Rail S. 200th Link Extension – Design-Build

S447 Contract - Station Area Roadway Improvements and Surface Parking

Current Progress

S447 Contractor continues to mitigate for issues. Milestones have been adjusted per change order but delays continued this period.

Schedule/Critical Path

The August schedule has not been submitted. Efforts to complete S. 200th work is underway.



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Link Light Rail S. 200th Link Extension – Design-Build



Key Activities

Current Period

- Continue weekly construction progress meetings.
- Continue coordination meetings with S440 and S445 Contractors.
- Continue retaining wall 2 work.
- Continue culvert installation at Des Moines Creek on \$200th
- Completed storm system at Des Moines Creek.
- Traffic signs installed on S200th.
- Grading and drainage swale along S200th.
- Complete asphalt and striping on S200th.
- Vehicle traffic resumes at Des Moines Creek crossing.

Next Period

- Complete roadwork, sidewalk, and wall work.
- Begin punchlist.

Closely Monitored Issues

 Unknown 30-inch storm bypass pipe was discovered near Creek; repairs needed to damaged pipe is delaying crosswalk signal installation. Working to resolve repair/responsibility with the City.

Cost Summary

Present Financial Status	Amount
S447 Contractor – Johansen Excavating, Inc	
Original Contract Value	\$8,426,400
Change Order Value	\$2,642,640
Current Contract Value	\$11,069,040
Total Actual Cost (Amount Billed)	\$10,871,807
Financial Percent Complete:	98%
Physical Percent Complete:	98%
Authorized Contingency	\$2,642,640
Contingency Drawdown	\$2,642,640
Contingency Index*	1



Installing traffic signals at S. 200th.

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Link Light Rail Federal Way Link Extension



Scope

The Federal Way Link Extension includes alternatives analysis, environmental work and conceptual engineering for an extension of Link Light Rail from S. 200th St. in SeaTac to the Federal Way Transit Center. Preliminary engineering will be performed for the segment from S. 200th St. to Kent/Des Moines (in the vicinity of Highline College) and to the Federal Way Transit Center.

Key Project Activities/Issues

- Completed Phase 1 work (Alternatives Analysis) in Sept. 2013.
- DEIS alternatives identified by the Board in Sept. 2013.
- Executed Phase 2 contract amendment with HDR for Conceptual Engineering and Draft EIS work in October 2013.
- Published Draft EIS on April 2015. Comment period ended May 26, 2015.
- Board identified a Preferred Alternative and approved Phase 3 contract amendment on July 23, 2015.
- Executed Phase 3 contract amendment with HDR for Final EIS and Preliminary Engineering on July 24, 2015.
- ST Board approved contract amendment in February 2016 to extend Preliminary Engineering from Kent/ Des Moines to the Federal Way Transit Center.



Map of Federal Way Link Extension.

Project Cost Summary

In July 2015, the Sound Transit Board identified the preferred alternative and station locations and approved the Federal Way Link Extension Phase 3 (PE and Final EIS) contract amendment.

The Federal Way Link Extension is currently funded through the completion of preliminary engineering (PE) and environmental documentation, with the exception of the segment from Kent/Des Moines to Federal Way, which is only funded through environmental documentation. Table (below) figures in millions.

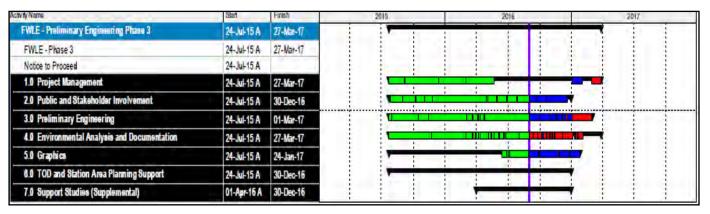
Phase	Adopted Budget	Commitment to Date			Estimated Final Cost (EFC)	Budget Versus EFC
Administration	\$9.4	\$4.6	\$4.6	\$4.8	\$9.4	\$0.0
Preliminary Engineering	\$33.3	\$30.7	\$25.8	\$2.7	\$33.3	\$0.0
Third Parties	\$2.4	\$1.1	\$0.4	\$1.4	\$2.4	\$0.0
Right of Way	\$3.6	\$1.0	\$0.7	\$2.6	\$3.6	\$0.0
Total	\$48.8	\$37.4	\$31.5	\$11.4	\$48.8	\$0.0

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Link Light Rail Federal Way Link Extension

Project Schedule

The Final EIS and Preliminary Engineering was extended to 1st QTR 2017.



Sound Transit Board Actions

Board motions and resolutions directly related to Federal Way Link Extension is summarized in the table below.

Motion Number	Description	Date
	None to report.	

Community Outreach

- Attended neighborhood briefing and 10 people attended.
- Met with property owners to discuss potential effects on parcels and five people attended.

Environmental

• None to report.

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Link Light Rail Federal Way Link Extension—Preliminary Engineering



Phase 3 Preliminary Engineering (PE)

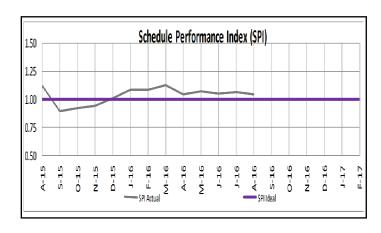
In July 2015, Sound Transit executed an amendment to the professional services agreement with HDR Engineering, Inc. for Phase 3 professional services, including completion of a Final Environmental Impact Statement (FEIS) using the preferred alternative and the other alternatives in the Draft EIS, preliminary 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.

Phase 3 Key Activities

- Continued engineering activities including preparation of Pre-Final PE submittal and associated third party design coordination.
- Continued development of the Final EIS. Current activities include review of administrative drafts by FTA.
- Continued coordination with potentially affected property owners including neighborhood briefings and one-on-one meetings.
- Continued discussion of term sheets with affected jurisdictions to address code/permitting requirements and design review process for next phase of project development.

Phase 3 Schedule Performance

The cumulative Schedule Performance Index (SPI) is 1.04 through August 2016, indicating the overall amount of work accomplished is more than planned. Review of the consultants draft Phase 3 schedule indicates that completion of the FEIS document is currently on the critical path.

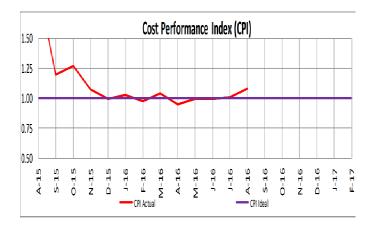


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Link Light Rail Federal Way Link Extension—Preliminary Engineering

Phase 3 Cost Performance

\$25.2M of the total contract amount, approximately 84%, has been spent through August 2016. Phase 3 expenditures totaled \$13.4M, approximately 73% of the Phase 3 contract total. The Phase 3 percent complete reported at 73%, with an earned value of \$13.4M. The cumulative Cost Performance Index (CPI) is 1.08, indicating costs are on track with work accomplished. Based on the current trend, the Phase 3 cost is expected to be on budget.



Phase 3 Performance	Previous Period	Current Period	Cumulative To Date		
Amount Invoiced	\$12,485,758	\$881,821	\$13,367,580		
% Spent	68%	5%	73%		
Earned Value	\$12,576,216	\$852,336	\$13,428,552		
% Complete	68%	5%	73%		
SPI	1.06	0.81	1.04		
СРІ	1.01	0.97	1.08		

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Link Light Rail Tacoma Link Extension



Scope

Limits: City of Tacoma

Alignment: The 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 atgrade along Stadium Way, North 1st. Street, Division Avenue, and Martin

Luther King Jr. Way.

Stations: Relocated Theater District Station, Sta-

dium Way & 4th St, Stadium District, MLK Jr. Way and Division, MLK Jr. Way and 6TH Ave, MLK Jr. Way and S. 11th St., and MLK Jr. Way and S.

19th St.

Systems: Expansion of the Operations and Mainte-

nance Facility; The at-grade alignment will include additional signals, OCS, traction power, and communications infra-

structure.

Budget: \$33.02 Million Phase Gate 4 budget; ex-

cludes Construction (Year of Expenditure

Dollars)

Phase: Final Design

Const. Starts: 2018



Map of Tacoma Link Extension.

Key Project Activities

Final Design

• Executed the contract for the Final Design Consultant.

Pre-Construction Services

• Continue procuring CMC contract in 3rd QTR 2016.

Third Parties

• Advancing formal agreements with City of Tacoma and utility providers.

Right of Way

 Continued early right of way property acquisition activities as they relate to the expansion of the Operations and Maintenance.

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Link Light Rail Tacoma Link Extension

Project Cost Summary

The Tacoma Link 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

WBS Phase Elements	Current Adopted Budget	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Adopted Budget vs. EFC
Administration	\$10.6	\$2.5	\$2.5	\$10.6	\$0.0
Preliminary Engineering	\$5.9	\$5.6	\$5.6	\$5.9	\$0.0
Final Design	\$10.8	\$7.6	\$0.0	\$10.8	\$0.0
Construction Services	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
3rd Party Agreements	\$0.5	\$0.0	\$0.0	\$0.5	\$0.0
Construction	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Vehicles	\$2.0	\$2.0	\$0.2	\$2.0	\$0.0
ROW	\$3.2	\$0.2	\$0.1	\$3.2	\$0.0
Total	\$33.0	\$17.9	\$8.4	\$33.0	(\$0.0)

Cost Summary by SCC

Project Elements by SCC	Current Adopted Budget	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Adopted Budget 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	\$3.2	\$0.2	\$0.1	\$3.2	\$0.0
70 Vehicles (non-revenue)	\$2.0	\$2.0	\$0.2	\$2.0	\$0.0
80 Professional Services	\$27.8	\$15.7	\$8.1	\$27.8	\$0.0
90 Unallocated Contingency	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Total (10 - 90)	\$33.0	\$17.9	\$8.4	\$33.0	(\$0.0)

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Link Light Rail Tacoma Link Extension

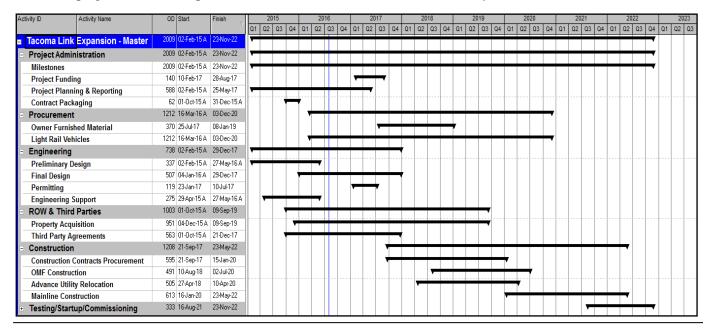


Risk Management

The Tacoma Link Risk and Contingency Management Plan (RCMP) will be completed in 2nd QTR 2017. This 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 Tacoma Link Quarterly Risk Review Meeting is targeted for December 2016.

Project Schedule

NTP for the Final Design is scheduled for the end of August 2016. ST is also working to finalize the Work Order with the City of Tacoma for support of the project as well as amending the Right of Use Agreement. The geotechnical was received and is now being reviewed. ROW is currently working on the acquisition of the property for the new OMF, and developing a schedule for a permanent easement for the TPSS at the MLK Way Police Station.



Sound Transit Board Actions

Board motions and resolutions directly related to Tacoma Link Extension is summarized in the table below.

Motion Number	Description	Date
	None to report.	

Community Outreach

 Participated in Hilltop Street Festival and 60 people visited ST booth.

Environmental

• None to report.

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Link Light Rail Tacoma Link Extension - Preliminary Engineering

Phase 3 Preliminary Engineering

In February 2015 Sound Transit executed an amendment to the professional services agreement with CH2M Hill, Inc. for Phase 3 professional services, including preliminary engineering and environmental work.

Phase 3 Key Activities

- Updated design criteria and various preliminary engineering technical memos.
- Continued station refinement public outreach efforts.
- Continued contract closeout documentation and final invoice prep.

Phase 3 Schedule Performance

The cumulative Schedule Performance Index (SPI) for the Phase 3 contract is 1.00 through August, as the project was completed in August. Consistent with the original Phase 3 schedule, planned values for the project ended in September. A change order was executed to the contract and a revised cash flow was established with this months reporting. The Phase 3 work is now finished (100% complete overall).



Phase 3 Cost Performance

\$5.35 M of the total contract amount, approximately 99%, has been spent through August. Phase 3 contract expenditures through August totaled \$2.5 M, approximately 98% of the Phase 3 contract total. The Phase 3 contract percent complete reported at the end of August is 100%, with an earned value of \$2.56 M. The cumulative Cost Performance Index (CPI) through August is 1.03; indicating costs saving on the project. The monthly CPI for August was significantly high at 10.27, driven by expenditures to complete work related to Station Platform Refinements and DAHP coordination.



Phase 3 Performance	Previous period	Current P eriod	Cumulative To-Date
Amount In- voiced	\$2,468,546	\$10,897	\$2,479,443
% Spent	98%	1%	99%
Earned Value	\$2,445,754	\$111,455	\$2,557,719
% Complete	95%	5%	100%
SPI	0.96	6.44	1.00
СРІ	0.99	10.27	1.03

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Link Light Rail Link Operations and Maintenance Facility: East



Project Summary

Scope: The Link Operations and Maintenance Facili-

ty: East (OMFE) 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.

Budget: \$449 Million (Baselined July 2016) **Schedule**: Project completion December 2020

Phase: Proceed to Construction



Illustration of OMFE site

Key Activities

- Conducted weekly technical meetings by the Consultant team to develop the Project Requirements.
- Consultant continued work on procurement RFP documents (final version). Reviews with ST, Bellevue and King County continues.
- Selected three top-ranked Design-Build teams to receive the RFP.
- Environmental permit work underway for applications.
- Meetings with Bellevue regarding TOD continue Implementation Agreement approved by ST Board and Bellevue Council.

Closely Monitored Issues

• Property acquisition activities continue, however there are challenges with initial appraisals, affecting schedule slippage and potentially cause availability of some properties into 2018.

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Link Light Rail Link Operations and Maintenance Facility: East

Project Cost Summary

In July 2016, the Sound Transit Board authorized the project to be baselined (Gate 5) and advance to construction (Gate 6). This increased the Adopted Capital Budget for the OMFE from \$133.6M to \$449.2M. The OMFE 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.

Cost Summary by Phase

WBS Phase Elements	Baseline Budget	Current Adopted Budget	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Adopted Budget vs. EFC
Administration	\$17.6	\$17.6	\$1.9	\$1.9	\$17.6	\$0.0
Preliminary Engineering	\$9.5	\$9.5	\$9.0	\$8.2	\$9.5	\$0.0
Final Design	\$0.4	\$0.4	\$0.0	\$0.0	\$0.4	\$0.0
Construction Services	\$19.3	\$19.3	\$0.0	\$0.0	\$19.3	\$0.0
3rd Party Agreements	\$3.1	\$3.1	\$0.0	\$0.0	\$3.1	\$0.0
Construction	\$264.8	\$264.8	\$0.0	\$0.0	\$264.8	\$0.0
ROW	\$134.5	\$134.5	\$24.7	\$23.4	\$134.5	\$0.0
Total	\$449.2	\$449.2	\$35.5	\$33.5	\$449.2	\$0.0

The Estimated Final Cost (EFC) for the project as of this reporting period is \$449.2M, which is equal to the current project budget. This period, approximately \$0.4M was incurred, of which \$0.3M was for PE services. The remaining expenditures were for right-of-way, staff and other direct charges.

The Estimated Final Cost (EFC) reflects the current adopted budget values due to project baselined this period. ROW and Professional Services categories are active at this stage of the project.

Cost Summary by SCC

Project Elements by Phase	I Adopted I ment to I		Incurred to Date	Estimated Final Cost (EFC)	Adopted Budget vs. EFC	
10 Guideway & Track Elements	\$37.9	\$37.9	\$0.0	\$0.0	\$37.9	\$0.0
20 Stations	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
30 Support Facilities: Yards, Shops	\$104.8	\$104.8	\$0.0	\$0.0	\$104.8	\$0.0
40 Sitework & Special Conditions	\$43.6	\$43.6	\$0.0	\$0.0	\$43.6	\$0.0
50 Systems	\$43.0	\$43.0	\$0.0	\$0.0	\$43.0	\$0.0
Construction Subtotal (SCC 10-50)	\$229.3	\$229.3	\$0.0	\$0.0	\$229.3	\$0.0
60 Row, Land, Improvements	\$134.5	\$134.5	\$24.7	\$23.4	\$134.5	\$0.0
70 Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
80 Professional Services	\$71.6	\$71.6	\$10.9	\$10.1	\$71.6	\$0.0
90 Unallocated Contingency	\$13.8	\$13.8	\$0.0	\$0.0	\$13.8	\$0.0
Project Total (SCC 10-90)	\$449.2	\$449.2	\$35.5	\$33.5	\$449.2	\$0.0

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Link Light Rail Link Operations and Maintenance Facility: East



Cost Contingency Management

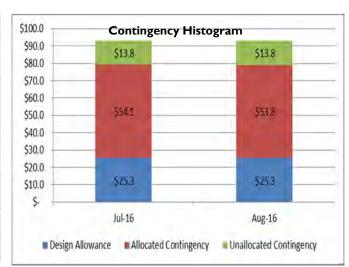
Compared to the baseline amount of \$93.2M, the Total Contingency is \$92.9M. During this period, a net decrease of \$0.3M in overall project contingency occurred. Detailed information is provided below.

Design Allowance (DA) – The baseline DA of \$25.3M was established this period.

Allocated Contingency (AC) –Compared to the baseline amount of \$54.1M, AC has reduced to \$53.8M, a reduction of \$0.3M due to the ROW and Admin phases.

Unallocated Contingency (UAC) - The baseline UAC amount of \$13.8M reflects no changes this period.

Contingonay		Bas	eline	Current					
Contingency Status	Amount		% of Total	Ar	nount	% of Work Remaining			
Design Allowance	\$	25.3	5.6%	\$	25.3	6.1%			
Allocated Contingency	\$	54.1	12.0%	\$	53.8	12.9%			
Unallocated Contingency	\$	13.8	3.1%	\$	13.8	3.3%			
Total	\$	93.2	20.7%	\$	92.9	22.3%			



Risk Management

The Project has a Risk Register and is actively managing risks. The following are the top five risks:

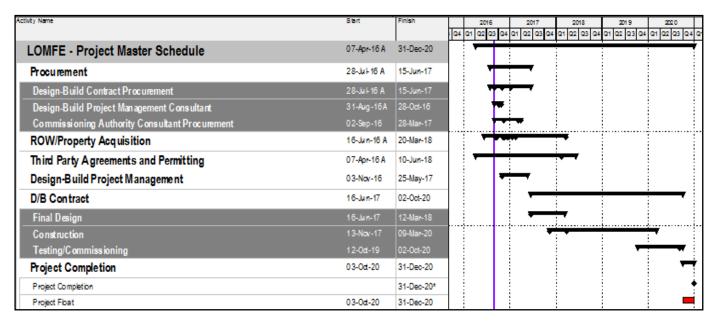
- Volatility in property values around the Bel-Red area.
- City of Bellevue requesting additional site improvements not included in the agreements.
- Authorities Having Jurisdiction not fully communicating all of their requirements to Sound Transit.
- Changes in storm water facility estimate assumptions by DB contractor.
- Designing and procuring special track-work.

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Link Light Rail Link Operations and Maintenance Facility: East

Project Schedule

The project schedule is presented below. The OMFE project was baselined in July. The RFP for the Design-Build contractor is expected to be issued in early September. Property acquisitions are on schedule to be completed in late 2017 or early 2018, in time for construction to start as planned.



Critical Path Analysis

The project critical path this period is through real estate acquisition. The current conceptual construction plan shows a critical path through the foundation design and subsequently the construction of the LRV storage yard.

ity Name	Start	Finish		201		2017	2018	2019	2020
			Q4	Q1 Q2	23 (24	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4	Q1 Q2 Q3 Q4 Q
LOMFE - Project Master Schedule	16-Jun-16 A	31-Dec-20			1		:		
ROW/Property Acquisition	16-Jun-16 A	20-Mar-18			1				
All Properties Acquired		20-Mar-18			1		+		
Bellevue Trade Center LLC - Parcel ID 28250 5930 7	16-Jun-16 A	20-Mar-18			-		-		
D/B Contract	21-Mar-18	02-Oct-20			1				
Construction	21-Mar-18	11-Oct-19			1	:	:		
Full Parcel Acess for All Construction	21-Mar-18				1		*		
Mobilization and Sitework	21-Mar-18	18-Jul-18			1				
Demolition/Excavation and Grading - Remainder of Sile	21-Mar-18	18-Jul-18			1		_		
Site Utilities/Underground Comm/Signal Wiring - Remainder of Site	21-Mar-18	18-Jul-18					_		
LRV Storage (incl. Traction Power)	19-Jul-18	11-Oct-19							
Testing/C ommiss ioning	12-0d-19	02-Oct-20			1			_	
Project Completion	03-Od-20	31-Dec-20							
Project Float	03-Od-20	31-Dec-20							-
Project Completion		31-Dec-20*				:	:		†

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Link Light Rail Link Operations and Maintenance Facility: East



Sound Transit Board Actions

Board motions and resolutions directly related to OMFE is summarized in the table below.

Motion Number	Description	Date
	None to report.	

Environmental

• None to report.

Community Outreach

• None to report.

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Link Light Rail Link Operations and Maintenance Facility: East

Phase 2 Preliminary Engineering and FEIS

Sound Transit executed a professional services agreement with Huitt-Zollars, Inc. for civil engineering and architectural design services and issued NTP for Phase 2, Preliminary Engineering and FEIS for the Link Operations and Maintenance Facility: East (OMFE) in September 2014.

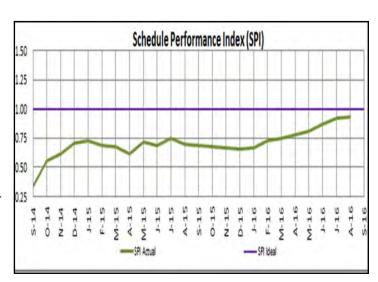
Phase 2 Key Activities

- TOD market study and development essentially complete.
- Consultant continued work on the procurement documents under final ST review
- Additional geotechnical borings completed in the field. Lab work analysis continues.
- Drafting agreement with King County regarding mainline sewer replacement continues
- Met with PSE regarding service substation arrangement and PSE reconfiguration timing.
- Project costs have been updated through Memo building upon the July 2015 PE estimate.
- Program documents being developed for all OMFE spaces and equipment working closely with Operations and Facilities.
- ST facilities staff reviewing program requirements.
- ST Board adopted baseline scope, schedule and budget in July 2016.

Phase 2 Schedule Performance

The cumulative Schedule Performance Index (SPI) trends at 0.93 through August 2016, which means that cumulative work accomplished is less than work planned.

Change Order 008 incorporated Phase 2A of the project on February 2016. The remaining Phase 2 scope has been re-negotiated to reflect the recent Design Build Project Delivery decision. The consultant has been directed to focus efforts on delivering Design Build bridging documents to help inform the procurement of the final design build team starting February 2016 as Phase 2A.



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Link Light Rail Link Operations and Maintenance Facility: East



Phase 2 Cost Performance

\$4.8M of the total Phase 2 contract amount, approximately 90%, was spent through August 2016. The Phase 2 percent complete is 93%, with an earned value of \$4.9M. The cumulative Cost Performance Index (CPI) is 1.04, meaning that expenditures are less than the earned value.



Phase 2 Performance	Previous Period	Current Period	Cumulative To Date
Amount Invoiced	\$4,519,536	\$260,397	\$4,779,933
% Spent	85%	5%	90%
Earned Value	\$4,893,693	\$56,124	\$4,949,817
% Complete	92%	1%	93%
SPI	0.92	0.00	0.93
CPI	1.06	0.22	1.04

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Link Light Rail ST2 LRV Fleet Expansion



Project Summary

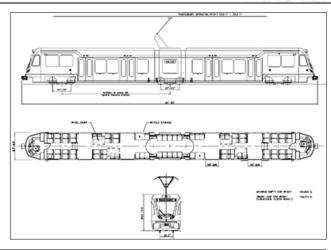
Scope: Design, manufacturing, assembly, inspection, test-

ing and delivery of 122 low floor light rail vehicles for service requirements of Northgate, East Link

and Lynnwood Link Extensions.

Budget: \$733 Million (Baseline September 2015)

Schedule: Project completion 3rd QTR 2024



Key Activities

• Notice of Intent to Award contract was issued to Siemens at the end of July. The Buy America audit was completed on their proposal; project is on schedule to meet target NTP date of October 10, 2016.

Project Cost Summary

The ST2 LRV Fleet Expansion project cost is summarized below by two cost categorizations. In the first table, the cost is summarized in accordance with Sound Transit's Work Breakdown Structure (WBS) at the Phase Level. The second table summarizes the project in accordance with the FTA's Standard Cost Category (SCC) format. As of this period, approximately \$1.6M has been expended. Both tables below are shown in millions. TIFIA is financing 28% of this project. To date, approximately \$1.6M has been expended; Buy America Audit was performed, and preparation of the conformed specifications.

Cost Summary by Phase

Project Phase	Baseline Budget	Current Adopted Budget	Commit- ment to Date	Incurred to Date	Estimated Final Cost (EFC)	Adopted Budget Vs. EFC
Administration	\$4.7	\$4.7	\$0.1	\$0.1	\$4.7	\$0.0
Construction Services	\$14.1	\$14.1	\$4.8	\$1.6	\$14.1	\$0.0
Vehicles	\$714.2	\$714.2	\$0.0	\$0.0	\$714.2	\$0.0
Total	\$733.0	\$733.0	\$4.9	\$1.7	\$733.0	\$0.0

Cost Summary by SCC

SCC Element	Baseline Budget	Current Adopted Budget	Commit- ment	Incurred to Date	Estimated Final Cost	Adopted Budget
Construction Subtotal (SCC 10-50)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
60 ROW, Land, Existing Improvements	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
70 Vehicles	\$696.7	\$696.7	\$4.8	\$1.6	\$696.7	\$0.0
80 Professional Services	\$4.5	\$4.5	\$0.1	\$0.1	\$4.5	\$0.0
90 Contingency	\$31.7	\$31.7	\$0.0	\$0.0	\$31.7	\$0.0
Capital Total (SCC 10-90)	\$733.0	\$733.0	\$4.9	\$1.7	\$733.0	\$0.0

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Link Light Rail ST2 LRV Fleet Expansion

Cost Contingency Management

Contingency Status

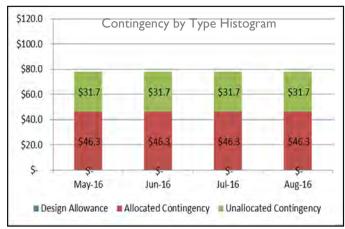
The project's baseline budget, which was approved by the Sound Transit Board in September 2015 and includes a total of \$78.0M of Total Contingency. Overall contingency is currently 10.7% of remaining work.

Design Allowance - This project contains \$0 design allowance.

Allocated Contingency – The project baseline contains \$46.3M of allocated contingency. There was no change in allocated contingency this period.

Unallocated Contingency – The project baseline contains \$31.7M of unallocated contingency. There was no change in unallocated contingency this period.

Contingency Status		Base	line		Current				
	Amount		%of Total	Ar	nount	%of Work Remaining			
Design Allowance	s	Total	0.0%	\$	- 3	0.0%			
Allocated Contingency	s	46.3	6.4%	s	46.3	6.3%			
Unallocated Contingency	s	31.7	4.3%	s	31.7	4.3%			
Total	\$	78.0	10.7%	\$	78.0	10.7%			



Risk Management

The top risks are as follows:

- Sub-Supplier Performance Issues
- Commissioning Requirements
- Availabilities of Spare Parts

Project Schedule

The ST2 LRV Expansion project schedule is shown below.

Activity Name	Start	Finish	5	20	16	2017	2018	2019	2020	2021	2022	2023
			2 24	0 02	Q Q4	Q Q Q3	2 2 22 2 24	Q Q Q3 Q	Q1 Q Q Q4	0 02 0 04	Q Q Q3 Q	0 02 0 04
ST2 LRV Procurement Schedule	24-Feb-15A	15-Nov-23	Г		Т							
Light Rail Vehicle Procurement	24-Feb-15A	15-Nov-23			T		: 	:	:	:		$\overline{}$
LRV Vendor Procurement	24-Feb-15A	10-Oct-16		:	7							
RFP Preparation	24-Feb-15A	22-Sep-15 A	7		ı	:		:	:			
Baseline Process	25-Aug-15A	24-Sep-15 A	₩.			<u>.</u>						1
Advertisement through Award	06-Nov-15A	10-Oct-16	₹	:								
LRV Engineering and Manufacture	10-0 d -16	31-Mar-19			-	:	:	7				
LRV Delivery Schedule	01-Apr-19	15-Nov-23						•	:			

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Project Staffing – Link Light Rail Program – July 2016

Staffing variance reported in the following section is relative to the April 2016 Agency Staffing Plan (Version 6). During this period, the following positions were filled to support the Link capital program:

Position	Project Assignment	Planned Hire Date		
Deputy Director	Lynnwood Link Extension	January 2016*		
Sr. Structural Engineer	Link	2016 Attrition*		
Sr. Scheduling Engineer	East Link Extension	2016 Attrition		
Deputy Executive Directive	Design and Engineering	2016 Attrition		
Principal Construction Manager	Sounder Program	2016 Attrition		
Property Management Specialist	Real Property	2016 Attrition		
Principal Construction Manager	Lynnwood Link Extension	2016 Reassignment		
Principal Construction Manager	Northgate Link Extension	June 2016		
Sr. Peal Property Agent	East Link Extension	June 2016		
Construction Manager	East Link Extension	June 2016		

^{*}Attrition resulting from internal promotion.

Recruiting is on-going for the following design, engineering and construction management staff.

Position	Project Assignment	Planned Hire Date
Construction Manager	Systems	April 2014
Architect	East Link Extension	2014 Attrition
Sr. Project Manager	O&M Facility: East	2015 Reclass.
Sr. Project Manager	Northgate Link Extension	2016 Attrition*
Deputy Director	Civil & Structural Engineering	2016 Attrition*
Sr. Civil Engineer	East Link Extension	2016 Attrition*
Project Control Specialist	East Link Extension	2016 Attrition*
Community Outreach Specialist	East Link Extension	2016 Attrition*
Community Outreach Specialist	South Corridor	2016 Attrition
Document Control Coordinator	Federal Way Link Extension	2016 Attrition
Sr. Design Technology Specialist	Civil and Structural Engineering	2016 Attrition
Deputy Director	Systems Engin. and Integration	2016 Attrition
Sr. Systems Engineer	Traction Power	2016 Attrition
Sr. Systems Engineer	LRV Procurement and Testing	2016 Attrition
Director	Architecture and Art	2016 Attrition
Civil Engineer	Right-of-Way	2016 Attrition
Deputy Director	Real Property	2016 Attrition
Sr. Real Property Agent	Appraisals	2016 Attrition
Construction Manager	Federal Way Link Extension	March 2016
Assistant Permit Administrator	Fed. Way/Lynnwood Link Extensions	April 2016
Deputy Executive Director	Project Management	April 2016

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Project Staffing - Link Light Rail Program continued

There were 521.7 (93% of plan) consultant and internal staff full time equivalents (FTE) participating in the on-going planning, design and construction of Link light rail extensions in July. Staffing for the each of the Link Extensions with the exception of the Lynnwood and the Tacoma Link Extensions was at or above plan.

During plan development it was assumed that final design for Lynnwood would begin in 4Q 2015 and for the Tacoma Link Extension, 1Q 2016; final design the Lynnwood Link Extension began in May. The design of the Tacoma Link Extension will begin in 3Q 2016. Staffing variance to plan for the month and year to date summary by project follows.

			uly 2016	-Staffing Pla	an Variance	e Summary	/					
		Consulta	nt Staff			Sound Tra	ansit Staff		Total (YTD)			
	F	TE	Var	iance	FI	E	Var	riance	F	E	Va	riance
Project	Planned	Actual	FTE	% of Plan	Planned	Actual	FTE	% of Plan	Planned	Actual	FTE	% of Plan
University Link Extension	0.0	12.5	12.5		20.3	14.1	-6.2	69%	20.3	59.9	39.6	295%
Northgate Link Extension	73.9	93.3	19.4	126%	47.7	30.7	-17.0	64%	121.6	131.6	10.0	108%
South 200th Extension	9.4	25.0	15.6	266%	17.5	23.1	5.7	132%	26.8	44.7	17.9	167%
East Link Eextension	132.4	141.7	9.3	107%	79.7	67.5	-12.2	85%	212.1	270.2	58.1	127%
Lynnwood Link Extension	115.0	76.4	-38.6	66%	40.3	31.5	-8.8	78%	155.3	62.6	-92.7	40%
Tacoma Link Expansion	11.0	1.8	-9.2	16%	13.0	4.2	-8,8	32%	24.0	10.8	-13.3	45%
Total	341.7	350.7	9.0	103%	218.5	171.1	-47.4	78%	560.1	579,7	19.6	103%

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Link Light Rail Staffing Report

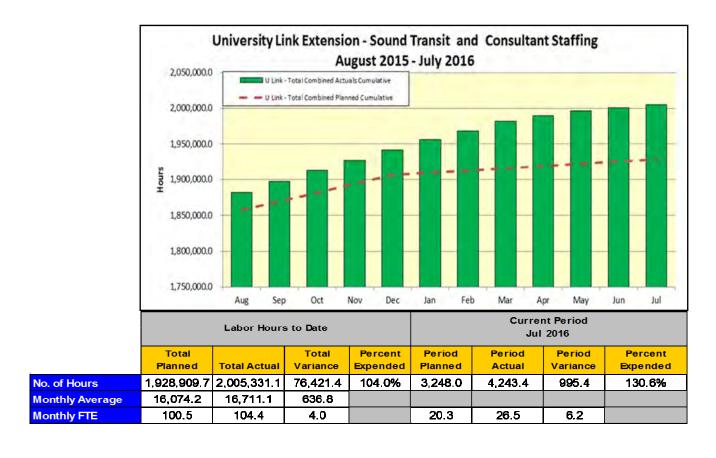


University Link Extension Staffing

Total Internal and External Staffing - University Link Extension

With the successful opening of the University Link Extension, beginning this reporting period (July 2016) staff variance reporting for the University Link Extension will be limited to presentation of total project staffing. Internal and Consultant staffing will no longer be reported on separately.

There were 26.5 FTE assigned to the University Link Extension in July including 12.5 consultant and 14.1 internal FTE. As was expected with the wrapping up of operational work arounds, staffing for the month decreased 10% (3.1 FTE) from June. Consultant staffing was well ahead of plan as the 2016 Staffing Plan assumed that all construction and system testing would be completed in late 2015 and did not account for systems testing performed in 2016 and on-going resolution of punch list items and work arounds. Staffing for the University Link Extension was 6.2 FTE above plan (131% of plan). Year-to-date staffing (64.4 FTE/mo.) is trending 195% (39.6 FTE/mo.) above plan. Cumulatively, since August 2006, average monthly project staffing is within 4% (4 FTE/mo.) of plan.



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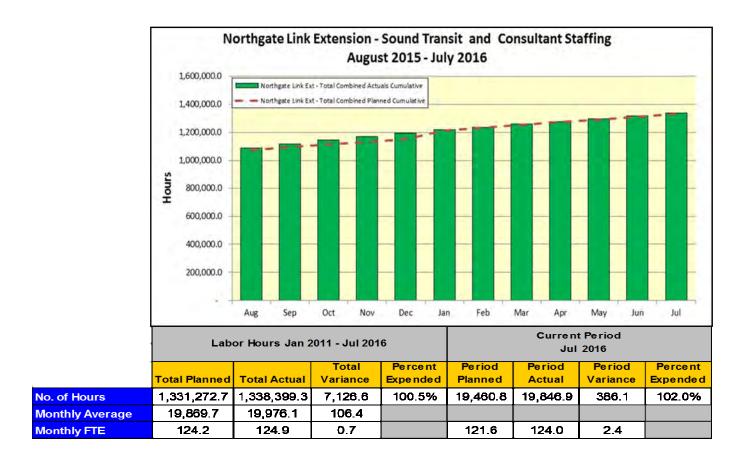
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Total Internal and External Staffing - Northgate Link Extension

During July, 30.7 internal and 93.3 consultant FTE were assigned to the Northgate Link Extension. This is consistent with staffing in June and is 2% (2.4 FTE) above plan; year to date staffing of 131.6 FTE/mo. is trending 8% (10 FTE/mo.) above plan. Cumulatively since January 2011 average monthly staffing is trending with plan.

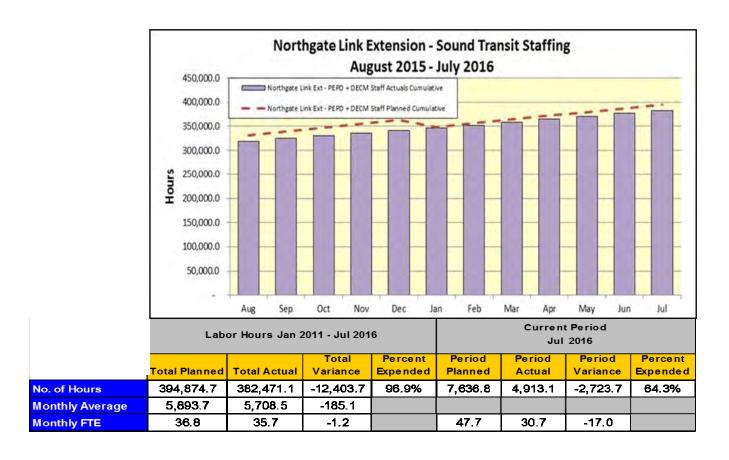


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Internal Resource Commitments to Northgate Link Extension

Internal staffing in July (30.7 FTE) decreased 33% (10 FTE) from June and was 36% (17 FTE) below plan. Cumulatively, since January 2011, average monthly internal staffing (35.7 FTE/mo.) is trending within 4% of plan.

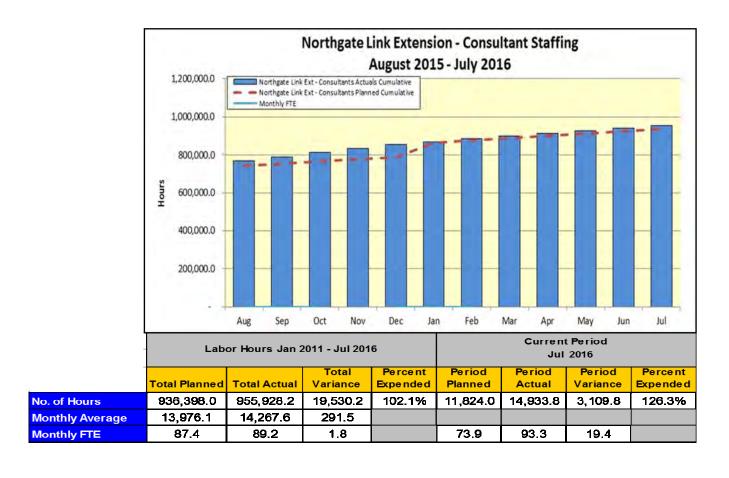


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Consultant Resource Commitments to Northgate Link Extension

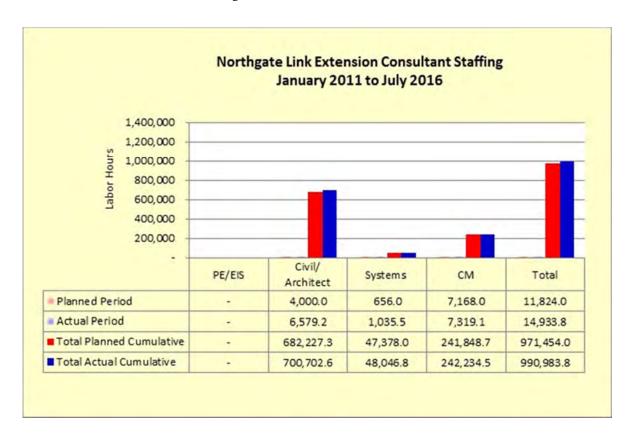
In July, 93.3 consultant FTE were assigned to the Northgate Link Extension; consultant staffing was above plan by 26% (19.4 FTE) and was 9% (7.8 FTE) above June staffing. Cumulatively, since January 2011, average monthly consultant utilization (89.2 FTE/mo.) is trending within 3% of plan.



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Consultant Resource Commitments to Northgate Link Extension



Consultant utilization by discipline follows:

- Civil/architecture consultant utilization in July (41 FTE) was consistent with June staffing and was 64% (16 FTE) above plan. Cumulatively since January 2011, average civil engineering/architecture consultant staffing of 65.4 FTE/mo. is trending within 3% of plan.
- Systems consultant utilization (6.5 FTE) was 92% (5.4 FTE) above June and was 58% (2.4 FTE) above plan. Since January 2011, average monthly Systems consultant staffing is trending with plan.
- CM consultant staffing in July (45.7 FTE) was 11.1% (23 FTE) above June staffing and was 2% (0.9 FTE) above plan. Cumulatively, since January 2011, average monthly CM consultant staffing (22 FTE/mo.) is trending with plan.

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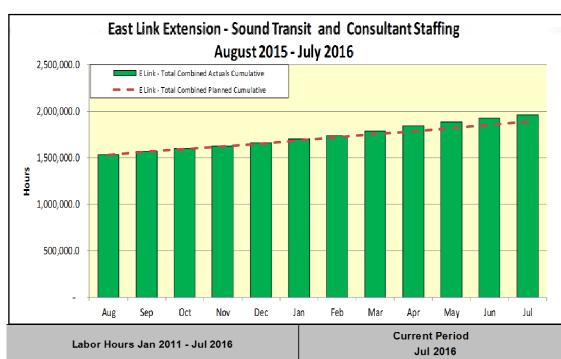
Link Light Rail Staffing Report



East Link Extension Staffing

Total Internal and External Staffing – East ink Extension

Staffing for the East Link Extension in July (209.2 FTE) decreased 25% (71.5 FTE) from June and was 1% (2.9 FTE) below plan. Year-to-date staffing of 270.2 FTE/mo. is 27% (58.1 FTE/mo.) above plan; cumulatively since January 2011, average monthly staffing of 182.8 FTE/mo. is 4.1% (7.2 FTE/mo.) above plan.



	La	ibor Hours Jan 2	Jul 2016					
		Total	Total	Percent	Period	Period	Period	Percent
	Total Planned	Actual	Variance	Expended	Planned	Actual	Variance	Expended
No. of Hours	1,888,017.5	1,963,816.1	75,798.6	104.0%	33,932.4	33,471.4	-4 61.0	98.6%
Monthly Average	28,179.4	29,310.7	1,131.3					
Monthly FTE	176.1	183.2	7.1		212.1	209.2	-2.9	

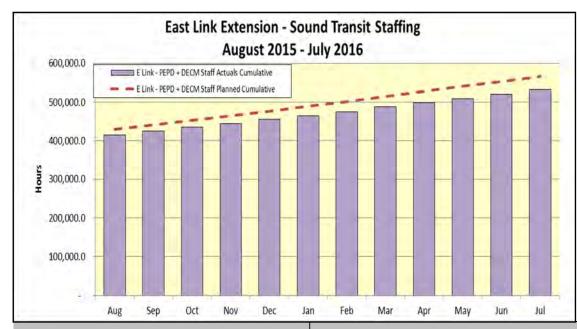
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East Link Extension Staffing

Internal Resource Commitments to East Link Extension

During July internal staffing for the East Link Extension (67.5 FTE) was 7% (4.9 FTE) below June staffing and was 15% (12.3 FTE) below plan. Cumulatively, since January 2011, average monthly internal staffing 49.6 FTE/mo. is trending 6% (3.2 FTE/mo.) below plan.



_	La	Current Period Jul 2016						
		Total	Total	Percent	Period	Period	Period	Percent
	Total Planned	Actual	Variance	Expended	Planned	Actual	Variance	Expended
No. of Hours	565,776.6	531,668.7	-34,107.9	94.0%	12,753.6	10,792.0	-1,961.6	84.6%
Monthly Average	8,444.4	7,935.4	-509.1					
Monthly FTE	52.8	49.6	-3.2		79.7	67.5	-12.3	

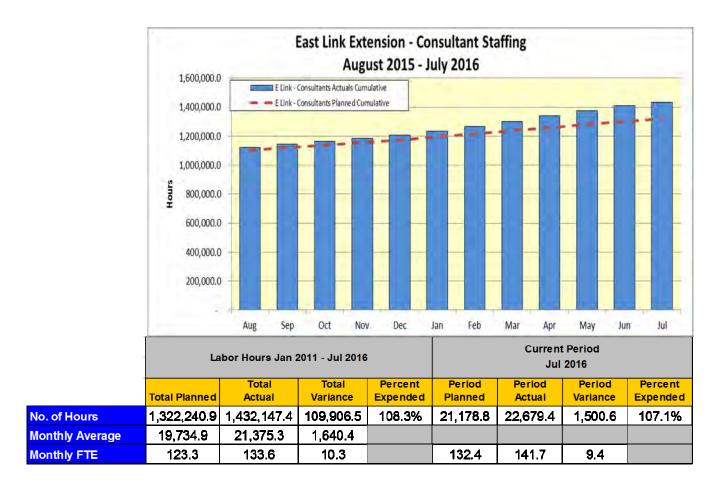
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East Link Extension Staffing

Consultant Resource Commitments to East Link Extension

There were 141.7 consultant FTE assigned to the East Link Extension during July. Consultant staffing decreased 32% (66.6 FTE) from June and was 7% (9.3 FTE) above plan. Cumulatively since January 2011, average monthly consultant staffing is trending 8.3% (10.3 FTE/mo.) above plan.



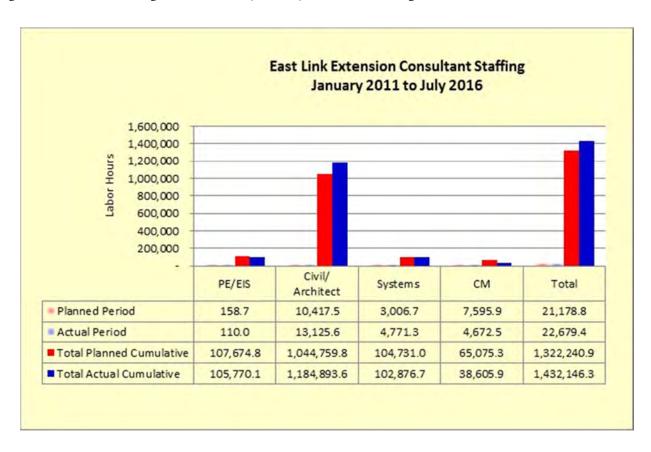
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East Link Staffing

Consultant Resource Commitments to East Link, continued

In July civil engineering consultant staffing (82 FTE) was 58% of consultant staffing. Civil engineering consultant staffing was 46% (29 FTE) below June staffing and 26% (16.9 FTE) above plan. Systems consultant staffing (29.8 FTE) was 49% (11 FTE) above plan and was 7.1% (1.9 FTE) above June staffing. There were 0.7 consultant FTE performing Preliminary Engineering (PE) and 29.2 FTE (38% below plan) providing construction management. Construction management consultant staffing increased 5.4% (1.5 FTE) above June staffing.

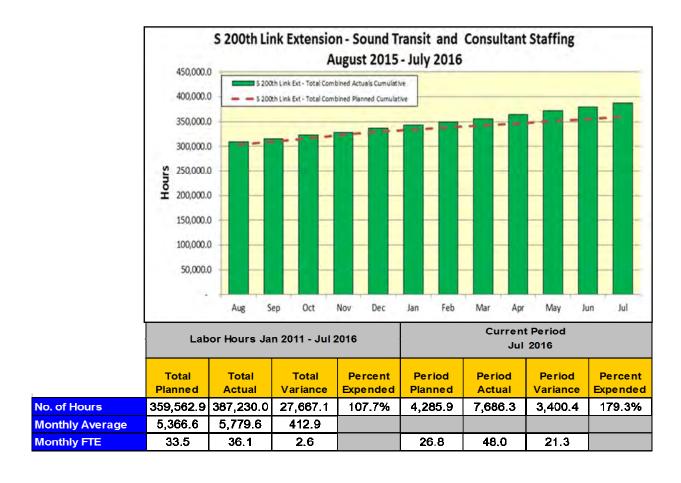


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Total Internal and External Staffing - S. 200th Link Extension

Staffing for the South 200th Link Extension in July (48 FTE) was 79% (21.3 FTE) above plan and 4% (2.2 FTE) below June staffing. Year-to-date staffing is 44.7 FTE/mo. and is 67% (17.9 FTE/mo.) above plan. Since January 2011, average monthly internal and consultant staffing (356.1 FTE/mo.) is 7.7% (2.6 FTE) above plan.

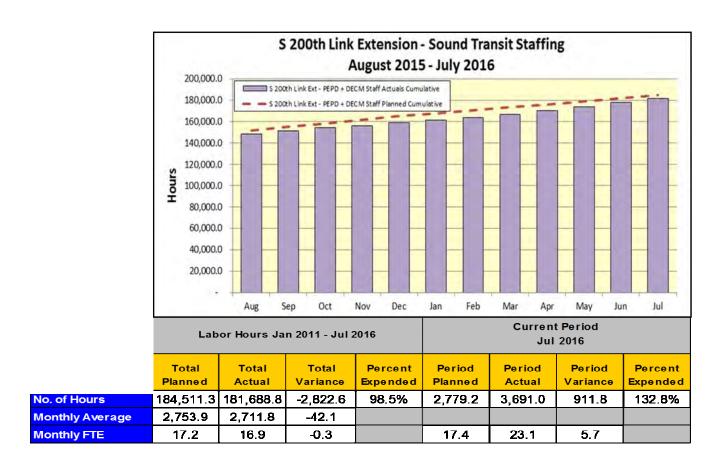


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Internal Resource Commitments South Link to S.200th Link Extension

Internal staffing in July (23.1 FTE) decreased 12% (2.7 FTE) from June and was 33% (5.7 FTE) above plan. Cumulatively, since January 2011, average monthly internal staffing is trending 1.5% (0.3 FTE/mo.) below plan.

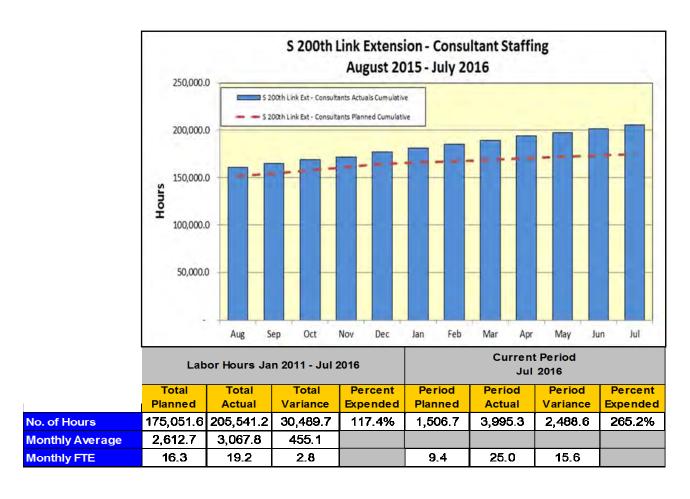


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Consultant Resource Commitments to S. 200th Link Extension

Consultant staffing on the S. 200th Link Extension in July (25 FTE) increased 2% (0.4 FTE) from June and was 165% (15.6 FTE) above plan. Cumulatively since January 2011, average consultant staffing is trending 17.4% (2.8 FTE/mo.) above plan.

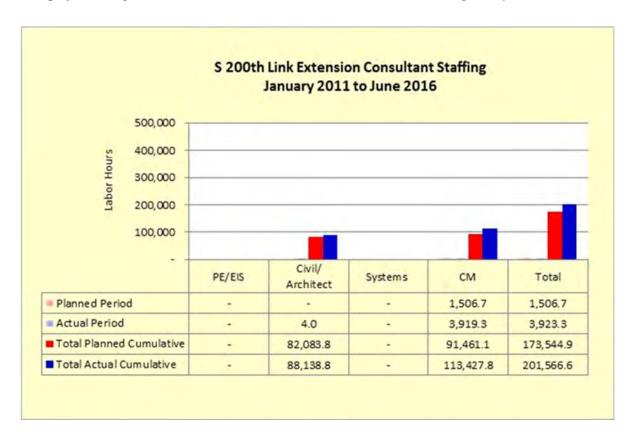


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Consultant Resource Commitments to S. 200th Link Extension

Design/build project management consultants accounted for 100% of consultant staffing in July.



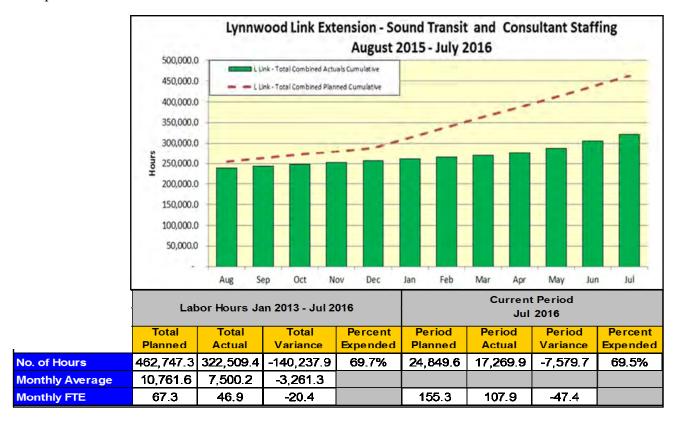
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Lynnwood Link Extension Staffing

Total Internal and Consultant Staffing - Lynnwood Link Extension

During July Lynnwood Link Extension staffing was 107.9 FTE (69% of plan) and included 76.4 consultant FTE (71% of plan) and 30.9 internal FTE (66% of plan). Internal staffing for July was consistent with June staffing; consultant staffing decreased 6% (4.7 FTE) in July. Year-to-date staffing (62.6 FTE/mo) for the Lynnwood Link Extension is 40% of plan.



Over 97% of consultant staffing (71.9 FTE) were civil engineering consultants. Additional consultant staffing (4.5 FTE) provided construction management support. Since January 2013, average project staffing for the Lynnwood Link Extension (46.9 FTE/mo.) is 30.3% (20.4 FTE/mo.) below plan.

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Tacoma Link Extension

<u>Total Internal and Consultant Staffing – Tacoma Link Extension</u>

During July there were 6 FTE (25% of plan) assigned to the Tacoma Link Expansion including 1.8 consultant FTE (16% of plan) and 4.2 internal FTE (32% of plan). Year-to-date staffing is 10.8 FTE/mo. (45% of plan). The plan assumed that the final design and construction management consultant team would be in place by January; design will begin in 3Q 2016.

All consultant staff assigned to the project were supporting preliminary engineering.

		Labor Hou	ırs Jan 2016				t Period 2016	
	Total		Total	Percent	Period	Period	Period	Percent
	Planned	Total Actual	Variance	Expended	Planned	Actual	Variance	Expended
No. of Hours	26,913.6	10,837.1	-16,076.5	40.3%	3,844.8	952.2	-2,892.6	24.8%
Monthly Average	3,844.8	1,548.2	-2,296.6					
Monthly FTE	24.0	9.7	-14.4		24.0	6.0	-18.1	

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Link Light Rail Acronyms



ACRONYMS

AA Alternative Analysis

APE Area of Potential Impact

BCE Baseline Cost Estimate

BCWS Budgeted Cost of Work

BIM Building Information Modeling

BNSF Burlington Northern Santa Fe Railway

CCB Change Control Board
CDF Controlled Density Fill
CHS Capitol Hill Station

CM Construction Management
CMU Concrete Masonry Unit

CO Change Order

CPI Cost Performance Index
CPM Critical Path Method

DAHP Department of Archaeology & History Preservation

DART Days Away, Restricted or Modified

DB Design -Build

DECM Design, Engineering and Construction Management

DEIS Draft Environmental Impact Statement

DPD Seattle Department of Planning and Development

DSC Differing Site Conditions

DSDC Design Support During Construction
DSTT Downtown Seattle Transit Tunnel

EFC Estimated Final Cost

EMI Electro Magnetic Interference

FD Final Design

FHWA Federal Highway Administration

FSEIS Final Supplemental Environmental Impact Statement

FFGA Full Funding Grant Agreement FTA Federal Transit Administration

FTE Full Time Employee

GC/CM General Contractor / Construction Management
HVAC Heating, Ventilation and Air Conditioning

ICD Integration Control Document
IRT Independent Review Team
IWP Industrial Waste Permit

JA Jacobs Associates

JARPA Joint Aquatic Resource Permit Application

KCM King County Metro

LNTP Limited Notice to Proceed

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Link Light Rail Acronyms

ACRONYMS, continued

LRRP Light Rail Review Panel

LRT Light Rail Transit
LRV Light Rail Vehicle

LTK Engineering Services

MACC Maximum Allowable Construction Cost

MDA Major Discharge Authorization
MLK Martin Luther King, Jr. Way
MOA Memorandum of Agreement
MOS Minimum Operable Segment
MOU Memorandum of Understanding

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 Administration

NTP Notice to Proceed

OCS Overhead Catenary System

OMF Operations and Maintenance Facility

OMSF Operations and Maintenance Satellite Facility

PE Preliminary Engineering
PEP Project Execution Plan

PEPD Planning, Environment and Project Development

PMOC 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

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Link Light Rail Acronyms



ACRONYMS, continued

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 & Witbeck, Inc.

TBM Tunnel Boring Machine

TCE Temporary Construction Easement

TE Traction Electrification

TFK Traylor Frontier Kemper Joint Venture

TOD Transit Oriented Development

TVM Ticket Vending Machine
UAC Unallocated Contingency
U-Link University Link project

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

WSDOT Washington Department of Transportation

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