

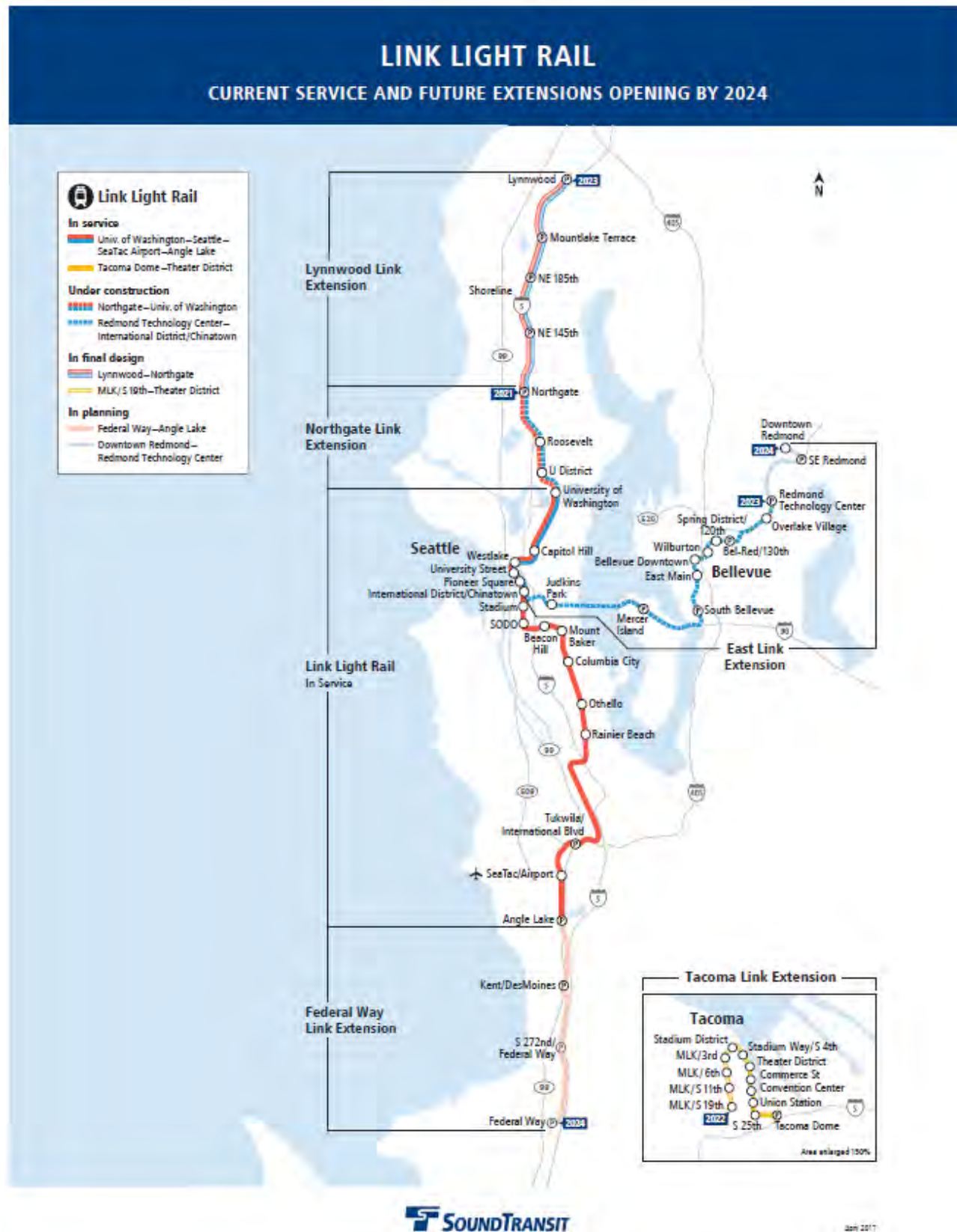
Progress Report Link Light Rail Program



Building the deck for the overhead catenary system formwork at the track slab
(Northgate Link Extension)

DECEMBER | 2017





Map of Sound Transit's current and future light rail projects.

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 \$488.4M.

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.

Downtown Redmond Link Extension: The Downtown Redmond Link Extension builds new light rail from the Redmond Technology Center Station to downtown Redmond by 2024. Light rail will travel along SR-520 with two new stations in southeast Redmond, at Marymoor Park, and downtown Redmond. Preliminary Engineering for the Redmond light rail extension has a budget of \$28.6M.

West Seattle and Ballard Link Extensions: The West Seattle & Ballard Link Extensions are voter-approved projects under the ST3 Plan. West Seattle segment includes 4.7 miles of light rail from downtown Seattle to West Seattle's Junction neighborhood. It includes 5 light rail stations. The route will run primarily on elevated guideway with a new rail-only bridge over Duwamish River. The Ballard segment includes 7.1 miles of light rail from downtown Seattle to Ballard's Market Street area. It includes 9 light rail stations. The route will run through a new downtown Seattle rail-only tunnel, elevated guideway, and a rail-only bridge over Salmon Bay. The current budget for these projects through completion of Preliminary Engineering is \$286M.

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 was developed through a design-build (DB) delivery strategy. The Sound Transit Board adopted the baseline capital budget of \$383.2M in 2011. Revenue Service began on September 24, 2016.

Federal Way Link Extension: The Federal Way Link Extension adds approximately 7.8 miles of light rail from the Angle Lake Station in the City of SeaTac to the Federal Way City Center. The extension generally parallels SR 99 and I-5 freeway with stations at Kent/Des Moines, South 272nd Star Lake park –and-ride and the Federal Way Transit Center. The current budget for this project is \$412.6M.

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. The Sound Transit Board adopted the baseline capital budget of \$217.3M in September 2017.

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 \$449.2M in July 2016.

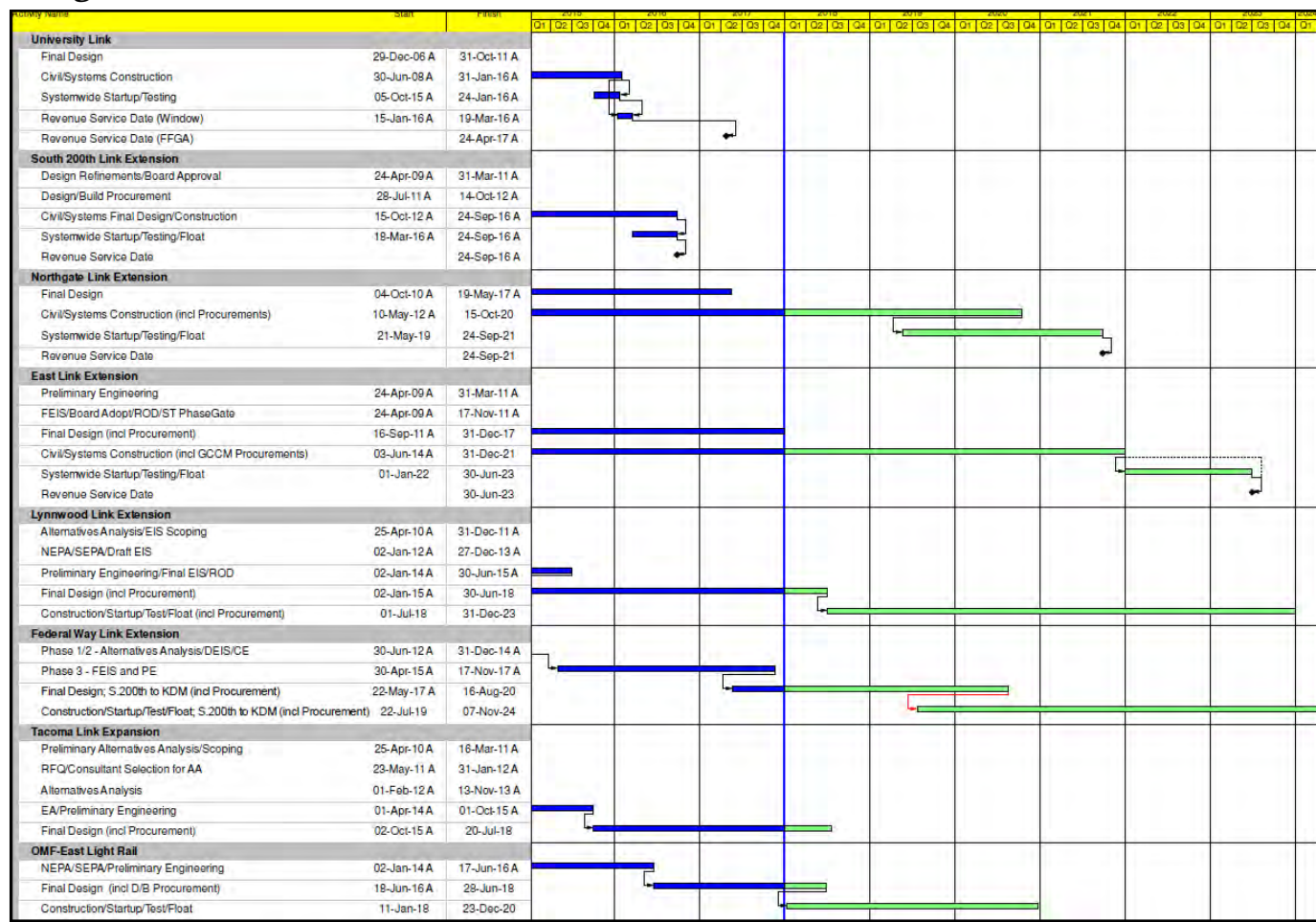
Light Rail Vehicle (LRV) Fleet Expansion: This project includes the design, manufacturing, inspection, testing and delivery of 152 low floor LRVs for service requirements of Northgate, East Link and Lynnwood Link Extensions. The Sound Transit Board adopted the baseline capital budget of \$740.7M in September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

Program Budget

Table in millions.

Project	Authorized Project Allocation	Commitment to Date	Incurred to Date	Forecast to Complete	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
University Link	\$1,756.0	\$1,513.4	\$1,504.7	\$40.7	\$1,554.1	\$201.9
Northgate Link Extension	\$1,899.8	\$1,599.5	\$1,043.0	\$247.8	\$1,847.4	\$52.4
Lynnwood Link Extension	\$488.4	\$251.5	\$199.2	\$236.8	\$488.4	\$0
East Link Extension	\$3,677.2	\$2,816.4	\$1,031.9	\$860.8	\$3,677.2	\$0
Downtown Redmond Link	\$28.6	\$16.1	\$10.1	\$12.5	\$28.6	\$0
West Seattle & Ballard Link	\$285.9	\$25.5	\$2.2	\$260.4	\$285.9	\$0
South 200th Link Extension	\$383.2	\$330.8	\$327.8	\$1.8	\$332.6	\$50.6
Federal Way Link Extension	\$412.6	\$60.0	\$57.4	\$352.7	\$412.6	\$0
Tacoma Link Extension	\$217.3	\$56.4	\$22.3	\$160.9	\$217.3	\$0
Link O & M Facility: East	\$449.2	\$351.0	\$131.3	\$98.2	\$449.2	\$0
LRV Fleet Expansion	\$740.7	\$653.8	\$74.1	\$86.9	\$740.7	\$0
Total Link	\$10,338.9	\$7,674.4	\$4,404.1	\$2,359.6	\$10,034.0	\$304.9

Program Schedule



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) campus near Husky Stadium.
- Tunnels:** Two twin bored tunnels. Two contract segments: 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, traction electrification, and SCADA communications
- Budget:** \$1.948 billion including finance cost (capital subtotal of \$1.756 billion)
- Schedule:** Revenue Service began on March 19, 2016.



Key Project Issues

- *U830 Systems:* Contractor is currently focusing on punch list on ULINK and systems refinement to achieve optimal operation status. U-Link Systems has encountered some issues related to this infancy period and is working to resolve them.
- *Certification of Occupancy:* University Link continues to operate under a temporary certification of occupancy until all permit requirements are fully met. The final items remaining are the utilities as-built to be submitted to Seattle Public Utilities (SPU). Final review of the emergency ventilation systems by the Seattle Fire Department (SFD) is complete and has been accepted by SFD.
- Commercial issues with all prime Civil Contractors (with the exception of Capitol Hill Station Contractor) have been negotiated as the project proceeds through the close out process. Ongoing review of commercial issues with Systems Contractor.
- Miscellaneous follow-on commitments and restoration work remains. Decommissioning of monitoring wells, restoration of the Systems staging area on Pine Street are anticipated when the weather improves. Before and After Study commitment to be initiated in the fall of 2018.

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	Authorized Project Allocation	Commitment to Date*	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
ADMINISTRATION	\$ 115.23	\$ 113.55	\$ 82.50	\$ 81.71	\$ 88.17	\$ 25.38
PRELIMINARY ENGINEERING	\$ 24.39	\$ 24.26	\$ 24.26	\$ 24.26	\$ 24.26	\$ -
FINAL DESIGN	\$ 77.94	\$ 90.31	\$ 87.97	\$ 86.53	\$ 88.66	\$ 1.65
CONSTRUCTION SERVICES	\$ 68.53	\$ 94.81	\$ 86.94	\$ 86.58	\$ 88.71	\$ 6.11
3rd PARTY AGREEMENTS	\$ 18.65	\$ 18.65	\$ 11.65	\$ 11.31	\$ 13.23	\$ 5.42
CONSTRUCTION	\$ 1,180.00	\$ 1,158.18	\$ 994.42	\$ 988.66	\$ 1,022.34	\$ 135.84
VEHICLES	\$ 103.91	\$ 103.91	\$ 99.20	\$ 99.19	\$ 101.91	\$ 2.00
ROW	\$ 167.33	\$ 152.33	\$ 126.43	\$ 126.43	\$ 126.78	\$ 25.55
Capital Total	\$ 1,755.97	\$ 1,756.01	\$ 1,513.38	\$ 1,504.67	\$ 1,554.06	\$ 201.95
FINANCE COST	\$ 191.71	\$ 191.71	\$ 191.71	\$ 174.87	\$ 191.71	\$ -
Project Total	\$ 1,947.68	\$ 1,947.72	\$ 1,705.09	\$ 1,679.55	\$ 1,745.77	\$ 201.95

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

In December, the projected Estimated Final Cost (EFC) including Finance Cost remains at about \$1.75B. As the project inches closer to close out, the timing for expenditure becomes less predictable. This period, after some cost adjustments the project expenditure net about \$800K and continues to inch the project's Incurred to Date amount above \$1.5B (Finance Cost excluded). Direct construction activities pertain to close out and miscellaneous follow on work. The construction EFC continues to be approximately \$1B. The trend continues to hold as the project is essentially completed with only miscellaneous follow on scope and commercial issues remaining. Systems (U830) continues optimization process with some miscellaneous operational equipment purchases trailing. The Total Incurred to Date for the Construction Phase is approximately \$988M and LRV is at about \$99.2M. Cost of LRV repairs were excluded from this project and tracked independently.

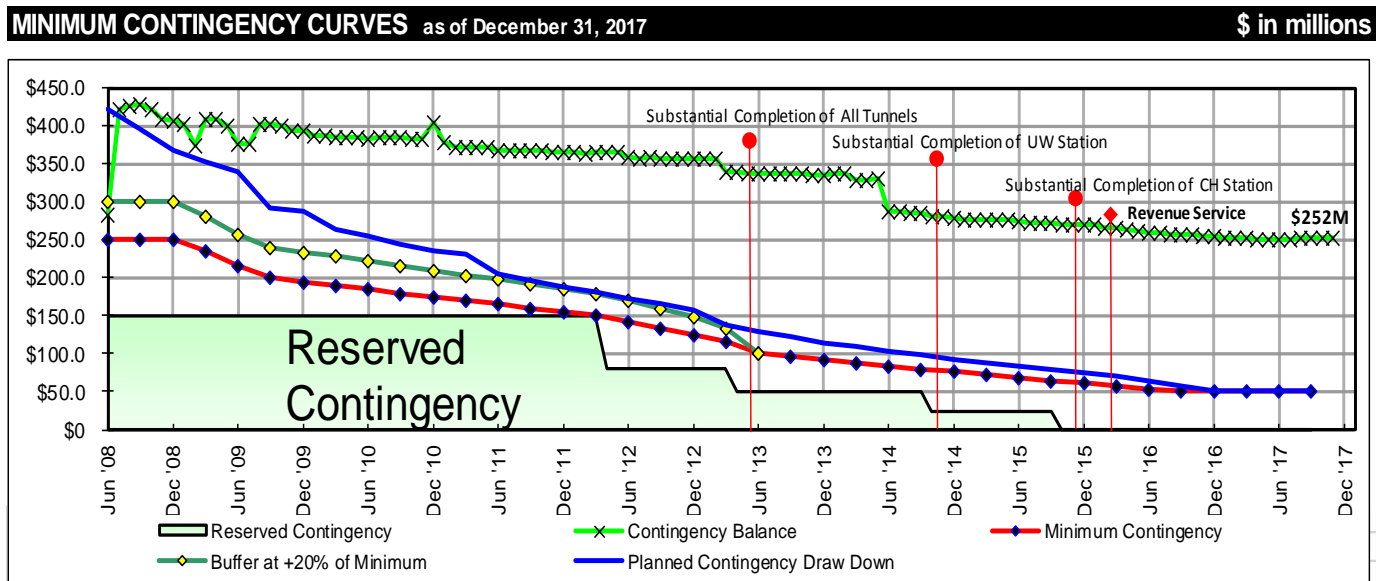
Construction EFC under the SCC format remains relatively unchanged at about \$998M. Construction SCC expenditures to date is about \$976M this period mostly attributed to Systems' continuing optimization and resolutions to change order work and miscellaneous follow on work. Total capital cost incurred to date including non-construction cost (SCC 60 thru 90) now at \$1.5B or about 86% of total project budget scoped (excluding Finance Cost). Total project cost incurred to date at the end of December 2017 including Finance Cost is approximately \$1.68B. The financing cost incurred to date is about \$175M. University Link EFC continues to be projected to close out with at least \$200M under budget excluding financing cost.

Project Elements by SCC	Baseline Budget	Authorized Project Allocation	Commitment to Date*	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track Elements	\$ 626.83	\$ 450.46	\$ 455.56	\$ 455.55	\$ 461.23	\$ (10.77)
20 Stations	\$ 366.33	\$ 350.75	\$ 344.76	\$ 342.97	\$ 353.10	\$ (2.34)
30 Support Facilities: Yards, Shops	\$ 7.01	\$ 24.83	\$ 23.47	\$ 23.34	\$ 24.80	\$ 0.03
40 Sitework & Special Conditions	\$ 59.03	\$ 67.39	\$ 57.14	\$ 54.91	\$ 56.89	\$ 10.50
50 Systems	\$ 69.63	\$ 116.42	\$ 100.45	\$ 99.86	\$ 102.40	\$ 14.02
Construction Subtotal (SCC 10-50)	\$ 1,128.82	\$ 1,009.85	\$ 981.37	\$ 976.63	\$ 998.41	\$ 11.44
60 Row, Land, Existing Improvements	\$ 167.33	\$ 126.60	\$ 126.43	\$ 126.43	\$ 125.76	\$ 0.84
70 Vehicles	\$ 99.76	\$ 100.16	\$ 99.87	\$ 99.87	\$ 100.16	\$ 0.00
80 Professional Services	\$ 306.41	\$ 346.58	\$ 305.70	\$ 301.74	\$ 318.24	\$ 28.34
90 Unallocated Contingency	\$ 53.65	\$ 172.81	\$ -	\$ -	\$ 11.48	\$ 161.33
Capital Cost Total (SCC 10-90)	\$ 1,755.97	\$ 1,756.01	\$ 1,513.38	\$ 1,504.67	\$ 1,554.06	\$ 201.95
100 Finance Cost	\$ 191.71	\$ 191.71	\$ 191.71	\$ 174.87	\$ 191.71	\$ -
Project Total	\$ 1,947.68	\$ 1,947.72	\$ 1,705.09	\$ 1,679.55	\$ 1,745.77	\$ 201.95

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

Cost Contingency Management

At this close out stage of the total project contingencies remains very healthy at approximately \$252M. Multitudes of favorable factors contributed to this positive stage that ranges from construction bidding climate, ROW acquisition cost trends, diligent project risk management practices, to excellent tunneling conditions. In December, overall contingencies decreased due to miscellaneous closed out and follow-on project commitments. While major construction activities are now complete, 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 80% of these contingencies will be remain unused; thereby, generating at least \$200M of budget savings excluding financing cost.



U240 Contract – Capitol Hill Station

Close-out

The U240 Contractor achieved Substantial Completion on December 31, 2015.

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

- 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.

Cost Summary

Present Financial Status	Amount
U240 Contractor - Turner Construction Co	
Original Contract Value	\$104,850,276
Change Order Value	\$11,254,629
Current Contract Value	\$116,104,905
Total Actual Cost (Incurred to date)	\$113,926,440
Financial Percent Complete:	98%
Physical Percent Complete:	99%
Authorized Contingency	\$11,742,514
Contingency Drawdown	\$11,254,629
Contingency Index	1.02

U250 Contract –University of Washington Sta.

Close-out

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

Close-out Activities

- All outstanding claims have been verbally settled and will continue moving through the formal execution phase. A final settlement change order will be issued to the Contractor.

Cost Summary

Present Financial Status	Amount
U250 Contractor - Hoffman Construction Co.	
Original Contract Value	\$141,745,898
Change Order Value	\$ 8,568,882
Current Contract Value	\$150,314,781
Total Actual Cost (Incurred to date)	\$150,254,810
Financial Percent Complete:	99%
Physical Percent Complete:	99%
Authorized Contingency	\$9,152,295
Contingency Drawdown	\$8,568,882
Contingency Index	1.06

U810 Contract – *Maintenance of Way*

Close-out

ST and contractor have settled on a final contract amount.

Close-out Activities

No more updates.

U830 Contract – *Track, Signal, Traction Power and Communications*

Close-out

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

Close-out Activities

Current Period

- Ongoing work on Systems punch list items; delivery of spare parts; and finalizing O&M Manuals, As-built drawings, and other final project documentation.
- Ongoing work on commercial closure of the U830 project. ST working closely with the GC/CM and the EC/CMs to ensure rapid and fair commercial settlement of claims.

Next Period

- Continue Systems punch list, spare parts delivery, and finalizing O&M Manuals and other final project documentation.
- Continue work on commercial closure of the project.

Closely Monitored Issues

- None to report.

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

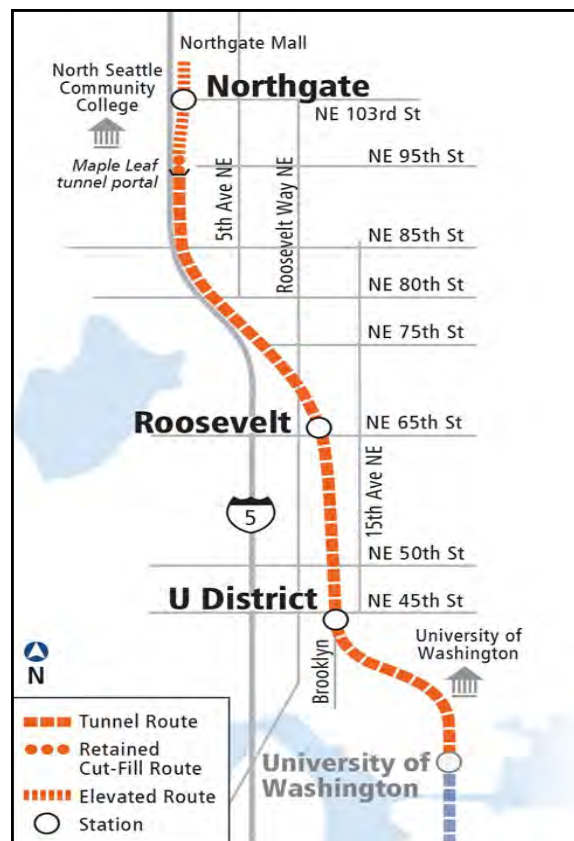
Present Financial Status	Amount
U830 GC/CM Contractor - Stacy & Witbeck	
Original Contract Value	\$119,167,433
Change Order Value	\$3,849,463
Current Contract Value	\$123,016,897
Total Actual Cost (Incurred to date)	\$121,998,784
Financial Percent Complete	99.2%
Physical Percent Complete:	99.0%
Authorized Contingency	\$5,958,373
Contingency Drawdown	\$3,849,463
Contingency Index	1.5

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Link Light Rail Northgate Link Extension

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 (UDS)* is an underground station located on the west side of the UW campus near Brooklyn Ave. and NE 45th St. The *Roosevelt Station (RVS)* 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:** Construction



Key Project Activities

- UW approved the Vibration Attenuation Estimates (VAE) Phase 2 test plan and signed the MIA waiver letter.
- The Contractor witnessed verification testing of Ultra-Straight rail at British Steel's facility in Hayange, France.
- **Tunnel, Cross Passages, and Maple Leaf Portal (N125):** Crews completed the removal of equipment to allow full access for N180 to tunnels south of U District. The Milestone 5A-Substantial Completion notice and punchlist was issued for work south of the U District station this period. Crews completed street restorations at cross passage north of Roosevelt Station and cross passage south of the portal (including construction of new ADA ramps).
- **U District Station/UW Campus (N140):** VAE Phase 2 work is proceeding well with testing occurring across UW's campus. Hoffman Construction placed concrete at the north and south headwalls and at column pedestals.
- **Roosevelt Station (N150):** In the basement level one, Hoffman began installation of conduits, formwork and rebar and placed key wall extensions. Hoffman began forming and rebar for center beams. They continued deck forming for south basement level two. Crews placed concrete for the center lift walls at manlift.
- **Northgate Station (N160):** SDOT's Northgate multi-use path design will displace ST's planned North Watercourse enhancement. *Guideway Substructure/Superstructure:* Crews forming interior diaphragms and track slab edges on overhangs; continued work on bents, columns and caps at several locations. *Station:* Work is progressing on Spans C1 through C4. *Garage:* Crews continue to move PERI table formwork to begin deck; placed columns and pilasters.
- **Trackwork (N180):** Fifty-five percent of the 3'-10" floating slabs have been produced while twelve percent of the 7'-10" floating slabs including trench caps have been produced.

Closely Monitored Issues:

- Milestone 6 for N125 is due on February 11. JCM is required to complete its work by mid- January to accommodate the 26 remaining days of ST-controlled float. Elcon's in-tunnel electrical work has replaced MLP structural work as being the critical path to Milestone 6 in the most recent schedule from JCM. Elcon has made significant progress between MLP and RVS, but much work remains to be completed.



Ongoing in-tunnel electrical work.

Project Cost Summary

The Northgate Link Extension 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). 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	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
ADMINISTRATION	\$147.9	\$147.9	\$53.5	\$54.9	\$135.7	\$12.1
PRELIMINARY ENGINEERING	\$15.1	\$15.1	\$15.1	\$15.1	\$15.1	\$0.0
FINAL DESIGN	\$129.2	\$129.2	\$116.7	\$107.8	\$134.4	\$(5.3)
CONSTRUCTION SERVICES	\$118.3	\$118.3	\$97.7	\$61.4	\$110.9	\$7.5
3rd PARTY AGREEMENTS	\$11.8	\$11.8	\$10.0	\$6.5	\$12.4	\$(0.6)
CONSTRUCTION	\$1,343.0	\$1,343.0	\$1,212.8	\$703.8	\$1,333.0	\$10.1
ROW	\$112.3	\$112.3	\$93.8	\$93.7	\$106.0	\$6.3
PROJECT CONTINGENCY	\$22.2	\$22.2	\$0.0	\$0.0	\$0.0	\$22.2
Total	\$1,899.8	\$1,899.8	\$1,599.5	\$1,043.0	\$1,847.4	\$52.4

The Estimated Final Cost (EFC) for the project as of this reporting period is \$1,847.4M, which is \$52.4M below the current project budget. This period approximately \$23.0M was incurred, of which \$18.7M was for the ongoing major construction contracts including the N125 tunneling contract, the N140, N150, and N160 Station Finishes contracts, the N180 Trackwork contract and N830 Systems contract, and other miscellaneous construction; \$0.5M was incurred for civil and systems final design and design support during construction; and \$1.5M was for construction management. The remaining expenditures were for third party coordination, permits, staff, legal, right-of-way and other direct charges.

Cost Summary by SCC

SCC Element	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 GUIDEWAY & TRACK	\$595.6	\$547.6	\$508.7	\$416.6	\$535.1	\$12.5
20 STATIONS	\$376.1	\$429.0	\$415.8	\$144.3	\$445.7	(\$16.7)
30 SUPPORT FACILITIES: YARD, SHOP	\$5.3	\$5.3	\$6.4	\$5.4	\$6.4	(\$1.1)
40 SITEWORK & SPECIAL CONDITIONS	\$140.8	\$225.1	\$165.0	\$118.7	\$217.5	\$7.5
50 SYSTEMS	\$110.9	\$95.1	\$106.8	\$10.4	\$102.8	(\$7.7)
Construction Subtotal (SCC 10 - 50)	\$1,228.7	\$1,302.1	\$1,202.7	\$695.4	\$1,307.6	(\$5.6)
60 ROW, LAND, EXISTING IMPROVEMENTS	\$119.9	\$110.9	\$93.8	\$93.7	\$105.5	\$5.4
80 PROFESSIONAL SERVICES	\$420.7	\$429.1	\$303.1	\$254.0	\$428.8	\$0.2
90 CONTINGENCY	\$130.4	\$57.8	\$0.0	\$0.0	\$5.4	\$52.3
Capital Total (SCC 10 - 90)	\$1,899.8	\$1,899.8	\$1,599.5	\$1,043.0	\$1,847.4	\$52.4

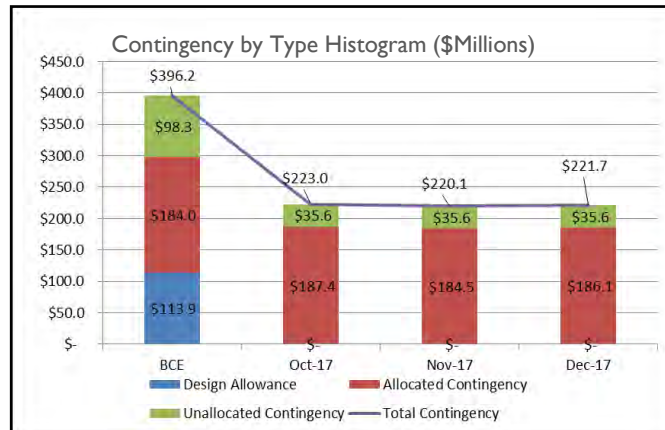
Cost Contingency Management

Compared to the baseline amount of \$396.2M, the Total Contingency has decreased by \$174.5M to \$221.7M, which is 27.6% of project work remaining. During this reporting period, an increase of \$1.6M in the overall project contingency occurred. Detailed information is provided below.

Design Allowance – The baseline Design Allowance of \$113.9 M has been fully depleted and all major contracts have been awarded.

Allocated Contingency – Compared to the baseline amount of \$184.0M, Allocated Contingency has increased by \$2.1M to \$186.1M. During this reporting period, an increase of \$1.8M occurred due to Board authorization for additional Construction Services for trackwork inspection on N180. This was offset by \$0.2M due to the execution of change orders on the N125 Tunnel Contract and the N160 Station Finishes contract.

Contingency Status	Baseline		Current	
	Amount	% of Total	Amount	% of Work Remaining
Design Allowance	\$113.9	5.3%	\$ -	0.0%
Allocated Contingency	\$184.0	8.6%	\$186.1	23.1%
Unallocated Contingency	\$98.3	4.6%	\$35.6	4.4%
Total	\$396.2	18.6%	\$221.7	27.6%



Project Schedule

The N125 Tunneling Contractor (JCM) continues to work toward Substantial Completion, Milestone 6. Punchlist work is continuing between UWS and RVS, with the bulk of the work belonging to the Electrical Subcontractor (Elcon). The final concrete pour at MLP has been completed. JCMs' latest update forecasts the completion date in March, a slip of 2 weeks due to ongoing electrical work. This date includes 26 days of unallocated Project Float. The current completion of work has slipped from January 26th to February 9th.

The N140 U District Station contractor, Hoffman Construction, completed the Basement Level 3 Suspended Slab pour at the south end of the site. In the center area the platform level columns and walls were poured, as well as the Basement Level 2 cross beams. Hoffman continues to work with the N180 contractor, Stacy Witbeck, on preparing the south end of the station platform level for installation of the floating slabs.

At Roosevelt Station (RVS), the N150 contractor, Hoffman Construction, completed the North Basement Level 2 columns and the North Basement Level 1 beams and slab. Center wall pours are continue to move up. At the south end of the station, the columns supporting the Basement Level 2 are in progress.

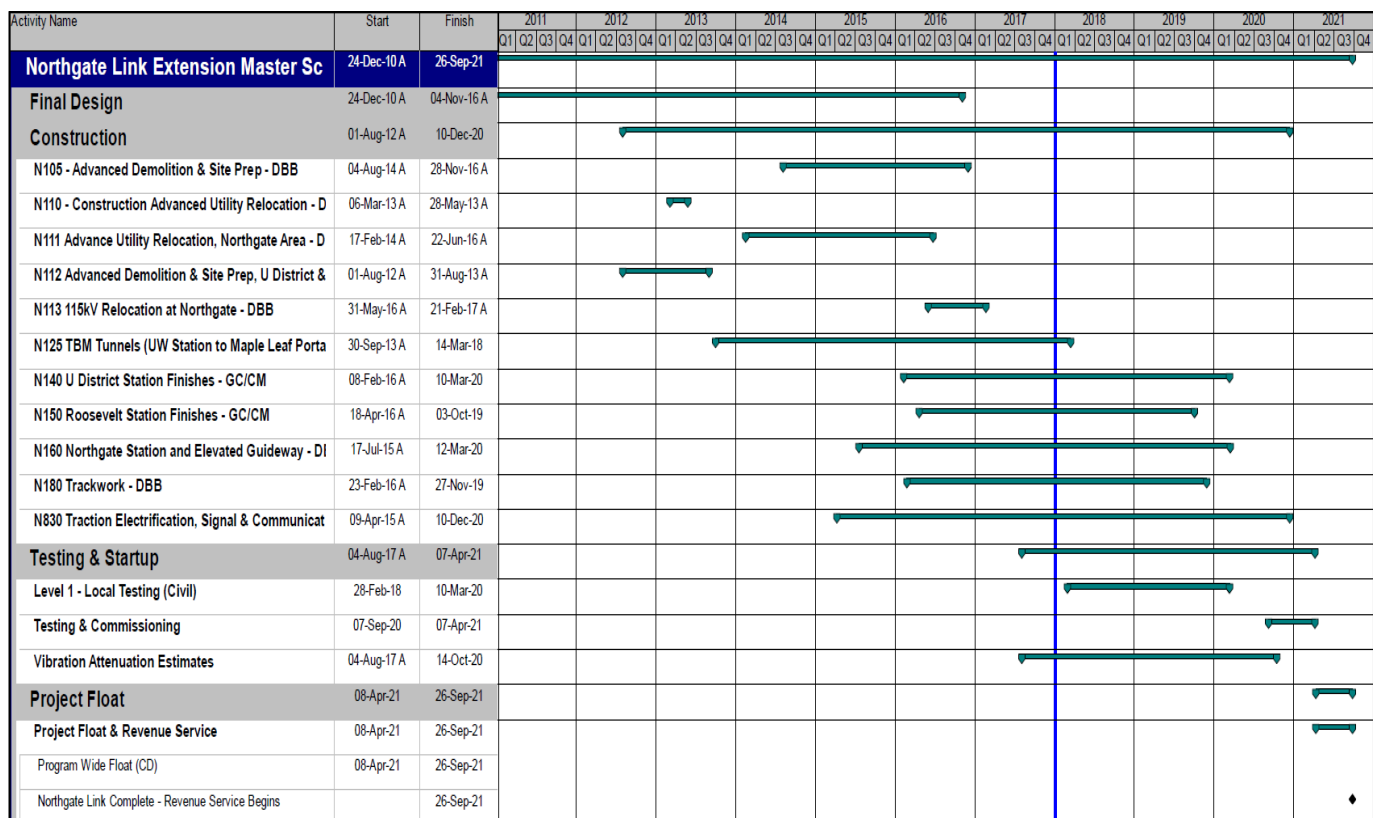
The N160 Contractor, Absher has begun installing the FC-1 and FC-2 Detention Vaults. Platform level spans are ongoing. Columns, column caps, and diaphragm construction continues at Guideway Units 1 and 2. At the Garage, the Basement Level 3 North and South Decks have been completed. Work is now underway to form the Basement Level 2.

On the N180 Trackwork contract, production casting of the 3'10" slabs (40/week) and the 7'10" slabs is continuing. The Ultra-Straight Rail is being rolled at the British Steel facility in France. The rail is scheduled to ship in January with arrival in Vancouver, B.C in mid-February.

The N830/E750 Systems Contractor, Mass Electric, is continuing to work on early engineering. The work at Convention Place Station is nearing completion. Mass Electric is continuing the process of selecting major subcomponent suppliers.

ST is currently evaluating the impact of the Teamster Strike on N140, N150, and N160 contracts.

Revenue Service date for Northgate Link Extension is scheduled in September 2021.



Critical Path Analysis

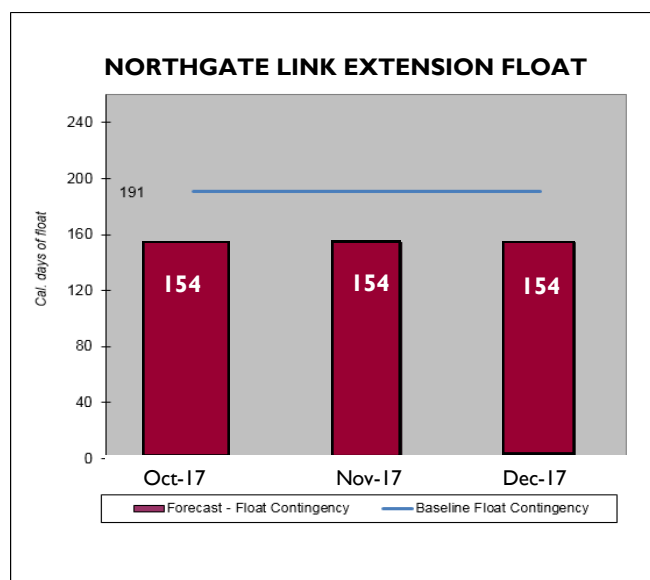
The critical path for the Northgate Link Extension continues to rest in the N140, N180, and N830 contracts. Key is the turnover of UDS "Area A" to Stacy Witbeck for the staging of the floating slabs. The N140 schedule has lost some contract interface float and ST is negotiating with Hoffman in an effort to recover some of the float lost due to the late site access and the teamsters strike. Hoffman construction will also continue the extended shift through January 2018.

Activity Name	Start	Finish	2018				2019				2020				2021			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Northgate Link Extension Master Schedule - V12c	20-Dec-18	26-Sep-21																
Construction	20-Dec-18	28-Dec-20																
N140 U District Station Finishes - GC/CM	18-Jan-19	18-Jan-19																
N180 Trackwork - DBB	20-Dec-18	17-Sep-19																
N830 Traction Electrification, Signal & Communications - GC/CM	18-Sep-19	28-Dec-20																
Testing & Startup	25-Sep-20	25-Apr-21																
Project Float	26-Apr-21	26-Sep-21																
Project Float & Revenue Service	26-Apr-21	26-Sep-21																

Critical Path Float

The Northgate Link Project currently retains 154 days of unallocated project float. Should the project be unable to retain the remaining contract interface floats some project float may need to be used.

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



Construction Safety

Data/ Measure	December 2017	Year to Date	Project to Date
Recordable Injury/Illness Cases	2	25	79
Days Away From Work Cases	0	2	6
Total Days Away From Work	0	178	397
Restricted or Modified Work Cases	2	14	37
Total Days Restricted or Modified Work	47	180	1,077
First Aid Cases	5	46	97
Reported Near Mishaps	3	30	84
Average Number of Employees on Worksite	536	-	-
Total # of Hours (GC & Subs)	84,308	935,261	2,908,133
OSHA Incident Rates	Monthly Average	Year to Date	Project to Date
Recordable Injury Rate	4.74	5.35	5.43
DART (Days Away, Restricted or Modified) Rate	4.74	3.42	2.96
<i>Recordable National Average</i>	<i>3.50</i>	<i>3.50</i>	<i>3.50</i>
<i>DART National Average</i>	<i>2.00</i>	<i>2.00</i>	<i>2.00</i>
<i>Recordable WA State Average</i>	<i>7.00</i>	<i>7.00</i>	<i>7.00</i>
<i>DART WA State Average</i>	<i>3.90</i>	<i>3.90</i>	<i>3.90</i>

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

Right of Way

The U District and Roosevelt stations required 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 are complete with the exception of one remaining parcel at the Northgate Station area which was forecast to settle in 2017 but has been moved out to 2018 to accommodate King County's Board schedule. The right-of-way program status is summarized in the following table.

	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
Total	235	233	0	0	0	231	42	42

Community Outreach

- Installed holidays lights at various stations.
- Published monthly electronic newsletter.
- Responded to complaints regarding various issues including loss of water due to scheduled water line replacement, truck safety and flagging crews, construction noise, etc.
- Coordinated with staff on a response to inquiry about station photography and the camera system in place.
- *Future updates regarding Community Outreach will be provided in the Sound Transit website:*
<https://www.soundtransit.org/Projects-and-Plans/Find-a-Project>.

Sound Transit Board Actions

Board Action	Description	Date
	None to report.	

Environmental

- None to report.

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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. (Complete)

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

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

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

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	Bid Advertisement	NTP	Substantial Completion
N105-Advance Demolition & Site Prep	Mar 2016A	May 2016A	Nov 2016A
N111-Advanced Utility Relocation	Sept 2014A	Jan 2015A	Apr 2016A
N113-SCL 115kV Relocate	Feb 2016A	June 2016A	Feb 2017A
N125-Station Box Exc. & TBM Tunnels	Jan 2013A	Sep 2013A	Feb 2018
N140-U District Station Finishes	Oct 2013A (GC/CM-Precon)	April 2017A (construction)	Jan 2020
N150-Roosevelt Station Finishes	Apr 2013A (GC/CM-Precon)	Dec 2016A (construction)	Sep 2019
N160-Northgate Station & Guideway & Parking Garage	Apr 2016A	Sept 2016A	Jan 2020
N180-Trackwork to Northgate Station	Apr 2016A	Sept 2016A	Oct 2019
N830-Traction Power, Signals & Com	May 2015A (GC/CM-RFQ)	Jun 2017A (construction)	Dec 2020

A = Actual

Contract N125 – TBM Tunnels

Current Progress

The N125 contractor, JCM, is continuing work toward completion of the Cross Passages, and Maple Leaf Portal (MLP) Structure. Punchlist work continues in the tunnel segment between U District Station (UDS) and Roosevelt Station (RVS).

Tunnel Finishes – Crews continue installing fire stand pipe, handrail, electrical and completing punchlist items.

Cross Passage Construction—Work in progress at the end of this period includes: surface restorations at cross passage locations, continuing firestand pipe installation, and electrical installations. Installation of tunnel signage and handrailing is underway. Punchlist work continues between UDS and RVS, as well as UWS and UDS.

MSE Wall—The final wall pour has been completed. JCM will begin demobilizing the MLP operations in January 2018.

Schedule Summary

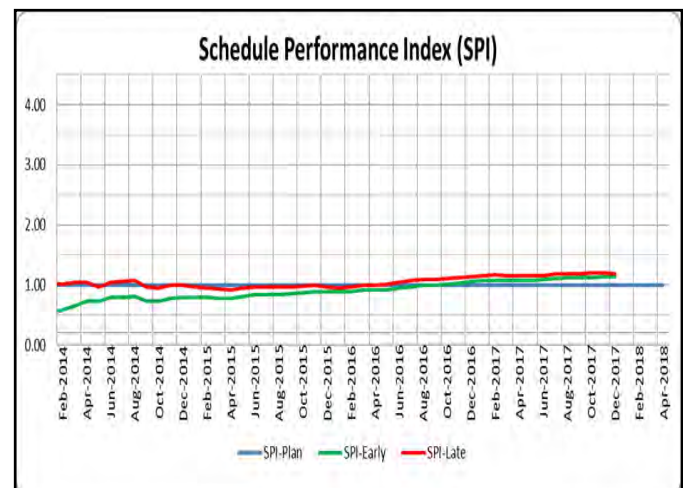
JCMs' December schedule update indicates a slip of two weeks in completion of the work. The slippage is driven by the remaining electrical work at MLP. Fire Standpipe and Electrical work in the cross passages between RVS and MLP are shown as 95% complete but unfinished with the completion dates slipping by three weeks. ST is working with JCM to avoid delay to the MLP turnover to N180.

Activity Name	OD	RD	Start	Finish	2017	2018
						Q1
						Q2
N125 - TBM Tunnels	1044	50	01-Feb-14 A	14-Mar-18		
N125	1044	50	01-Feb-14 A	14-Mar-18		
Construction	1044	50	01-Feb-14 A	14-Mar-18		
Payment Triggers - Project Demobilization	22	22	12-Feb-18	14-Mar-18		
Submittals - Review & Approve	30	15	24-Feb-14 A	15-Jan-18		
Station Work MLP	22	5	01-Feb-14 A	08-Jan-18		
Station Work UW	72	10	30-Aug-17 A	16-Jan-18		
Tunneling	452	41	05-Jul-16 A	28-Feb-18		
Cross Passages - MLP - RVS	117	20	24-Jul-17 A	30-Jan-18		
Cross Passages - Additional SEM Measures	0	0	02-Jan-18	02-Jan-18		
MLP Final Work	28	28	18-Dec-17 A	09-Feb-18		

Schedule Performance Index

The early SPI for this period is 1.1, and the late is 1.2 as the project nears substantial completion anticipated in February 2018.

The schedule update reports a Performance Percent complete of 99% with a Cost Percent complete of 98%.



Link Light Rail

Northgate Link Extension - Construction

Key Activities

Current Period

- Continued internal electrical/tie-in and fire standpipe tie-in work at cross passages.
- Continued electrical testing & commissioning for the tunnels.
- Continued punch list items and concrete repairs for tunnel walkways.
- Continued installation of tunnel handrails.
- Continued feeder cable pulling.
- Continued installation of UPS systems and electrical work in the electrical/storage room at UWS.
- Completed installation of rebar and formwork for east retaining wall sound wall at MLP.
- Continued installation of rebar and formwork for finish base slab at the portal area.

Next Period

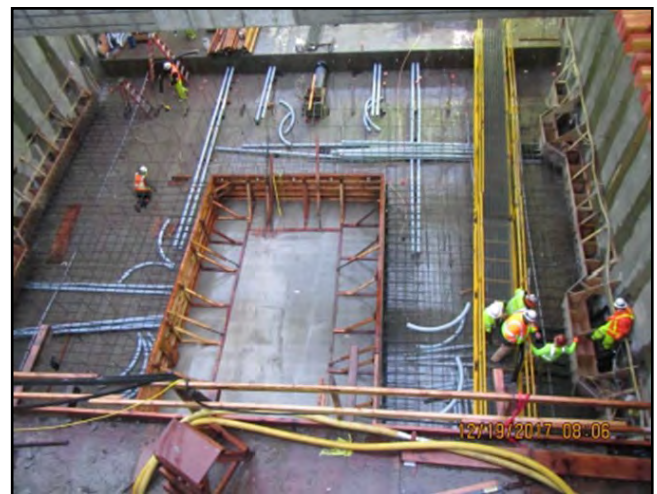
- Continue post-construction building surveys.
- Continue performing punch list items.
- Complete feeder cable pulling .
- Complete tunnel segment patching and leak repairs.
- Continue internal electrical tie-in work and installation of fire standpipe tie-ins at cross passages.
- Complete installation of UPS system and electrical work in electrical/storage room.

Closely Monitored Issues

- A clash between electrical conduits and drainage pipes in the MLP base slab has forced postponement of the final base slab pour from 12/21/17 until a date after the Christmas PLA Holiday yet to be determined. This may result in the release of further Sound Transit-controlled Milestone 6 float to JCM.

Cost Summary

Present Financial Status	Amount
<i>NI25 Contractor - JCM Northlink</i>	
Original Contract Value	\$ 440,321,000
Change Order Value	\$ 58,165,912
Current Contract Value	\$ 498,486,912
Total Actual Cost (Incurred to date)	\$ 490,243,491
Financial Percent Complete:	98.3%
Physical Percent Complete:	98.4%
Authorized Contingency	\$ 66,048,150
Contingency Drawdown	\$ 58,165,912
Contingency Index	1.12



MLP: Installing rebar, formwork and embedments for final base slab adjacent to portal area.

Contract N140 – U District Station Finishes

Current Progress

The N140 Contractor, Hoffman Construction (HCC), has completed to the south Basement Level 3 slab and re-shored Area A in order to allow the N180 Contractor to begin installation of the floating slabs. The center cross beams have been poured and center walls continue, as do the columns supporting the north Basement Level 3 (BL3).

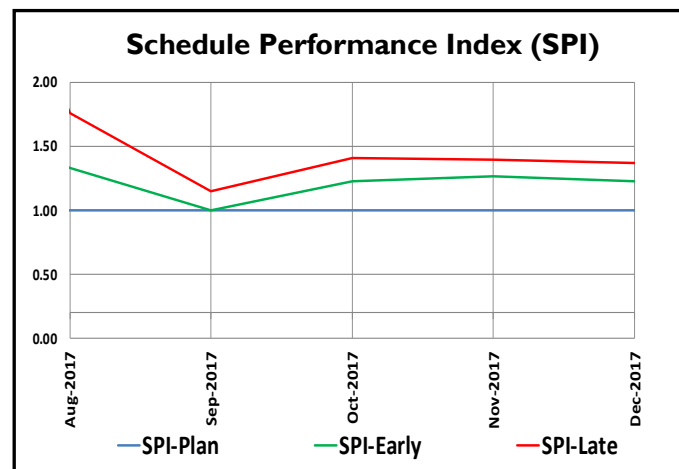
Schedule

The December update showed no slippage in the overall schedule. The schedule continues to indicate negative float as ST is continuing to work with HCC on mitigation measures that could recover time on interim milestones. HCC has been working with the N180 Contractor to complete the access, power, and ventilation requirements needed to support the floating slab installation.

Activity Name	OD	RD	Start	Finish	2018				2019				2020	
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
N140 - U-District Station Finishes	772	557	10-Feb-17 A	10-Mar-20										
CONSTRUCTION	772	557	10-Feb-17 A	10-Mar-20										
Structure	527	312	10-Feb-17 A	25-Mar-19										
EXTERIOR SHELL / SKIN	197	197	24-Sep-18	02-Jul-19										
INTERIORS	339	339	17-Aug-18	18-Dec-19										
ELEVATORS	155	155	14-Dec-18	25-Jul-19										
ESCALATORS	80	80	13-Nov-18	08-Mar-19										
STAIRS	171	171	14-Aug-18	16-Apr-19										
SITWORK	357	357	12-Jun-18	05-Nov-19										
START-UP & COMMISSIONING	225	225	22-Apr-19	10-Mar-20										

Schedule Performance Index

This period, the SPI early is at 1.20 and the SPI late is 1.37. The early index indicates that the contractor is right on track with the expected progress. The project remains on track for schedule and cashflow.



Link Light Rail

Northgate Link Extension - Construction

Key Activities

Current Period

- Continued to prepare and process submittals and RFIs.
- Platform level round columns were stripped at the south end.
- South BL3 suspended slab was poured and formwork has been stripped. Various columns, exterior walls and headwalls were poured and stripped.
- Waterproofing completed at center exterior walls.
- The first pour of X-beams and walers completed at the south end of the center section.
- Forming for the suspended slab at North BL3 completed and rebar is underway.
- Waterproofing and rebar completed for Exterior wall EN2.

Next Period

- Continue to process submittals and RFIs.
- Place concrete at the north headwall and at columns and pedestals.
- Procurement of long lead materials and equipment will continue.

- Waterproofing, forming, rebar, and rough-in activities are scheduled for several areas at South BL3 including interior partition walls, elevator shearwalls, pilasters, and the exterior walls.
- The mudslab at South BL2 is anticipated to pour in preparation for the invert slab.
- Concrete work at the center will continue with more column pours and the next X-strut and waler.
- The suspended slab at North BL3 is planned for early to mid-January which will kick-off concrete wall work at North BL3.
- On-time Turnover of Work Area A to N180 is anticipated mid-January.

Closely Monitored Issues

- Teamsters strike caused some delays with concrete deliveries due to backlog in the market. HCC is working on a time impact analysis and reviewing options to recover time, including Saturday work.

Cost Summary

Present Financial Status	Amount
<i>N140 Contractor - Hoffman Construction</i>	
Original Contract Value	\$159,836,688
Change Order Value	\$100,000.00
Current Contract Value	\$159,936,688
Total Actual Cost (Incurred to date)	\$28,820,426
Financial Percent Complete:	18.02%
Physical Percent Complete:	18.00%
Authorized Contingency	\$7,991,834
Contingency Drawdown	\$100,000
Contingency Index	14.39



U District Station – North Platform job progress.

Contract N150 – Roosevelt Station Finishes

Current Progress

Hoffman Construction (HCC) is currently working to complete the south Basement Level 2 slab, the Center walls and the north Basement Level 1 (BL1) walls and columns. At the north end of the station the Basement Level 2 (BL2) walls are complete and formwork is underway for the BL1 beams and slabs. The work remains on schedule with no slippage in milestones or completion date this period.

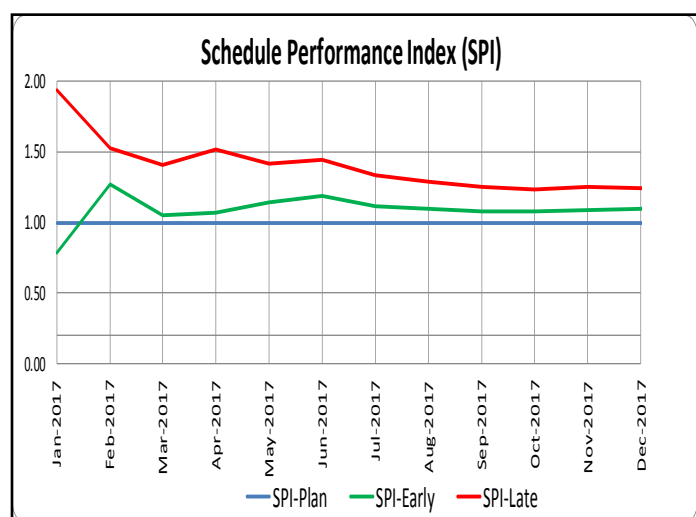
Schedule

The project schedule continues to show the project nine days behind schedule, with no change from the last month. The negative float is a result of the teamsters strike. ST has analyzed the impact and found the days to be justified. A change order is in process to reset the contract milestones affected. This will remove the negative float.

Activity Name	OD	RD	Start	Finish	2017				2018				2019			14	
					Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3		
N150 - Roosevelt Station Finishes	660	436	13-Feb-17 A	17-Sep-19													
CONSTRUCTION	660	436	13-Feb-17 A	17-Sep-19													
MOBILIZATION	586	166	13-Feb-17 A	03-Jun-19													
STRUCTURE	606	382	13-Feb-17 A	01-Jul-19													
INTERIORS	210	210	20-Mar-18	16-Jan-19													
HEADHOUSE	291	291	23-Mar-18	14-May-19													
BUS SHELTER	30	30	08-Jan-19	18-Feb-19													
BIKE CAGE	13	13	22-Oct-18	07-Nov-18													
ELEVATORS	170	170	28-Sep-18	31-May-19													
ESCALATORS	130	130	04-Jun-18	06-Dec-18													
STAIRS	106	106	22-May-18	19-Oct-18													
CP-31	100	100	01-Feb-18	21-Jun-18													
CONSTRUCTION ACCESS INFILL	68	68	04-Jun-19	09-Sep-19													
START-UP & COMMISSIONING	174	174	14-Jan-19	17-Sep-19													
SITE RESTORATION	218	218	04-Jun-18	11-Apr-19													
ARTWORK	148	148	25-Jun-18	24-Jan-19													
CLOSEOUT	20	20	17-May-19	14-Jun-19													
MILESTONES	594	594	31-Jan-18	17-Sep-19													
N830 TRACTION ELECTRIFICATION, SIGNALS, COMMUI	59	59	14-Sep-18	07-Dec-18													

Schedule Performance Index

This period, the SPI early is at 1.10 and the SPI late is 1.20. The early index indicates that the Contractor continues performing slightly ahead of plan when compared to the baseline schedule and does not indicate any slippage from the previous period.



Link Light Rail Northgate Link Extension - Construction

Key Activities

Current Period

- Continued to prepare and process submittals and RFIs.
- Began top mat rebar for the south BL3 elevated deck and relocated the man lift to the center platform area.
- Began installation of conduits, formwork, rebar and placed key wall extensions in the north BL1.
- Continued forming, rebar and placed for south columns from BL2 and BL3.
- Placed concrete for the center walls and completed the bottom rebar mat for the north BL1 elevated deck.
- Began forming and rebar for center beams.
- Continued deck forming for south basement level two.
- Placed concrete for the center lift walls at manlift.
- Placed concrete for decks, walls and columns at several locations within the station.

Next Period

- Complete bottom rebar mat for north BL1 elevated deck.
- Commence installation of conduits in the north BL1 slab.
- Form, rebar and place keyed wall extensions for north BL1.
- Place concrete for center walls.
- Continue with forming, rebar and place for south columns from BL3 to BL2.

Closely Monitored Issues

- Contractor submitted RFC 006- Notice of Impact of Concrete Supply time impact analysis requesting \$0 and 12 additional calendar days to the critical path milestones. HCC revised time impact analysis to CM and ST for review. A request for 12 days to MS 1A and 9 days for MS 3 has been reviewed by CM and ST and CCB review is scheduled for January 2nd.
- Design has received comments back from Sound Transit on a draft of CNWD 013A for added escalator control room. Corrections are being incorporated by Design and expected to be complete this month.
- The drilling subcontractor's availability is awaited from JCM.

Cost Summary

Present Financial Status	Amount
<i>NI50 Contractor - Hoffman Construction</i>	
<i>Original Contract Value</i>	\$152,291,184
<i>Change Order Value</i>	\$1,151,197.00
<i>Current Contract Value</i>	\$ 153,442,381
<i>Total Actual Cost (Incurred to date)</i>	\$ 45,831,385
<i>Financial Percent Complete:</i>	29.9%
<i>Physical Percent Complete:</i>	25.0%
<i>Authorized Contingency</i>	\$ 7,614,559
<i>Contingency Drawdown</i>	\$ 1,151,197
<i>Contingency Index</i>	1.7



RVS view of station box activities looking south N .

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

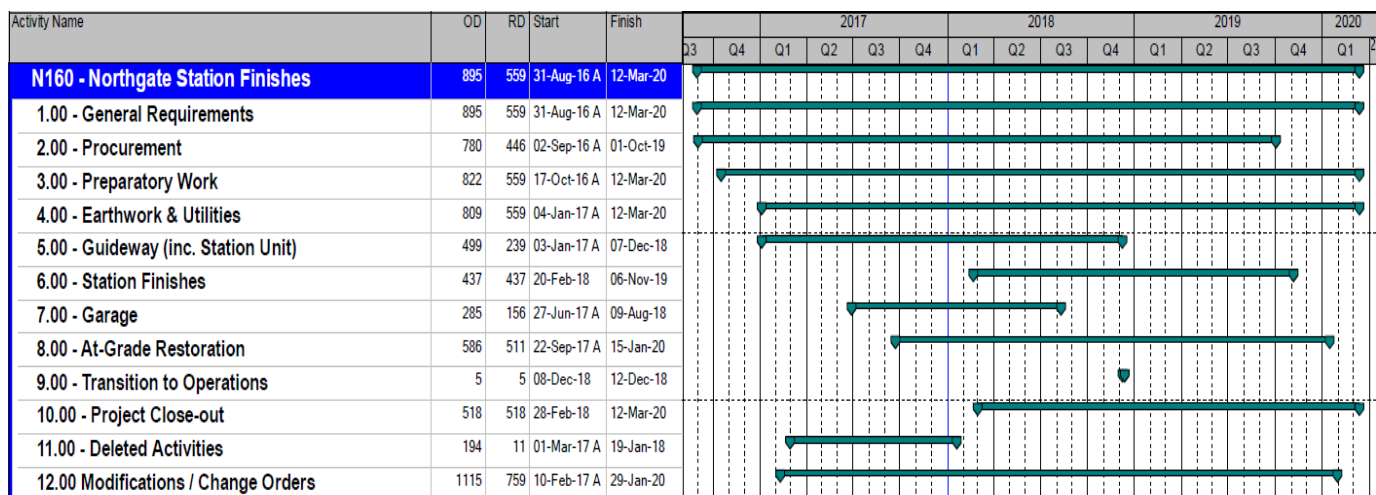
Current Progress

The N160 Contractor is continuing work on the station platform level spans and track slabs. Form, rebar, and pours for the Unit 1 guideway columns, caps, and diaphragms is continuing. Installation of detention vaults FC-1 and FC-2 has been completed.

At the Parking Garage, the BL-3 closure pours are ongoing. Work is progressing for the BL2 north deck, and the BL2 south deck has been poured. Structural backfill will begin in January.

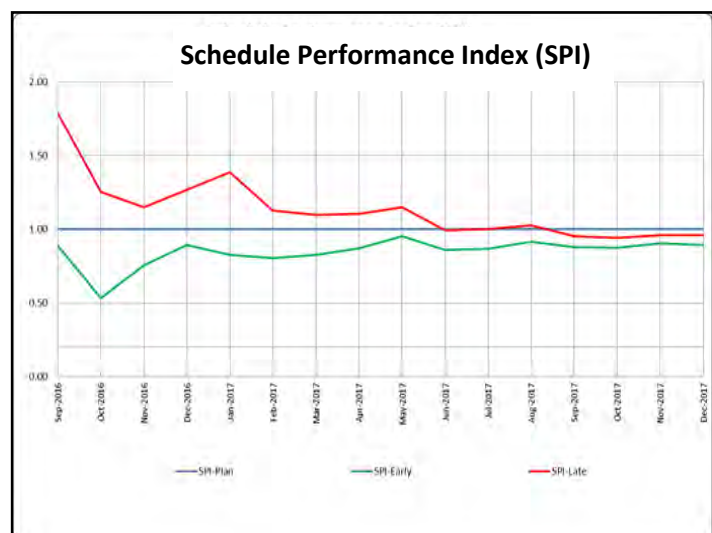
Schedule

The N160 Contractor's December schedule update now forecasts a completion of March 12, 2020, 13 days behind schedule and a loss of 1 day from the November update. Interim Milestone 2—Completion of Guide Units 4-5 and Milestone 5d—Completion of the North Signal Bungalow fell behind in the period due to the misalignment on Span 6 which is delaying completion of work in that segment. The Parking Garage completion, Milestone No. 3, has not experienced any slippage this month.



Schedule Performance Index

This period, the SPI early is at 0.89 and the SPI late is at 0.96. The early index indicates that the Contractor continues performing slightly behind plan when compared to the baseline schedule.



Link Light Rail Northgate Link Extension - Construction

Key Activities

Current Period

- *General Project Progress:* Continued processing and reviewing of submittals and RFIs; held Quality Task meeting.
- *Guideway:* Continued columns and caps on A and B lines. Continued falsework, rebar, PT and concrete placement for B-line spans, diaphragms and track slabs.
- *Station:* Continued falsework, rebar, PT and concrete placement for B-line spans, diaphragms and track slabs.
- *Parking Garage:* Continued conduit, piping, and rebar installation and concrete placement for interior & exterior columns and walls. Completed shotcrete at B2 level and concrete placement at B3. Moved formwork from B3 to B2 and began rebar and PT installation.
- *Utility & Drainage Work:* TESC Maintenance ongoing; Set pre-cast segments for FC-1 and FC-2 drainage vaults, grouted and backfilled. Began water course soldier piles and set SCL vault.
- *Offsite Fabrication:* Girder fabrication ongoing; Completed pre-cast stair and curb fabrication; Continued handrails fabrication; Continued FC-2 segments.

Next Period

- *General Project Process:* Continue processing and reviewing of submittals and RFIs.
- *Guideway:* Substructure/Superstructure: Continue formwork, rebar and concrete placement for columns/caps; Continue girder erection on B-line; Continue placing overhang brackets, walkway/edge forms, and intermediate diaphragms; Complete repair on girders at span 6.
- *Station:* Continue decking platform spans and rebar/PT in deck and beams.
- *Parking Garage:* Continue wall and column rebar and concrete placement; Continue setting shoring and deck for Level B2 floor and beams, and begin concrete placement of B2 deck.
- *Utility & Drainage Work:* Continue prep work for installation of FC-2 drainage vault.

Closely Monitored Issues

- Girders at Span 6 have insufficient clearance to allow for expansion joint. Repair plan to sawcut and jack the girders is under review to correct this situation.
- Schedule slippage on elevated structure – Contractor to provide means of recovery.
- Labor shortages for skilled tradespeople may impact schedule.

Cost Summary

Present Financial Status	Amount
N160 Contractor - Absher Construction	
Original Contract Value	\$174,000,000
Change Order Value	\$ 4,046,658
Current Contract Value	\$178,046,658
Total Actual Cost (Incurred to date)	\$73,540,823
Financial Percent Complete:	41.3%
Physical Percent Complete:	40.0%
Authorized Contingency	\$17,400,000
Contingency Drawdown	\$ 4,046,658
Contingency Index	1.72



Parking garage level 2 decking progress.

Contract N180 – Trackwork UWS to Northgate Station

Current Progress

The N180 Contractor, Stacy Witbeck has begun mobilizing at UDS in preparation for installation of the floating slab segments. The Ultra-Straight Rail (USR) is being produced at the British Steel facility in France and is set to ship at the beginning of January by sea to Vancouver B.C. The pre-cast yard in Woodland continues in production casting of the 3'10" slabs at a rate of 40/week. The 7'10" slabs are also in production status. Testing of the isolation pads is expected to be completed in early January. The N180 Contractor has been meeting with the N140, N160, and N150 contractors to work on the interface and access coordination at the station locations.

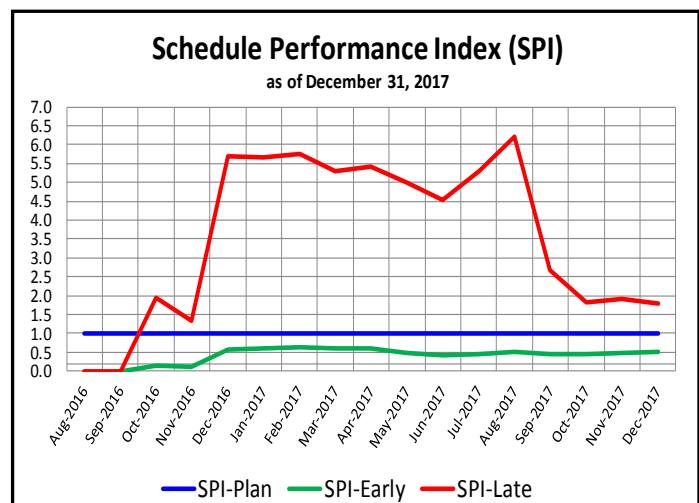
Schedule Summary

The N180 contract remains on schedule at this time.

Activity Name	OD	RD	Start	Finish	2017				2018				2019			
					Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
N180 - Trackwork	793	462	25-Aug-16 A	31-Oct-19												
Construction	793	462	25-Aug-16 A	31-Oct-19												
Mobilization	684	462	25-Aug-16 A	31-Oct-19												
Submittals	1106	612	25-Aug-16 A	05-Sep-19												
Procurement	535	348	07-Oct-16 A	21-May-19												
Work Area 1 (N06 - UWS to UDS Tunnels)	327	296	13-Nov-17 A	08-Mar-19												
Work Area 2.1 and 2.2 (N07 - U-District Station)	331	302	15-Nov-17 A	18-Mar-19												
Work Area 3 (N08 - UDS to RVS Tunnels)	175	175	11-Jan-18	19-Sep-18												
Work Area 4 (N09 - Roosevelt Station)	143	143	12-Mar-18	01-Oct-18												
Work Area 5 (N10 - RVS to MLP Tunnels)	296	296	22-Mar-18	24-May-19												
Work Area 6 (MLP and At Grade Guideway)	329	329	14-Mar-18	03-Jul-19												
Work Area 7 (Elevated Guideway South of NGS)	165	165	03-Dec-18	31-Jul-19												
Work Area 7.1 (N11 - Northgate Station)	104	104	02-Jan-19	30-May-19												
Work Area 7.2 (Elevated Guideway North of NGS)	135	135	02-Jan-19	15-Jul-19												

Schedule Performance

This period the SPI early is at 0.49. The Contractor, Stacy Witbeck, continues to perform ahead of the Late Schedule (SPI 1.80) and behind the early schedule (SPI 0.49). Performance in between the curves is normally what is expected. Due to late access to the tunnel, SWI is behind the baselined schedule, but continues to meet their goals for early work such as material procurement and fabrications.



Link Light Rail Northgate Link Extension- Construction

Key Activities

Current Period

- Columbia Precast Products (CPP) continued casting roughly forty floating slabs per week. Total cast to date: 3'-10": 763 of 1366 slabs (56%); 7'-10": 36 of 252 slabs (14%)
- Scougal Rubber Corporation (SRC) continued production of side and end pads with two presses dedicated to each.
- Progress Rail submitted Hi-resilience DF (Direct Fixation) fastener qualification test report and resubmitted standard DF fastener qualification test report.
- British Steel shipped Ultra Straight Rail (USR) on 12/27/17.
- Contractor's surveyors continued as-built survey and set control.
- SWI completed hanging fans for temporary ventilation at the North end of UWS-UDS tunnels. Fans are connected to Variable Frequency Drives (VFDs).

Next Period

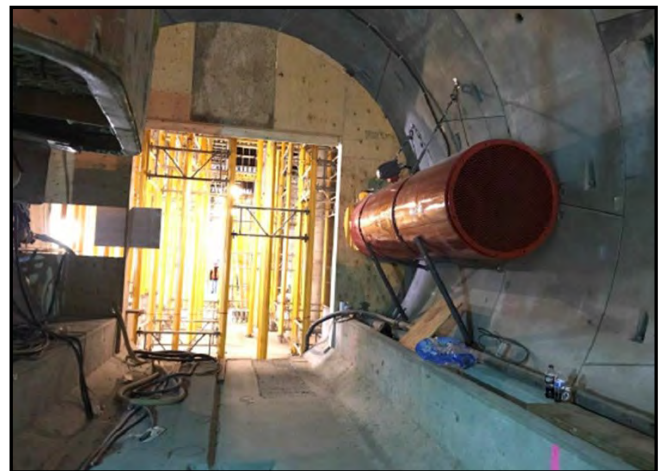
- SWI to continue the install of their control survey in the tunnels between UWS and UDS.
- CPP to continue casting 3'-10" and 7'-10" floating slabs, and trench caps.
- SRC to continue producing tapered side shim pads, side and end separation pads. SRC planning to begin production of main pads upon approval of submittals.
- Complete temporary power connection from N140 for Work Area 1.
- Okonite to begin testing 26kV cable.
- ST prepping for Readiness Review Meetings (RRM) set for January 2018. These include UWS track tie-in, surface roughening, 26kV cable and splice, floating slab support, drill and dowel, and inner duct installation.

Closely Monitored Issues

- SRC completed LTC testing on the main isolation support pads and has submitted the qualification testing data for review and approval.

Cost Summary

Present Financial Status	Amount
N180 Contractor - Stacy and Witbeck, Inc.	
Original Contract Value	\$ 71,455,950
Change Order Value	\$ 1,781,023
Current Contract Value	\$ 73,236,973
Total Actual Cost (Incurred to date)	\$ 14,942,486
Financial Percent Complete:	20.4%
Physical Percent Complete:	17.0%
Authorized Contingency	\$ 10,718,393
Contingency Drawdown	\$ 1,781,023
Contingency Index	1.23



Area 1 - NB temporary tunnel ventilation system is installed and connected. Awaiting temporary power feed to make the final connection.

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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:	Shoreline South/145th, Shoreline North/185th, Mountlake Terrace, Lynnwood City Center
Systems:	Signals, traction power, and communications (SCADA).
Budget:	\$488.4 Million Pre-baseline Budget; excludes Construction (Year of Expenditure Dollars)
Phase:	Final Design
Const. Starts:	2018
Service:	Mid 2024



Map of Lynnwood Link Extension Alignment.

Key Project Activities

- L200 60% civil design submitted in February 2017; reviews completed in March 2017.
- L300 60% civil design submitted in March 2017; reviews completed in April 2017.
- L800 60% systems design submitted in June 2017; reviews completed in August 2017.
- Design Advancement paused in July 2017 to pursue cost reduction strategies.
- Conducted Cost Reduction reviews with 3rd party jurisdictions in September 2017.
- WSDOT completed engineering review of L200 Temporary Construction Air Space Lease (TCAL) and Air Space Lease (ASL); review began on August 7, 2017; L300 submitted to WSDOT on July 3, 2017.
- Continuing right of way acquisition and pre-construction planning.

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.

Commitment and Actuals under Construction Phase is related to Construction Permits for early demolition work associated with ROW Property Acquisitions.

Cost Summary by Phase

Project Phase	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$88.3	\$19.9	\$19.8	\$88.3	\$0.0
Preliminary Engineering	\$42.0	\$39.1	\$39.1	\$42.0	\$0.0
Final Design	\$111.5	\$82.7	\$50.1	\$111.5	\$0.0
Construction Services	\$104.9	\$19.6	\$8.5	\$104.9	\$0.0
3rd Party Agreements	\$17.4	\$7.4	\$3.3	\$17.4	\$0.0
Construction	\$0.5	\$0.2	\$0.2	\$0.5	\$0.0
Light Rail Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$123.8	\$82.6	\$78.2	\$123.8	\$0.0
Total	\$488.4	\$251.5	\$199.2	\$488.4	\$0.0

Cost Summary by SCC

SCC Element	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
20 Stations	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
30 Support Facilities	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
40 Sitework & Special Conditions	\$0.5	\$0.2	\$0.2	\$0.5	\$0.0
50 Systems	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Subtotal (10 - 50)	\$0.5	\$0.2	\$0.2	\$0.5	\$0.0
60 Row, Land	\$123.8	\$82.6	\$78.2	\$123.8	\$0.0
80 Professional Services	\$364.1	\$168.7	\$120.8	\$364.1	\$0.0
90 Unallocated Contingency	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Total (10 - 90)	\$488.4	\$251.5	\$199.2	\$488.4	\$0.0

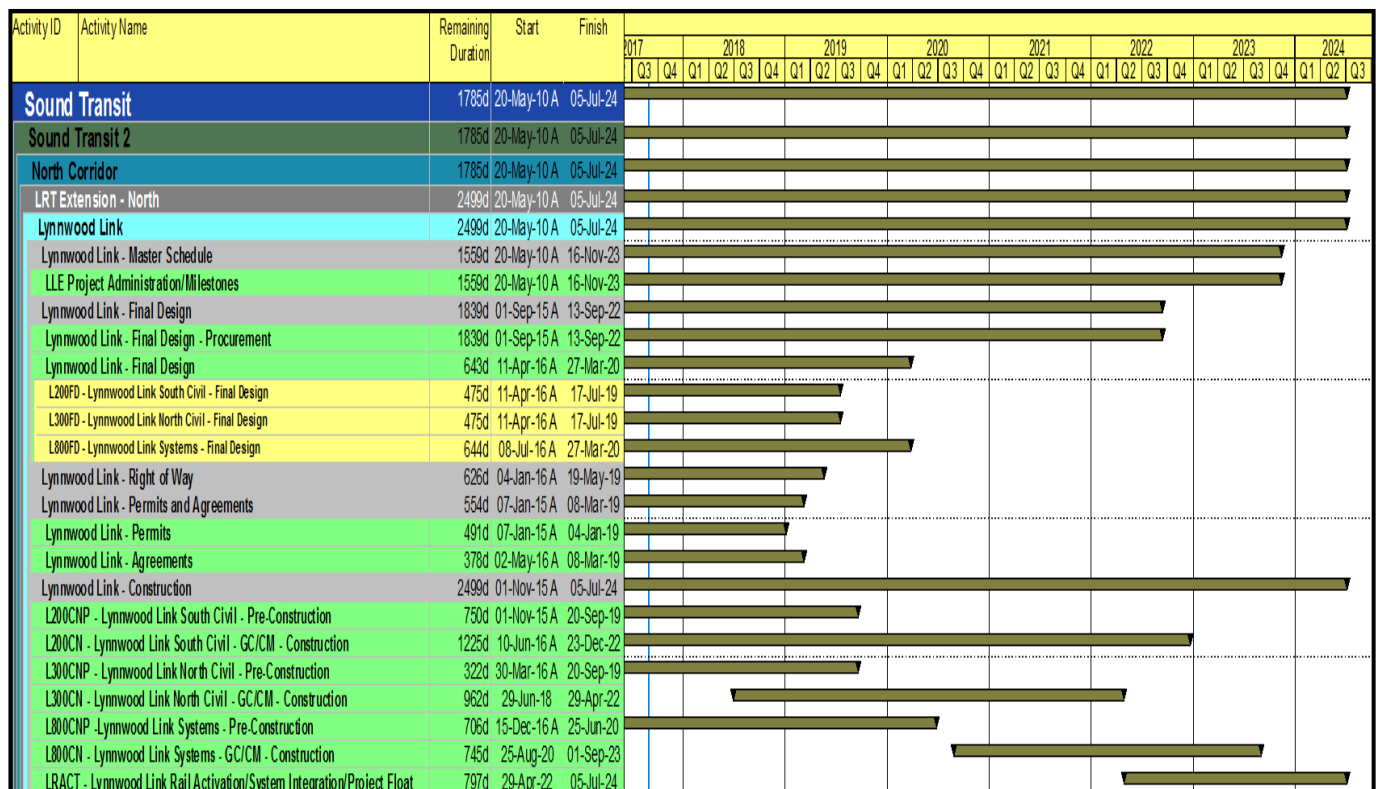
Risk Management

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 last Lynnwood Link Quarterly Risk Review Workshop was held in May 2017. The project completed a full quantitative risk assessment workshop in November 2017, and anticipates draft results in January 2018.

Project Schedule

The project schedule is shown below.



Right-of-Way

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

Lynnwood Link Extension Property Acquisition Status								
Line Section	Board Approved	Offers Made/In Negotiations	Signed Agreements	Possession and Use	Admin Settlement	Closings to date	Relocations Required	Parcels Vacated
L200— South Segment	208	76	1	1	0	50	179	80
L300—North Segment	55	12	0	1	0	10	23	4
Total*	263	88	1	2	0	60	202	84

*Note— number of totals may differ from other reports due to the timing of reporting periods.

L200 –Northgate to NE 200th Street Parcels

18 additional Parcels approved by the Board; 8 additional parcels closed; 5 additional relocation identified; 2 additional relocations vacated.

L300– NE 200th Street to Lynnwood Transit Center

12 additional Parcels approved by the Board; 1 additional parcel is closed.

Sound Transit Board Actions

Board Action	Description	Date
M2017-160	Execute an amendment to the Transitway Agreement with the City of Seattle to grant Sound Transit non-exclusive use of light rail transitway within City right-of-way to construct, operate, maintain, and own a light rail transit system for the Lynnwood Link Extension.	Dec 21
M2017-162	Submit a Full Funding Agreement application to the FTA for the Lynnwood Link Extension project, including the project's proportionate share of the cost of the Operations and Maintenance Facility-East Project and the LRV Fleet Expansion project.	Dec 21

Community Outreach

- Continued contacting various property owners regarding survey work on their property.
- Staff met with the pastor of the Church of the Nazarene to review project plans near the church, discuss impacts and look ahead to construction and restoration with follow-up meetings scheduled for upcoming months.
- Future updates regarding Community Outreach will be provided in the Sound Transit website:
<https://www.soundtransit.org/Projects-and-Plans/Find-a-Project>.

Civil Final Design Overview

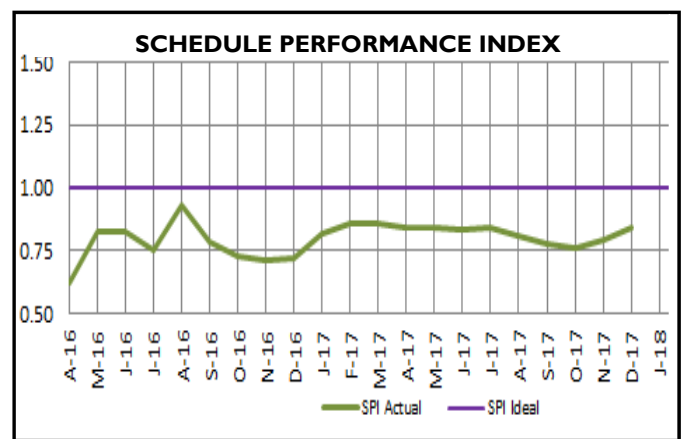
Sound Transit executed a professional services contract with HNTB Jacobs in April 2016 to perform Civil Final Design Services.

Civil Final Design Activities

- Cost Savings Ideas Development completed.
- Civil Final Design activities have restarted on October 9, 2017.
- Current focus is on incorporating costs savings ideas, advancing concepts to achieve concurrence and lock the track alignment and guideway column locations so follow on disciplines (Systems Final Design) can resume design activities.

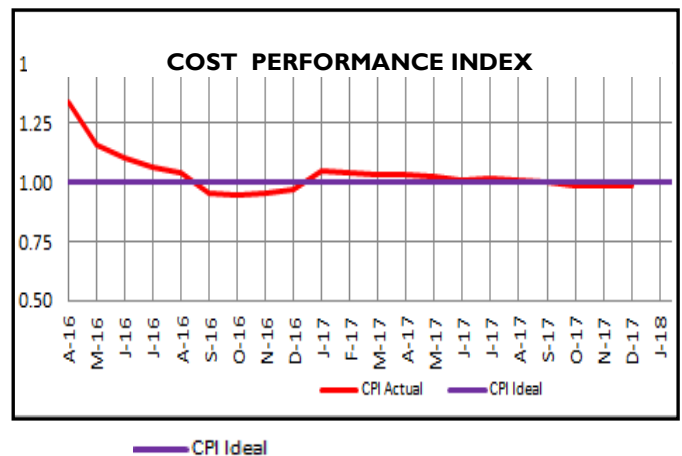
Civil Final Design Schedule Performance Index

The cumulative Schedule Performance Index (SPI) trends at 0.84 through December 2017, which means that cumulative work accomplished is less than work originally planned. The Civil Final Design cost savings ideas development was completed on October 9, 2017. While schedule performance is trending negatively, it is expected to increase over the next couple of reporting periods as civil design activities have restarted and cost savings ideas will be incorporated into the project design.



Civil Final Design Cost Performance Index

\$46.8M of the total contract amount, 65%, has been spent through December 2017. The Civil Final Design percent complete is 64%, with an earned value of \$45.9M. The cumulative Cost Performance Index (CPI) through December is 0.98 indicating that expenditures are slightly higher than the earned value of work performed.



Final Design Performance	Cumulative To-date
Amount Invoiced	\$46.8M
% Spent	65%
Earned Value	\$45.9M
% Complete	64%
SPI	0.84
CPI	0.98

Systems Final Design Overview

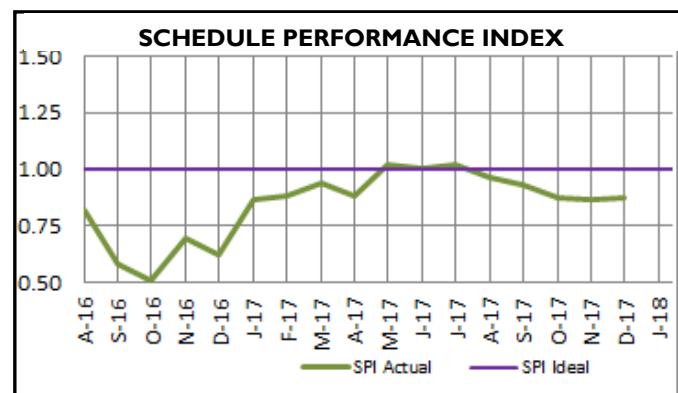
Sound Transit executed a professional services contract with LTK Engineering in July 2016 to perform Systems Final Design Services.

Systems Final Design Activities

- L800 60% cost estimate submitted to Sound Transit on August 25, 2017.
- L800 60% cost estimate reconciliation was completed on September 27, 2017.
- Systems Design activities resumed in October 2017 to support the Civil design evaluation and cost reduction strategies; the Systems Final Design contract will fully resume work in January 2018 to advance the 90%.

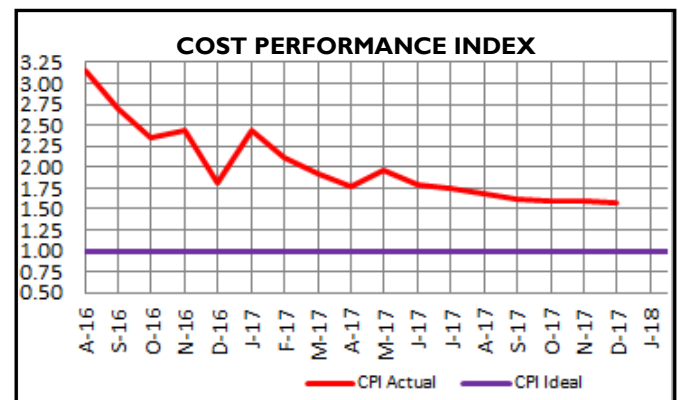
Systems Final Design SPI

The cumulative Schedule Performance Index (SPI) trends at 0.87 through December 2017, which means that cumulative work accomplished is behind the work originally planned. This is directly attributed to the design hold due to cost savings ideas development. As the Systems Final Design team is provided updated civil information, it is expected that SPI will start to trend positive as design ramps back up.



Systems Final Design Cost Performance

\$2.8M of the total contract amount, 30%, has been spent through December 2017. The Systems Final Design percent complete is 47%, with an earned value of \$4.5M. The cumulative Cost Performance Index (CPI) through December is 1.57 indicating that expenditures are significantly lower than the earned value of work performed.



Final Design Performance	Cumulative To Date
Amount Invoiced	\$2.8M
% Spent	30%
Earned Value	\$4.5M
% Complete	47%
SPI	0.87
CPI	1.57

Civil Construction Management Overview

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

Civil Construction Management Activities

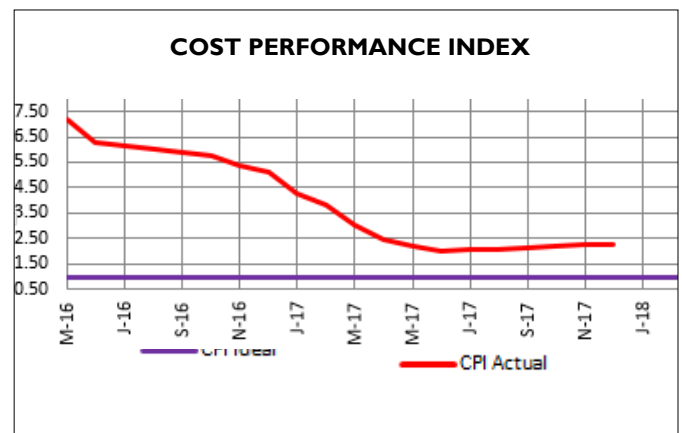
- Coordinating meetings with design, GC/CM, and ST teams.
- Coordination on various preconstruction activities including cost estimates, schedule, and constructability.
- Coordinating GC/CM review of 60% submittals and Project wide effort towards value engineering.

Civil Construction Management Schedule Performance Index

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 CM Cost Performance Index

\$3.2M of the total contract amount, 42%, is spent through December 2017, with an earned value of \$7.2M. The cumulative Cost Performance Index (CPI) through December is 2.28; indicating significantly lower costs than expected on the contract. The Consultant assumed more support staff would be required early in the schedule and that has not been the case, leading to a high CPI. Planned Values will be re-aligned with an extension to the Pre-Construction Schedule; CPI is anticipated to trend closer to 1.0 in the future.



Civil CM Performance	Cumulative To-date
Amount Invoiced	\$3.2M
% Spent	42%
Earned Value	\$7.2M
CPI	2.28

GC/CM Pre-Con Overview - L200 Northgate to NE 200th Street

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.

L200 GC/CM Pre-Con Activities

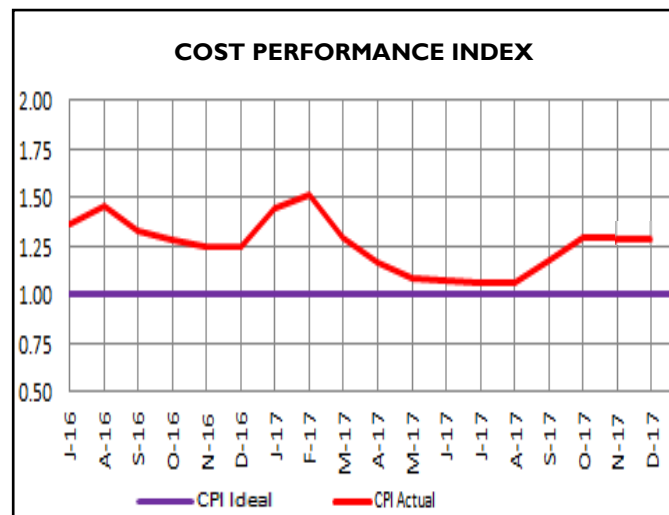
- Coordinating meetings with design, CM, and ST teams.
- Progress on various preconstruction activities including cost estimates, schedule, and constructability.
- Project wide effort towards value engineering.

L200 GC/CM Pre-Con Schedule Performance Index

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.

L200 GC/CM Pre-Con Cost Performance Index

\$2.8M of the total contract amount, 56%, is spent through December 2017, with an earned value of \$3.7M. The cumulative Cost Performance Index (CPI) through December is 1.30; indicating actual costs are lower than planned. Planned Values will be re-aligned with an extension to the Pre-Construction Schedule; CPI is anticipated to trend closer to 1.0 in the future.



L200 GC/CM Performance	Cumulative To-date
Amount Invoiced	\$2.8M
% Spent	56%
Earned Value	\$3.7M
CPI	1.30

GC/CM Pre-Con Overview - L300 NE 200th St. to Lynnwood Transit Center

Sound Transit executed a professional services contract with Skanska in October 2016 to perform GC/CM Pre-Construction Services for the L300 segment.

L300 GC/CM Pre-Con Activities

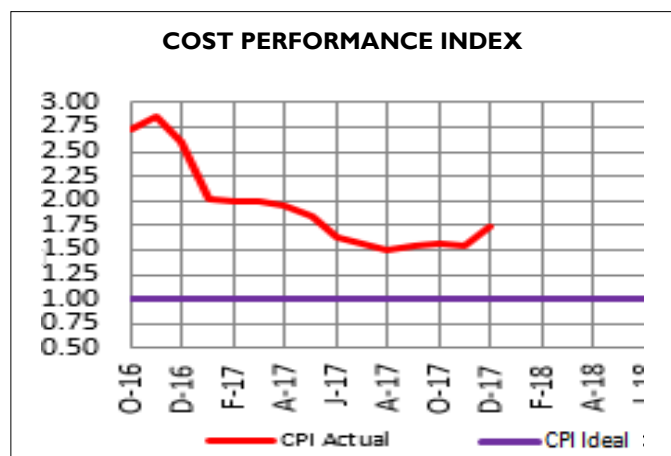
- Coordinating meetings with design, CM, and ST teams.
- Progress on various preconstruction activities including cost estimates, schedule, and constructability.
- Project wide effort towards value engineering.

L300 GC/CM Pre-Con Schedule Performance Index

Driving the L300 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.

L300 GC/CM Pre-Con Cost Performance Index

\$2.2M of the total contract amount, 42%, has been spent through December 2017, with an earned value of \$3.9M. The cumulative Cost Performance Index (CPI) through December is 1.75; indicating actual costs are lower than planned. Planned Values will be re-aligned with an extension to the Pre-Construction Schedule; CPI is anticipated to trend closer to 1.0 in the future.



L300 GC/CM Performance	Cumulative To-date
Amount Invoiced	\$2.2M
% Spent	42%
Earned Value	\$3.9M
CPI	1.75

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Link Light Rail

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

Scope: The I-90 Two-Way Transit and HOV Operations (Stage 3) project provides 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, and the installation of screening on the shared-use pathway on the I-90 floating bridge.

Budget: \$225.6 Million
Phase: Construction
Construction Start: January 2015
Construction Complete: First Quarter 2018



Since June 2017, the project has provided 24/7 HOV access on I-90 between Seattle, Mercer Island and Bellevue.

Major Contracts

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

Key Project Activities

- *Work outside the tunnels:* Ongoing punch list resolution; clean up and demobilize from work areas; finalize O&M manuals; network redundancy and training simulator testing at Traffic Management Center.
- *Mercer Island Tunnel:* Switchgear and generator testing; ongoing warranty and equipment lists tracking; ongoing punch list resolution; ongoing fire/life safety systems and SCADA programming; network redundancy and tunnel staff training.
- *Mount Baker Ridge Tunnel:* Switchgear and generator programming and testing; fan sequencing; ongoing warranty and equipment lists tracking; ongoing punch list resolution; network redundancy and tunnel staff training.
- Continue Video interface and training simulator programming; ongoing warranty and equipment lists tracking; ongoing punch list resolution; final miscellaneous SCADA testing.
- Continue final Simplex documentation submittals, continue resolving punch list items.

Closely Monitored Issues

While the center roadway turnover to Sound Transit was completed, Substantial Completion continues to slip; achievement of Substantial Completion is anticipated for 1st Quarter 2018, due to the following:

- Challenges continue with network programming tasks for Phase 3 commissioning and Simplex / SCADA video interface and integration. Additional testing is required.

Project Cost Summary

The following tables summarize the cost information for the I-90 Two-way Transit and HOV Operations (Stage 3) project. WSDOT has been several months trailing on their invoice submittal and with a combination of ongoing resolution of commercial issues, has resulted in overstating of cost accrual for the previous period. This current period with better information, ST has adjusted the Total Project Costs down which results in a decreased expenditure of \$891.1K. Tables in millions.

Cost Summary by Phase

Project Elements by Phase	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$3.6	\$3.6	\$2.2	\$2.2	\$3.6	\$0.0
Preliminary Engineering	\$1.5	\$1.5	\$1.5	\$1.5	\$1.5	\$0.0
Final Design	\$22.1	\$22.1	\$18.7	\$18.0	\$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	\$171.9	\$161.6	\$198.3	\$0.0
Total	\$225.6	\$225.6	\$194.4	\$183.4	\$225.6	\$0.0

Cost Summary by SCC

Project Elements by SCC	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
40 Sitework & Special Conditions	\$180.6	\$180.6	\$171.9	\$161.6	\$180.6	\$0.0
80 Professional Services	\$26.3	\$26.3	\$22.5	\$21.8	\$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	\$194.4	\$183.4	\$225.6	\$0.0

Cost Contingency Management

In the table below, the Allocated Contingency includes both WSDOT-controlled construction contingency and the total ST-controlled allocated contingencies.

Contingency Status	BCE		Current Status	
	Amount	% of Total Budget	Remaining Amount	CTG % of Work Remaining
Design Allowance	\$0.0	0.0%	\$0.0	0.0%
Allocated Contingency	\$17.0	7.5%	\$8.1	19.6%
Unallocated Contingency	\$18.7	8.3%	\$18.7	45.2%
Total:	\$35.7	15.8%	\$26.8	64.8%

*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 a portion of WSDOT-controlled contingency & ST-controlled Contingency.*

Project Schedule

Project Milestones for construction are indicated below; changes indicated in red were submitted by WSDOT as anticipated dates, but have not at this time been accepted:

Contract	Final Tunnel Commissioning Complete		Substantial Completion		Center Roadway Turnover		Physical Completion	
	Baseline	Forecast / Actual	Baseline	Forecast / Actual	Baseline	Forecast / Actual	Baseline	Forecast / Actual
I-90 Two-Way Transit & HOV Operations Stage 3	2/16/2017	Q1/2018	2/20/2017	Q1/2018	5/31/2017	6/14/2017 A	5/31/2017	Q1/2018



Testing fire zone systems in Mt. Baker Ridge Tunnel Control Room

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Link Light Rail

East Link Extension

Scope

Limits/Alignment: Fourteen-mile extension from Downtown Seattle to Mercer Island, Bellevue and the Overlake area of Redmond. The extension includes 10 stations along the alignment that includes at-grade, elevated, bridges, new and retro-fitted tunnels.

Stations: Judkins Park, Mercer Island, South Bellevue, East Main, Bellevue Downtown, Wilburton, Spring District/120th, Bel-Red/130th, Overlake Village and Redmond Technology Center (RTC).

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

Budget: \$3.677 Billion (Baseline April 2015)

Schedule: Revenue Service - June 2023

Phase: Construction



Map of East Link Extension Alignment.

Key Project Activities

Seattle to South Bellevue

- *Floating Bridge Retrofit:* Ongoing pontoon wall coring for post tensioning ducts; installation of pipe covers; ongoing deck barrier demo and retrofit; ongoing electrical power modifications.
- *Mercer Island:* Continued utility work and sound wall construction, installation of the overhead catenary line foundations, continue utility work & duct bank installation.
- *D2 Structure & Mt. Baker Tunnel:* Continue construction access and staging; continue core drilling for Pier 2 restraints; continue temporary lighting installation.

South Bellevue to Redmond

- *E320 South Bellevue:* Formed, installed rebars and placed concrete for shaft columns and bent caps. Continued installation of aerial structure large diameter shafts. Continuing on Cement Deep Soil Mixing (CDSM).
- *E330 Downtown Bellevue Tunnel:* Tunneling and excavation has now past the half way point with advances of about 104 feet this period. A total of approximately 1,107 total feet of excavation has been completed to date. Commenced grouting of voids behind the Skyline garage walls.
- *E335 Downtown Bellevue to Spring District:* Completed demolition of the Carriage Hills condominiums, continuing excavation at north portal and continued temporary CMU wall construction, continued with formwork and rebar fabrication for drilled shafts and columns.
- *E340 Bel-Red:* Continuation of commercial utility connections. Completed the new water service for MGI. Continued column transition pours and form work for crossbeams.
- *E360 SR520 to Redmond Technology Center:* Early site construction continued with installation of temporary access roads, protection of existing utilities, sanitary sewer tie-ins, and storm drain utility installation.
- *E750 Systems:* Contractor continues with critical submittal, reviews of plans, components and product designs. Commenced systems interface with civil teams.

Closely Monitored Issues

- Completing remaining property acquisitions and easements.
- Timely submissions and issuance of construction permits.
- With ongoing construction in all segments, construction safety and environment compliance are priorities.
- Unidentified commercial utility connections within roadways and private properties continues to be challenging.
- Completing the stations' procurements for Downtown Bellevue to Spring District.

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 Estimated Final Cost (EFC) continues to be projected at approximately \$3.68B. This period's expenditure is about \$37.9M, increasing the total project cost from \$994.0M to \$1.032B. This period's project commitments increased slightly to \$2.82B from last month's \$2.81B.

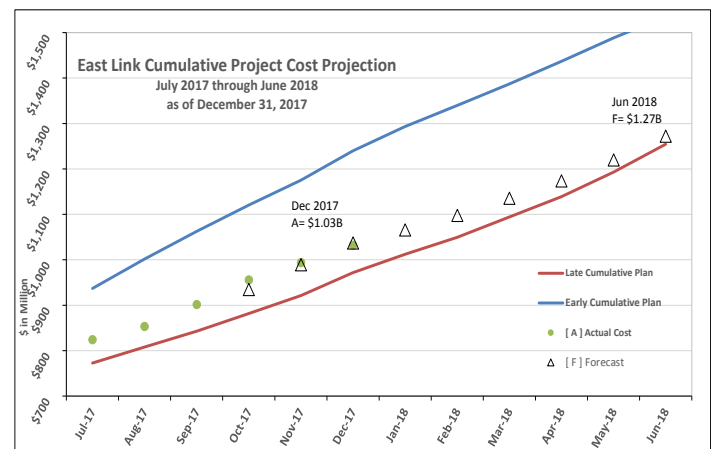
Cost Summary by Phase

Project Phase	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$186.2	\$186.2	\$65.6	\$65.6	\$186.2	\$0.0
Preliminary Engineering	\$55.9	\$55.9	\$54.8	\$54.7	\$55.9	\$0.0
Final Design	\$283.0	\$283.0	\$244.6	\$200.5	\$283.0	\$0.0
Construction Services	\$257.5	\$257.5	\$196.8	\$45.3	\$257.5	\$0.0
3rd Party Agreements	\$52.2	\$52.2	\$38.3	\$14.3	\$52.1	\$0.0
Construction	\$2,544.3	\$2,544.3	\$1,960.3	\$396.8	\$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	\$255.9	\$254.7	\$298.2	\$0.0
Total	\$3,677.2	\$3,677.2	\$2,816.4	\$1,031.9	\$3,677.2	\$0

Cost Summary by SCC

SCC Element	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$744.6	\$747.6	\$879.8	\$192.9	\$964.9	(\$217.3)
20 Stations	\$397.7	\$397.7	\$263.0	\$50.1	\$432.3	(\$34.6)
30 Support Facilities	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
40 Sitework & Special Conditions	\$808.5	\$806.0	\$452.0	\$127.4	\$589.8	\$216.2
50 Systems	\$353.8	\$353.8	\$344.2	\$20.6	\$328.4	\$25.4
Construction Subtotal (10 - 50)	\$2,304.6	\$2,305.1	\$1,939.0	\$391.0	\$2,315.5	(\$10.3)
60 Row, Land	\$288.5	\$288.5	\$255.9	\$254.6	\$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	\$899.7	\$621.5	\$386.3	\$889.1	\$10.6
90 Unallocated Contingency	\$182.9	\$181.0	\$0.0	\$0.0	\$181.2	(\$0.2)
Total (10 - 90)	\$3,677.2	\$3,677.2	\$2,816.4	\$1,031.9	\$3,677.2	(\$0.0)

The East Link cost projection continues to progress within the planned expenditure as construction activities continue to pickup. This period's project expenditure topped out at approximately \$37.9M where Construction Phase is responsible for almost 78% or \$29.7M of December's cost. Total project cost incurred to date has now surpassed the \$1B mark to which about \$397M was recorded in the Construction Phase. The project cost will continue to pick up and is predicted to increase to about the \$1.3B level by June 2018, reflecting a continued active construction activities through the winter and spring.



Risk and Contingency Management

Risk Management

The Risk 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. Sound Transit (ST) continuously monitors 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, ST commenced the quarterly risks update for each of the major contract package. ST included participation of construction management consultants and construction contractors in its risks management program.

Contingency Status

East Link project budget was baselined on April 2015 with a total contingency of \$795.9M. At the end of December 2017, excepting the E335 Stations, all major construction contracts have been procured, the total contingency balance stands at \$472.9M (previously \$473.2M). The current contingency balance is consistent with the project's planned contingency drawdown.

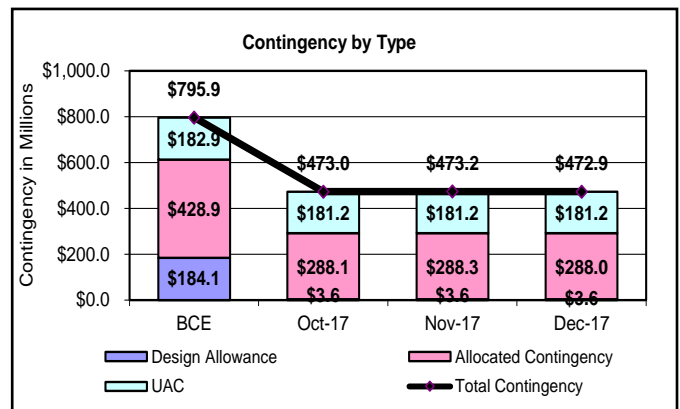
Design Allowance (DA) was established to account for unquantified scope at the time of the cost estimate. DA is unchanged this period with a balance at \$3.6M. DA balance is expected to be fully drawn when all construction scope are executed.

Allocated Contingency (AC) is used to address risks, complexity and unforeseen conditions during the execution of work, including procurement. This period, AC decreased by \$0.3M from \$288.3M to \$288.0M. This net decrease is due to construction change orders and some minor design support during construction contract changes.

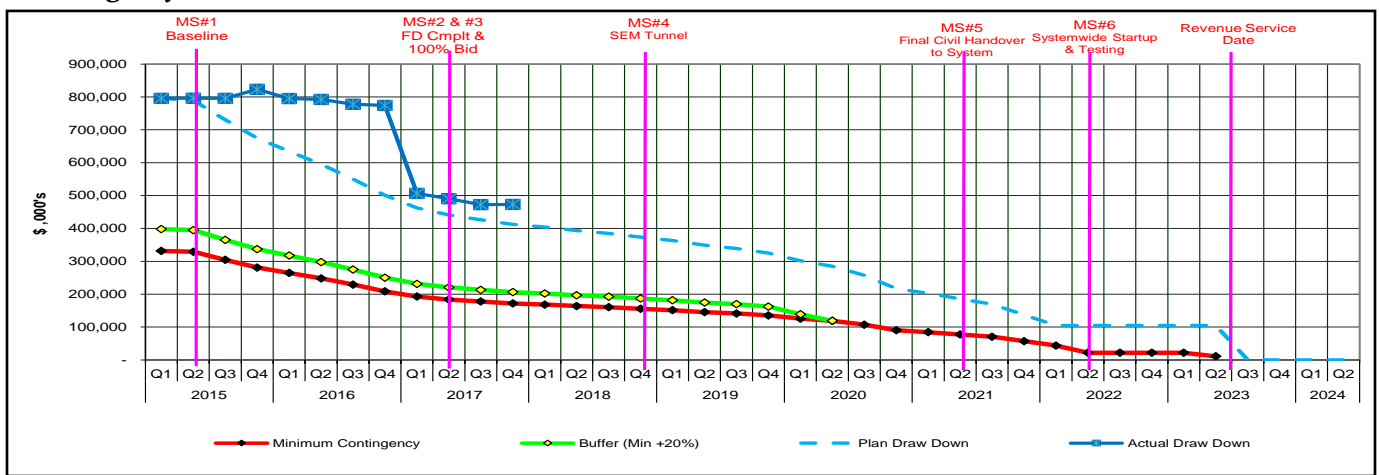
Unallocated Contingency (UAC) is used to address general project-wide cost risks and uncertainties. The UAC balance of \$181.2M continues to be stable compared to the initiation balance of \$182.9M at Baseline Cost Estimate (BCE).

Contingency Status	BCE		Current Status	
	Amount	% of Total Budget	Remaining Amount	% of Work Remaining
Design Allowance	\$184.1	5.0%	\$3.6	0.1%
Allocated Contingency	\$428.9	11.7%	\$288.0	10.7%
Unallocated Contingency	\$182.9	5.0%	\$181.2	6.8%
Total:	\$795.9	21.6%	\$472.9	17.6%

Dollar figures on this page are displayed in millions.



Contingency Drawdown (Quarter Ending December 2017)



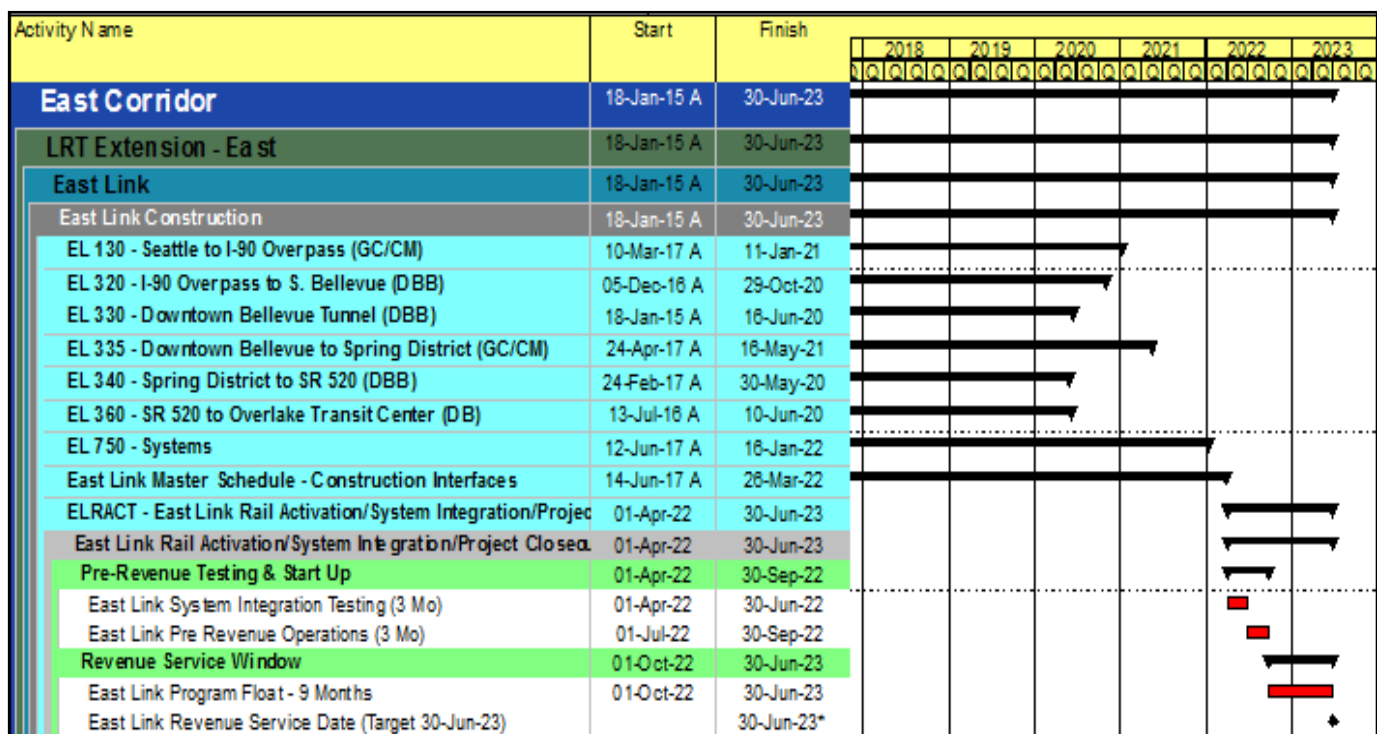
Project Schedule

Baseline schedules have been approved for all contracts and current updates have been incorporated into the Integrated Master Schedule below.

E130 continued installing reaction frames in the floating bridge pontoons, and continued civil work at Mercer Island Station and utility relocations on the eastern part of the project. E320 completed a number of shafts for the S. Bellevue parking garage, and continued utility relocations and clearing & grubbing in advance of the soil nail wall at 112th Ave NE. E330 continues to make good progress in tunneling and is currently forecast to complete ahead of baseline. E335 continued placing columns for the aerial guideway, placing retaining walls, and excavating the trench at 120th-124th. They are preparing to relocate utilities at the north portal. E340 continues relocating utilities and placing columns. E360 completed early utility work at the stations and began retaining walls at OTC, and has started drilling shafts. E750 Systems contractor continued product and component designs. They will complete this phase of work within the next two years and will begin physical construction in Northgate Link before commencing on East Link. Systems construction in East Link is anticipated to start on the eastern segment of E130 in Summer of 2019.

This period's schedule graphic reflects the October update for E320. There is an ongoing effort to bring the Contractor's schedule into compliance with ST specifications. Work continues to progress and an updated schedule is anticipated by the January cycle.

All contracts are forecast to complete on or before target. Revenue Service is forecast in June 2023.



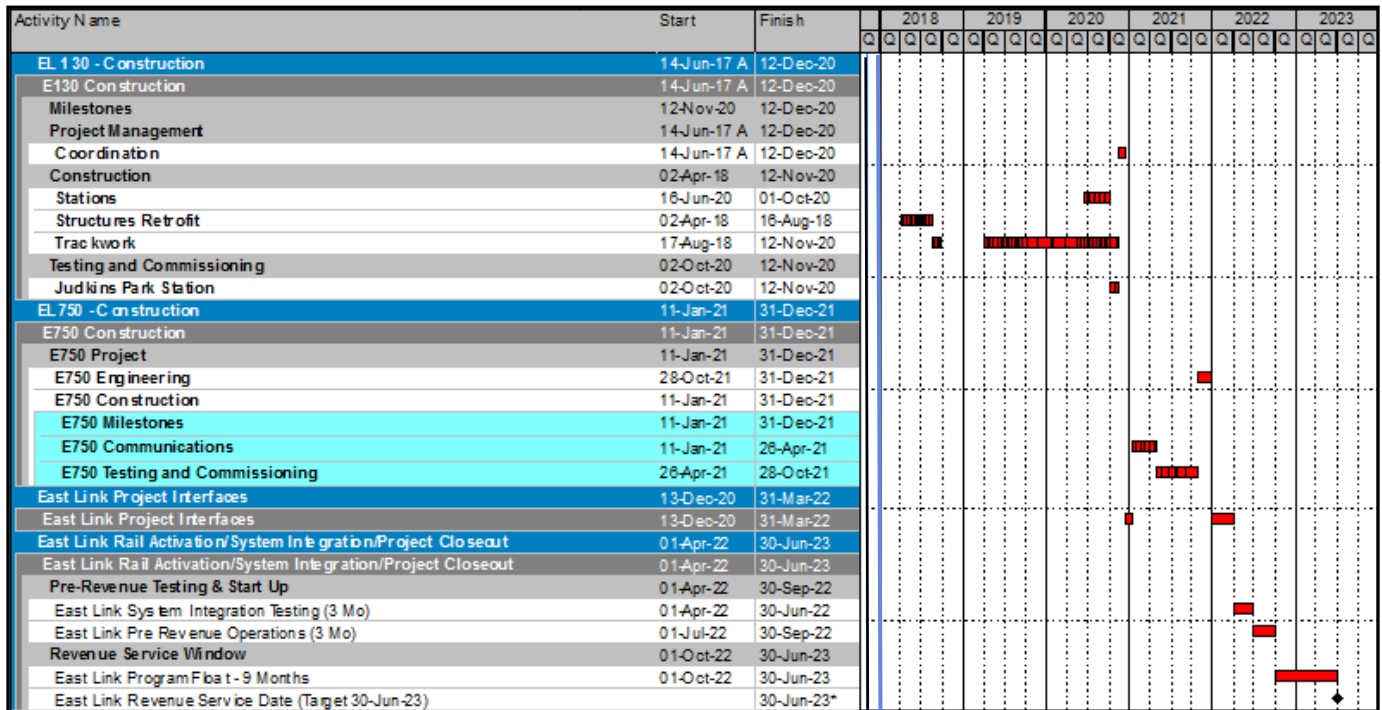
Link Light Rail

East Link Extension



Critical Path Analysis

The East Link critical path is currently running through the handover of the I-90 corridor from the E130 Contractor to the E750 Systems Contractor. The critical path for E130 is driven by the pontoon post-tensioning which is affected by the restricted work seasons on the floating bridge.



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 result in owner and tenant residential and commercial relocations. Market value trends in both residential and commercial properties are exhibiting strong upward pressure. 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. See Right-of-Way program status in the table below.

Several of the remaining properties needed for construction are City of Bellevue properties committed in the Memorandum of Understanding. The ST/City of Bellevue Steering Committee consisting of senior staff are collaborating to ensure timely transfer of these property rights consistent with the project schedule and priorities.

East Link Extension Property Acquisition Status								
Line Section	Board Approved	Offers Made/In Negotiations	Signed Agreements	Possession and Use	Admin Settlement	Closings to date	Relocations Required	Parcels Vacated
Total	244	236	3	10	0	210	244	203

Note: Number totals may differ from other reports due to the timing of reporting periods.

Right of Way, continued

E130 Seattle to South Bellevue - No new activity.

E320 South Bellevue - Four parcels closed.

E330 Downtown Bellevue - No new activity.

E335 Downtown Bellevue to Spring District - No new activity.

E340 Bel-Red - No new activity

E360 SR 520 to Redmond Technology Center - Three parcels closed.

Construction Safety

Data/ Measure	December 2017	Year to Date	Project to Date
Recordable Injury/Illness Cases	0	13	13
Days Away From Work Cases	0	1	1
Total Days Away From Work	0	2	2
Restricted or Modified Work Cases	0	8	8
Total Days Restricted or Modified Work	91	233	233
First Aid Cases	1	26	30
Reported Near Mishaps	13	79	92
Average Number of Employees on Worksite	830	-	-
Total # of Hours (GC & Subs)	96,539.5	666,616	702,453
OSHA Incident Rates	Monthly Average	Year to Date	Project to Date
Recordable Injury Rate	0.00	3.90	3.70
DART (Days Away, Restricted or Modified) Rate	0.00	2.70	2.56
<i>Recordable National Average</i>	<i>3.50</i>	<i>3.50</i>	<i>3.50</i>
<i>DART National Average</i>	<i>2.00</i>	<i>2.00</i>	<i>2.00</i>
<i>Recordable WA State Average</i>	<i>7.00</i>	<i>7.00</i>	<i>7.00</i>
<i>DART WA State Average</i>	<i>3.90</i>	<i>3.90</i>	<i>3.90</i>

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

Sound Transit Board Actions

Board Action	Description	Date
	None to report.	

Environmental

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

Community Outreach

- Developing the 2018 Public Involvement Plans for E130 Seattle to South Bellevue.
- Preparing presentation for Mercer Island High School visit on January 24th.
- Attended the I-90 service change meeting with King County Metro and SDOT.
- ST partnered with Bellevue Downtown Association and presented “Rail and Ice” at the Bellevue Downtown Ice Arena for neighborhoods impacted by the East Link construction; approximately 65 people attended to have fun and get info about the project.
- Distributed construction alerts to inform travelers of full closure on I-405.
- Distributed alerts for nighttime closures on NE 136th Place and closures on NE 130th and 134th avenues.
- Sent project alert announcing a new park and ride option served by ST 550 which will open in early January 2018.
- *Future updates regarding Community Outreach will be provided in the Sound Transit website:*
<https://www.soundtransit.org/Projects-and-Plans/Find-a-Project>.

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 and Bellevue Way SE. [Design-bid-build]

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: See following pages under Contract E130.

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

Status: Contractor continues earthwork, sheet piling along the slough, trenching and ductbank work along Bellevue Way SE, drilled shafts in the park and ride and advance utility relocation.

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

Status: See following pages under Contract E330.

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

Status: See following pages under Contract E335.

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

Status: See following pages under Contract E340.

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

Status: See following pages under Contract E360.

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

Status: Contractor continues with critical submittal, reviews of plans and component and product designs.

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

Current Progress

D2 Structure & Mt. Baker Tunnel: Continue construction access and staging; continue core drilling for Pier 2 restraints; continue temporary lighting installation.

Floating Bridge Retrofit: Ongoing pontoon wall coring for post tensioning ducts, installation of Hawse pipe covers; ongoing deck barrier demo and retrofit; ongoing electrical power modifications.

Mercer Island: Ongoing utility work and sound wall construction in the Mercer Island Station vicinity; installation of overhead catenary line foundations; continue utility work & duct bank installation.

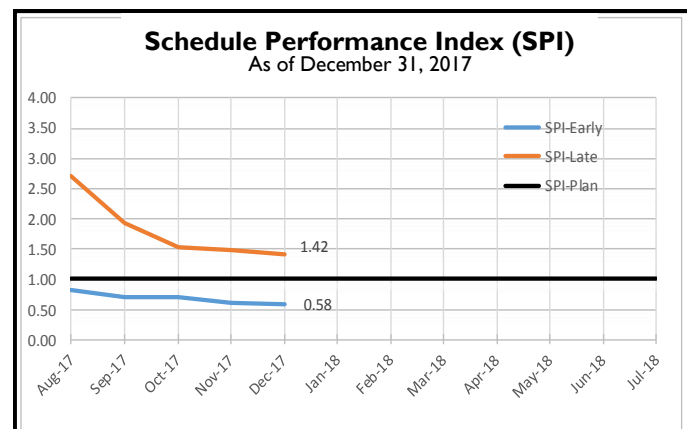
Schedule Summary

The primary critical path for this project goes through the floating bridge pontoons' Post-tensioning Retrofit work, constrained by the winter restricted work window; no work shall occur on the floating bridge from October 1, 2017 through March 31, 2018. The winter restricted work window is currently in effect, so all large-scale construction on the floating bridge deck has ceased until Spring 2018. The Contractor continues working inside the Pontoons to prepare for installation of post-tensioning strands. Civil work is ongoing at Mercer Island Station; utility relocations are underway on the East Channel Bridge; and advanced preparation continues for upcoming seismic work on the D2 roadway.

Activity Name	Start	Finish	2018				2019				2020			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
E130 Construction	20-Mar-17 A	11-Jan-21												
Milestones	01-Jul-19	11-Jan-21												
Major Project Complete Milestones	01-Jul-19	11-Jan-21												
16. MS#02 - Substantial Completion Mercer Island Sta to West Mercer Island Lid (29-Jan-20)		01-Jul-19*												
16. MS#01 - Substantial Completion Mercer Island Station to East End Of Project (17-Jul-19)		17-Jul-19*												
16. MS#03 - Substantial Completion of IDS Conversion (27-Feb-20)		23-Feb-20*												
16. ST E130 Work Complete		12-Nov-20												
16. MS#04 - Substantial Completion All Work (12-Dec-20)		12-Dec-20*												
16. Acceptance		11-Jan-21												
Construction	20-Mar-17 A	12-Nov-20												
Preliminary Activities	03-Apr-17 A	25-Jun-20												
Sitework	23-Aug-17 A	28-Oct-18												
Demolition	20-Jul-17 A	21-Dec-18												
Tunnel Modifications	18-Sep-17 A	14-Jun-19												
Stations	15-Sep-17 A	01-Oct-20												
OCS Bases/Frames	02-Jan-18	10-Aug-20												
Civil/Utilities	05-Jul-17 A	25-Jun-20												
Electrical	20-Mar-17 A	27-Jul-20												
Structures Retrofit	20-Mar-17 A	10-Nov-20												
Trackwork	02-Apr-18	12-Nov-20												
Systems	26-Jun-17 A	02-Nov-20												
IDS Modification	16-Sep-19	23-Feb-20												

Schedule Performance Index

This period, the SPI early is 0.58, SPI late is 1.42. The early index indicates that the Contractor is behind their early finish plans; meanwhile, the late index shows that the Contractor is on target with their late finish plan. These figures support the fact that the Contractor has encountered challenges in the initial phases of the post-tensioning scope and has proceeded with only half of the reaction frames last Fall for the post tensioning work in the pontoons. Contractor anticipates loading the remaining reaction frames into the pontoons during Spring and completing post tensioning work in Summer 2018.



Link Light Rail East Link Extension - Construction

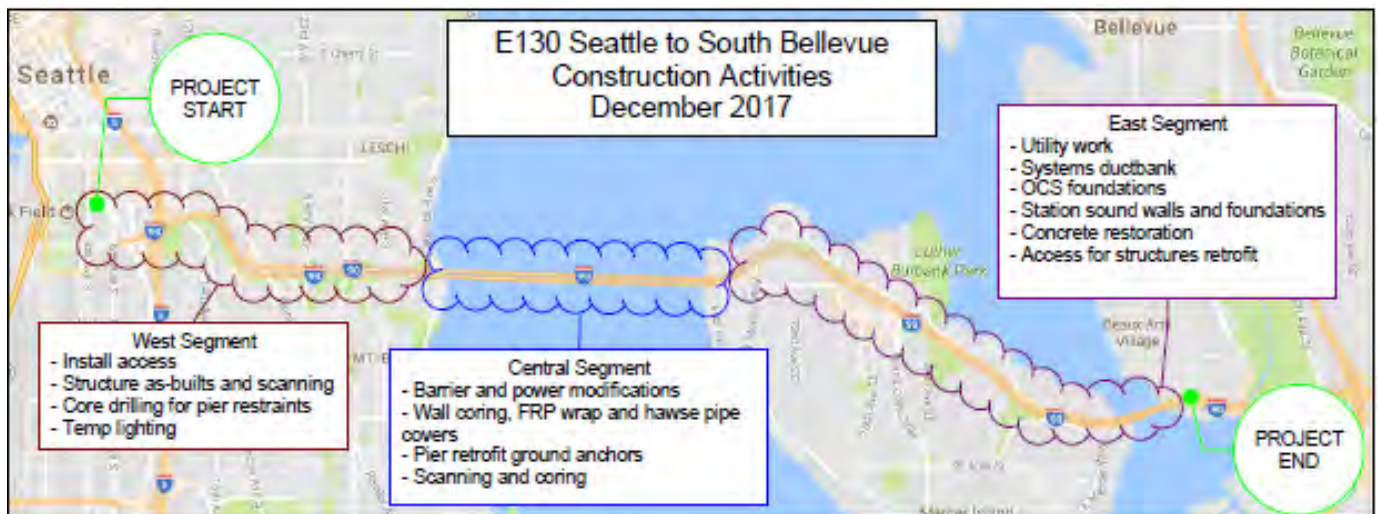
Next Period's Activities

- *West Side:* Continue survey & layout of utility work at Judkins Park Station; continue core drilling for Pier 2 restraints; continue temporary lighting installation.
- *HMH Floating Bridge:* Continue preparation work for post-tension scope - layout and coring of pontoon interior walls.
- *East Side:* Continue layout of deviator blocks in East Approach structure for PT; continue X-Ray/GPR scanning.

Closely Monitored Issues

- Various methods to verify the location of post-tensioning are being discussed with the Contractor and WSDOT.

E130 Construction Activities



Cost Summary

Present Financial Status	Amount
E130 Contractor - Kiewit-Hoffman, East Link Constructors	
Original Contract Value (includes Phase 2 MACC Negotiated)	\$665,000,000
Change Order Value:	\$1,020,000
Current Contract Value:	\$666,020,000
Total Actuals to Date:	\$88,577,777
Financial Percent Complete:	13.3%
Physical Percent Complete:	13.3%
Authorized Contingency:	\$46,660,541
Contingency Drawdown:	\$1,020,000
Contingency Index:	6.8



Coring interior pontoon wall for post-tensioning strand installation.

Contract E330 – Downtown Bellevue Tunnel

Current Progress

South Portal: The Contractor continued tunneling throughout December and excavation progressed approximately 104 feet this period, which is approximately 1,107 total feet of excavation to date. Good ground conditions being encountered decreases the need for ground spiles and has helped maintain the increased excavation rate. Hauling of spoils offsite continues.

North Portal: Started grouting of voids adjacent to the Skyline building. Completed drilling the grout holes on garage levels P5, P4 and working on drilling the holes on P3. Completed grouting on P5 level.

Between Portals: Continue to install and monitor instrumentation along tunnel alignment.

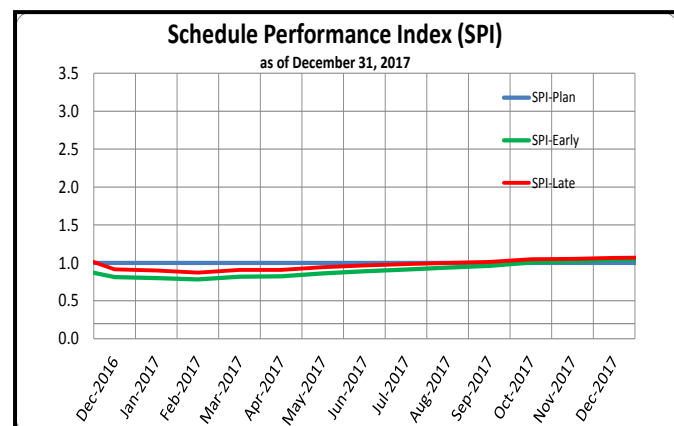
Schedule Summary

The critical path for this contract follows the tunnel excavation and the completion of the South Portal structure. Tunneling continues to exceed estimated production rates. The Contractor's cumulative rate is 4.27 LF/Day. The Contractor is now forecast to finish excavating in December 2018 and to achieve Substantial Completion on time. Void grouting work at the Skyline building continues to progress adequately.

Activity Name	Start	Finish	2018				2019				2020
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
E330 Construction	15-Dec-15 A	18-May-20									
CONSTRUCTION	15-Dec-15 A	18-May-20									
MILESTONE CONSTRUCTION EASEMENT S	15-Dec-15 A	18-May-20									
MILESTONES	15-Dec-15 A	18-May-20									
CALCULATED MILESTONES	15-Dec-15 A	18-May-20									
L-NTP	15-Dec-15 A										
NTP	08-Feb-16 A										
MLST 1 - Acceptance of the 110th Ave Controlled Low Strength Material Work		14-Oct-16 A									
MLST 2 - Acceptance of CO #008 Work		14-Oct-16 A									
MLST 3 - Substantial Completion of all Work from Station EB 542+84.52 to Station EB 562		07-Dec-19									
MLST 4 - Substantial Completion Total Contract		18-May-20									
MOBILIZATION	08-Feb-16 A	18-Jan-19									
SITEWORK	29-Feb-16 A	18-May-20									
PRECONSTRUCTION	21-Mar-16 A	24-Apr-20									
TRAFFIC CONTROL	25-Mar-16 A	03-Dec-19									
SURVEY & MONITORING	29-Feb-16 A	10-Apr-18									
NORTH PORTAL AREA	13-Jun-16 A	14-Oct-16 A									
SOUTH PORTAL AREA	08-Feb-17 A	08-Apr-17 A									
SKYLINE BUILDING RETROFIT	29-Feb-16 A	18-May-20									
TUNNELING	01-Feb-17 A	12-Nov-19									
EXCAVATION	01-Feb-17 A	19-Dec-18									
FINAL TUNNEL LINING	20-Dec-18	27-Aug-19									
FINAL TUNNEL FINISHES	08-Jul-19	12-Nov-19									
MID TUNNEL	02-Apr-18	31-May-19									
DEMOBE	13-Mar-17 A	05-May-20									

Schedule Performance Index

This period, the SPI early is at 1.04 and the SPI late is at 1.07. The early index indicates that the Contractor continues performing slightly ahead of plan when compared to the baseline schedule. The trend continues moving in the positive direction mainly due to advanced tunnel excavation progress. The good ground conditions encountered to date have allowed for the elimination of spiles which has helped the tunnel progress. This advanced tunneling trend will most likely slow down as the contractor moves into the tapered and expanded excavation zones of the tunnel next month.



Link Light Rail East Link Extension - Construction

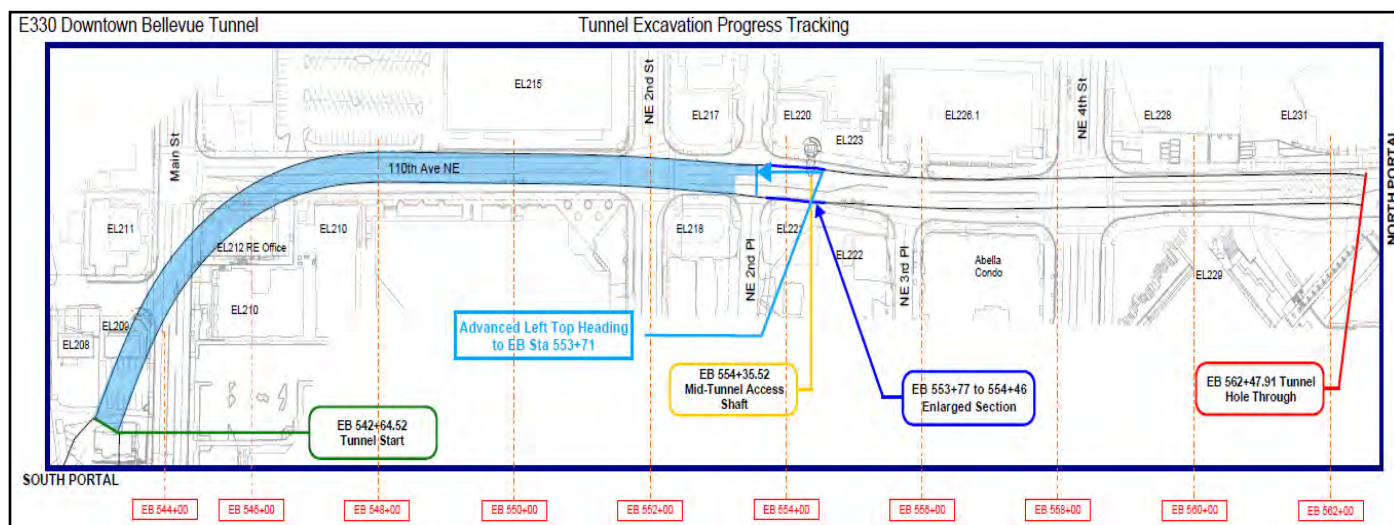
Next Period's Activities

- Continue tunnel excavation and extend ventilation lines. Excavation will continue in earnest next month utilizing a 6 drift heading in lieu of the 3 drift heading as the contractor moves into the tapered and expanded sections of the tunnel.
- Complete the grouting program to address voids behind the East basement walls at the Skyline Building.

Closely Monitored Issues

- The quality and workmanship to use shotcrete in lieu of a formed cast in place system for the final lining in the tapered and enlarged sections, the shaft, and center wall will be critical and is under review. ST is working with the Contractor to develop specifications and mockup requirements.
- Contractor's revised SEM tunnel dewatering plan foregoes surface dewatering in lieu of dewatering only from inside the tunnel. ST will continue monitoring water intrusion in the tunnel as the Contractor is responsible for the cost and time impact to the work.

E330 Tunnel Excavation Progress Tracking



As of 12/31/2017

Cost Summary

Present Financial Status	Amount
E330 Contractor– Guy F Atkinson Construction, LLC.	
Original Contract Value	\$121,446,551
Change Order Value	\$1,314,786
Current Contract Value	\$122,761,337
Total Actual Cost (Incurred to date)	\$60,116,387
Financial Percent Complete:	49%
Physical Percent Complete:	49%
Authorized Contingency	\$12,144,655
Contingency Drawdown	\$1,314,786
Contingency Index	4.5



Skyline Garage void grouting ongoing.

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

Current Progress

Area 1 – South Portal/East Main Station: Complete demolition of the Carriage hill condominiums.

Area 3 – North Portal/City Garage/BTC Station: Continued excavation and lagging installation at the north portal, and commenced the City Hall Parking Garage mass demolition. Continued with formwork and rebar prefabrication for drilled shafts, and columns.

Area 4 – Aerial Guideway: Installed precast girder Spans 1 and 2, including crossing of 112th Ave NE.

Area 5 – Pine Forest Wall construction & Earthwork: Continued with excavation and installation of MSE wall.

Area 6 – 120th-124th Trench/Station: Continued trenching excavation for the 120th Station site.

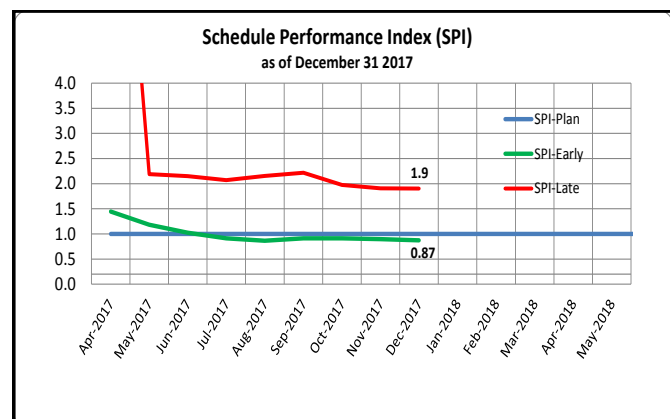
Schedule Summary

There are two primary critical paths for this project—one runs through the North Portal and BTC station work in Area 3, and the other follows access to the SEM tunnel (E330 contract) in Area 2 and goes through the South Portal and the South Portal Electrical Building. That work will not start until mid-2020. Work in December included placing columns for the aerial guideway, demolition and preparation for utility connections at the north portal, and continued civil work for the 120th Station. Award of the station packages is anticipated for early 2018 which will add station construction detail to the schedule.

Activity Name	Start	Finish	2018	2019	2020	2021
E335 Construction	24-Apr-17 A	16-May-21				
Milestones	20-Jul-18	16-May-21				
Contract Milestones	30-Sep-18	16-May-21				
Milestone #1 - Complete North Portal Headwall Temporary Shoring		30-Sep-18*				
Milestone #2 - Complete SDT's for Interface to SCADA		14-Jan-20*				
Milestone #3 - Complete Trackway and Stations for Primary Systems Access - BTC to EOP		13-May-20*				
Milestone #4 - Complete SEM Tunnel Trackwork for Primary Systems Access		16-Jan-21*				
Milestone #5 - Complete All Trackway and Stations for Primary Systems Access		16-Mar-21*				
Milestone #6 - Substantial Completion of all Work		16-May-21*				
Calculated Milestones	20-Jul-18	16-May-21				
E335 Achieves Milestone #1		20-Jul-18				
E335 Achieves Milestone #2		13-Jan-20				
E335 Achieves Milestone #3		16-May-20				
E335 Achieves Milestone #4		16-Jan-21				
E335 Achieves Milestone #5		14-Mar-21				
E335 Achieves Milestone #6		16-May-21				
Construction	24-Apr-17 A	16-Apr-21				
Area 1: E. Main Station to South Portal (531+55 - 538+00)	11-Oct-17 A	16-Apr-21				
Area 2: South Portal to SEM Tunnel (538+00 - 562+47.91)	08-Mar-18	30-Mar-21				
Area 3: North Portal to Aerial Guideway (562+50 - 568+45)	24-Apr-17 A	30-Mar-21				
Area 4: Aerial Guideway (568+45 - 606+59)	24-Apr-17 A	30-Mar-21				
Area 5: Pine Forest to 120th (606+59 - 619+00)	07-Jul-17 A	30-Mar-21				
Area 6: 120th - End of Project (619+00 - 634+99)	01-Aug-17 A	20-Apr-20				
Testing and Commissioning	31-Dec-19	16-Dec-20				

Schedule Performance Index

This period, the SPI early is at 0.87 and the SPI late is at 1.90. The numbers indicate that the Contractor continues behind the early curve, but well ahead of the late curve when compared to the baseline work plan. These figures are supported by the fact that the drilled shaft foundations is lagging which impacts the aerial guideway work, which in turn delays the procurement of the pre-cast girders. These girders will not be cast or delivered to the site until they are ready to be set. Additionally, track material procurements were originally scheduled to be delivered in late 2017, but are now expected later in 2018.



Link Light Rail East Link Extension - Construction

Next Period's Activities

- Continue clearing and grubbing and tree removal at the East Main Station site area
- Continue mass demolition at the City Hall Parking Garage.
- Continue formwork and rebar cage prefabrication for drilled shafts and columns in Areas 3 & 4.
- Continue excavation, lagging, and steel installation for north portal.
- Continue trench excavation in the 120th Station area and begin installation of secant piles.

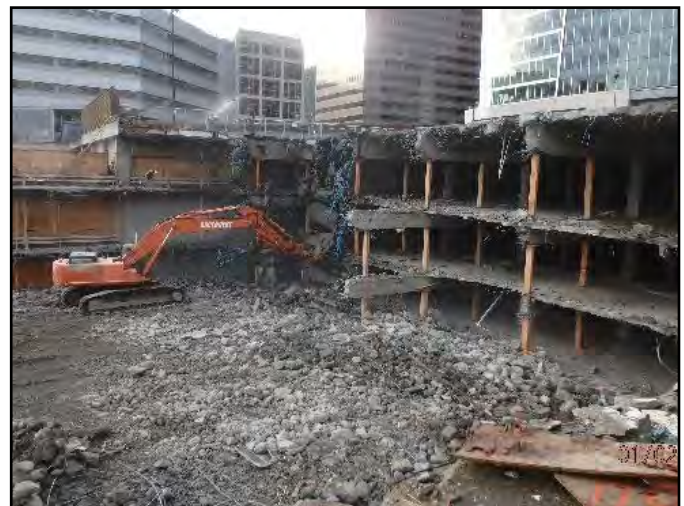
Closely Monitored Issues

- Work continues on the City of Bellevue Zone 1B Project in Area 5, complicating access to wall construction and grading operations. Coordination by the GC/CM with the City's contractor is actively underway, and although minor in nature, prolonged impacts are contributing to inefficiencies in completing work in the area. The Zone 1B Contractor is expected to demobilize by the end of January, and a walkthrough of the site is scheduled to identify any elements that need to be completed prior to assumption of the site by the E335 Contractor.
- The business entity at property EL-243 continues to occupy one of the buildings slated for demolition. Although relocation has been planned, business licensing and permits continue to delay the E335 Contractor's ability to demolish the building. With completion of all other building demolition activities, the demolition subcontractor will need to re-mobilize following the business' relocation. ST continues to assist with relocation efforts.

Cost Summary

Present Financial Status	Amount
E335 Contractor– Stacy & Witbeck/ Atkinson Joint Venture (SWA-JV).	
Original Contract Value*	\$228,398,210
Change Order Value	\$921,412
Current Contract Value	\$229,319,622
Total Actual Cost (Incurred to date)	\$62,306,443
Financial Percent Complete:	27.2%
Physical Percent Complete:	27.2%
Authorized Contingency	\$11,419,911
Contingency Drawdown	\$921,412
Contingency Index	3.4

* Amounts excludes station scope.



City Hall Parking Garage Mass Demolition

Contract E340 – Bel-Red

Current Progress

Contractor continues with transition pour, form work for crossbeams has begun. Excavation for the installation of detention vaults has completed. Completed installation of new water service for EL 310 (MGI). Fire Main installation was also completed. Commencing of the building of forms for retaining walls and remaining commercial connections at various locations.

Schedule Summary

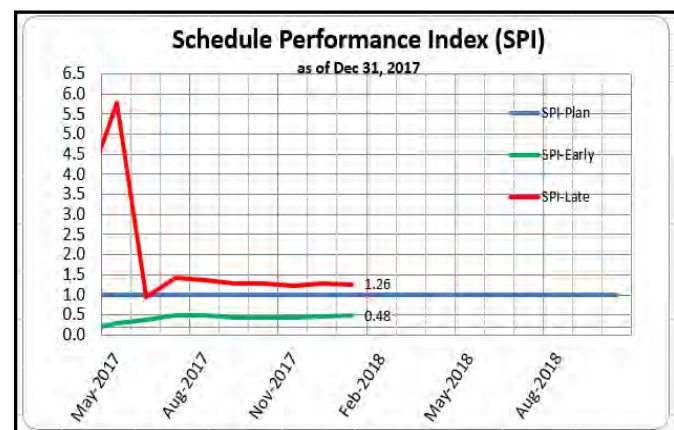
Work in December included utility relocation and placing columns for the aerial guideway.

The critical path of this project now runs through the wet utilities on the west side of 136th, the 136th utility crossings, and west trackwall construction, then the same sequence on the east side of 136th, followed by trackwork. Previously the critical path of this segment ran through the retaining walls on the west end and followed by trackwork.

Activity Name	Start	Finish	2018				2019				2020			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
E340 Construction	24-Feb-17 A	30-May-20												
CONSTRUCTION	24-Feb-17 A	30-May-20												
~MILESTONES/EASEMENTS~	29-Aug-18	30-May-20												
~~Milestones	29-Aug-18	30-May-20												
Calculated Milestones	29-Aug-18	30-May-20												
MS #1 - Actual Complete Grading & Stabilization of West Tributary Wetland	29-Aug-18	30-Aug-18												
MS #3 - Actual Acceptance of Systems Interface Data Table (SDIT)	07-Oct-18	08-Oct-18												
MS #2 - Actual Substantial Completion of West Tributary Wetland	27-Mar-19	28-Mar-19												
MS #4 - Actual Substantial Completion	29-May-20	30-May-20												
~SUBMITTALS/PRELIMINARY ACTIVITIES~	24-Feb-17 A	23-Mar-19												
~MOBILIZATION~	24-Feb-17 A	13-Dec-19												
~SITEWORK~	04-Apr-17 A	29-Apr-20												
~RETAINING WALLS~	06-Feb-18	18-Dec-19												
~AERIAL STRUCTURES~	15-May-17 A	08-Dec-19												
~STATIONS~	05-Jan-18	31-Jan-20												
~ELECTRICAL/ITS~	02-Jan-18	26-Jun-19												
~FINISHES~	01-Aug-18	09-Oct-18												
~TRACKWORK~	23-Mar-18	29-Apr-20												
~LANDSCAPING/FLATWORK~	18-Jun-18	02-Apr-20												
~TESTING AND COMMISSIONING~	01-Nov-19	10-Dec-19												

Schedule Performance Index

This period, the SPI early is at 0.48 and the SPI late is at 1.26. The late index indicates that the Contractor continues to be ahead of the planned late finish work. The SPI early is indexed behind the Contractor's planned early finish schedule. Both early and late index has remained approximately the same as previous months which is supported by the fact that the Contractor continues to face challenges with commercial connections being done by multiple private utility companies.



Link Light Rail East Link Extension - Construction

Next Period's Activities

- Completion of MGI Fire service relocation and tie-ins.
- Setting bottoms for the EL319 Vault and shoring the SW corner of the excavation.
- Complete installation of temporary intercept vaults and conduit connections.

Closely Monitored Issues

- The complexity of coordination with private utility companies (PSE, CenturyLink and Comcast) is still an ongoing challenge. These are critical to minimize impacts (such as inadvertent strike leads to service interruptions, unidentified utilities leads design revision in turn impacts physical work).
- Disputed Seattle City Light property easements is impacting City of Bellevue's 124th Avenue construction which in turn may impact E340 Contractor's early guideway work (soldier pile and retaining walls).
- Potential contamination of soil and ground water during excavation to relocate King County Sewer.
- Commercial utility connections were not identified in contract, working with private utilities to restore connections.

Cost Summary

Present Financial Status	Amount
E340 Contractor– Max J Kuney	
Original Contract Value	\$93,170,012
Change Order Value	\$1,215,020
Current Contract Value	\$94,168,360
Total Actual Cost (Incurred to date)	\$20,363,813
Financial Percent Complete:	22.0%
Physical Percent Complete:	22.0%
Authorized Contingency	\$9,317,000
Contingency Drawdown	\$1,215,020
Contingency Index	7.67



Installation of Vault 310

Contract E360 – SR 520 to Redmond Technology Center (RTC)

Current Progress

Design: Advanced design packages for the following areas: Overlake Village Station (OVS) Pedestrian Bridge is preparing re-submittal of 100% design package and landscaping 60% design was submitted. Redmond Technology Center (RTC) is progressing 100% comment resolution and SR520 Permanent Roadway 60% submission. Ongoing development of Civil Systems Guideway IFC, Civil Systems Integration 100%, and Overlake Village Ped Bridge substructure/superstructure 100% design.

Construction: Starter casing installation continued along the aerial guideway span and drilled shaft work installation proceeded with two shafts being poured. Detention vault work at Park Place continued with walls being poured and precast lid panels being set. Shotcrete and soldier pile work started for installation of walls S8, 13A, and 15. Other early site work construction continued with installation of temporary access roads, protection of existing utilities, sanitary sewer tie-ins, and storm drain utility installation.

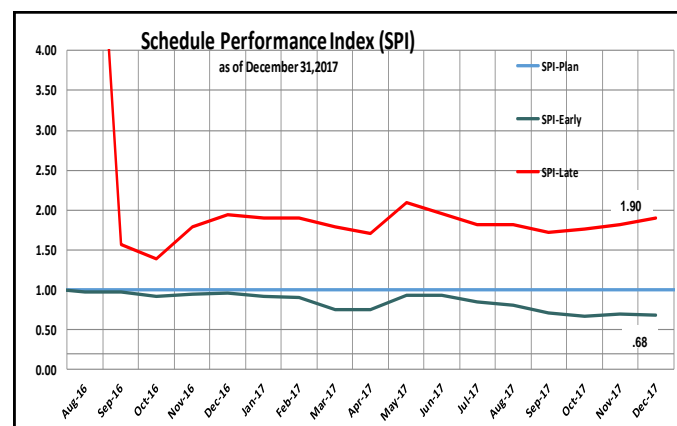
Schedule Summary

In December, the Contractor continued progressing all design packages toward 100% or IFC. Construction on the temporary access roads continued and mass excavation for retaining walls took place. Early utility work was completed at the stations and the Contractor also commenced drilling shafts. The critical path for this project follows the aerial guideway through trackwork.

Activity Name	Start	Finish	2018				2019			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
E360 Construction	13-Jul-16 A	13-Dec-19								
Base Contract	13-Jul-16 A	13-Dec-19								
Design	13-Jul-16 A	25-May-18								
Design Milestones	03-Oct-16 A	10-May-18								
Design Submittals Start		03-Oct-16 A								
30% Design Submittals Complete		28-Oct-16 A								
60% Design Submittals Complete		03-Feb-18								
100% Design Submittals Complete		19-Mar-18								
IFC Design Submittals Complete		10-May-18								
Design Overhead	13-Jul-16 A	18-Jul-17 A								
Design and Engineering	13-Jul-16 A	25-May-18								
Construction	14-Jul-16 A	13-Dec-19								
General	10-Apr-17 A	13-Dec-19								
Project Milestones	10-Apr-17 A	13-Dec-19								
Civil/Systems 100% Design Submittal (NTP+300d) (09-May-2017)		10-Apr-17 A								
Substantial Completion		16-Oct-19								
Actual Acceptance of all Work		13-Dec-19								
WA #1 -Track Slab Guideway	22-May-17 A	25-Sep-19								
WA #2 -Aerial Guideway	01-Jun-17 A	02-Oct-19								
WA #3 -Ballasted Guideway Block #1	08-Jun-17 A	12-Jul-19								
WA #4 -Overlake Village Station	14-Jul-16 A	20-Aug-19								
WA #5 -Ballasted Guideway Block #2	15-Aug-17 A	22-Jul-19								
WA #6 -Overlake Transit Center	01-May-17 A	27-Sep-19								
WA #7 -OVS Pedestrian Bridge	20-Apr-18	13-Sep-19								
WA #8 -RTC Pedestrian Bridge	16-Oct-19	16-Oct-19								

Schedule Performance Index

This period, the SPI early is 0.68 and SPI late is 1.90. The early SPI value continues to reflect slippage of early finishes of baseline planned work along with the ST directed stoppage of RTC Ped Bridge design which has not been deleted. Construction start has been somewhat slowed by design slippage. Late SPI recovery is due to the resequencing of construction and pushing the RTC Ped Bridge design out.



Link Light Rail East Link Extension - Design– Build

Next Period's Activities

- *Design* - Finalize Civil Systems IFC package for ST review; Civil SR520 60% design package submittal; OVS facilities 100% submittal and preparing OVS Ped Bridge 100% re-submittal.
- Finish backfill of OVS vault and begin vault testing, commissioning and punchlist.
- Continue casing and drilled shaft installation in Work Area 2 (Aerial Guideway). Caisson rebar fabrication ongoing and column /cap form delivery.
- Complete Park Place Vault concrete construction and backfill.
- Continue construction of walls S8 (shotcrete) and 13A (CIP wall).

Closely Monitored Issues

- *Alternative RTC Pedestrian Bridge* - Contractor and Microsoft are working on 60% designs for an alternative RTC Ped Bridge. Once design, costs and schedule are developed; amendment to the OTC Funding Agreement and the construction contract are anticipated.
- Contractor, Sound Transit and City of Redmond continue to work out permitting issues.
- ST and the Contractor must resolve and negotiate changes related to Sales Tax Increase, Track/Fasteners/Clips, and OVS Infiltration Vault base modification.
- Implementation of Safety Certification for mitigating hazards. Development of Safety and Security Certification Plan (SSCP).

Cost Summary

Present Financial Status	Amount
E360 Contractor— Kiewit-Hoffman	
Original Contract Value	\$225,336,088
Change Order Value	\$295,579
Current Contract Value	\$225,631,667
Total Actual Cost (Amount Billed)	\$55,005,603
Financial Percent Complete:	24.4%
Physical Percent Complete:	24.4%
Authorized Contingency	\$23,071,580
Contingency Drawdown	\$580,638
Contingency Index*	9.1



OVS Infiltration Vault

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Link Light Rail Downtown Redmond Link Extension

Scope

The Downtown Redmond Link Extension builds new light rail from the Redmond Technology Center Station to downtown Redmond by 2024. Light rail will travel along SR-520 with two new stations in southeast Redmond, at Marymoor Park, and downtown Redmond. The current budget for this project through completion of PE is \$28.6M, excluding real estate acquisitions.

Key Project Activities/Issues

- Negotiated with consultant on enabling creation of bridging documents for design build procurement
- Continued preparation of procurement documents for the project Design/Build Project Management Services Contract. Advertisement of RFQ is anticipated in January 2018.
- Completed FTA technical review of Biological Assessment. Processing task order with WSDOT for assistance with Endangered Species Act Formal Consultation with resource agencies.
- Received comments on 15% plan set and resolving comments.



Map of Downtown Redmond Link Extension.

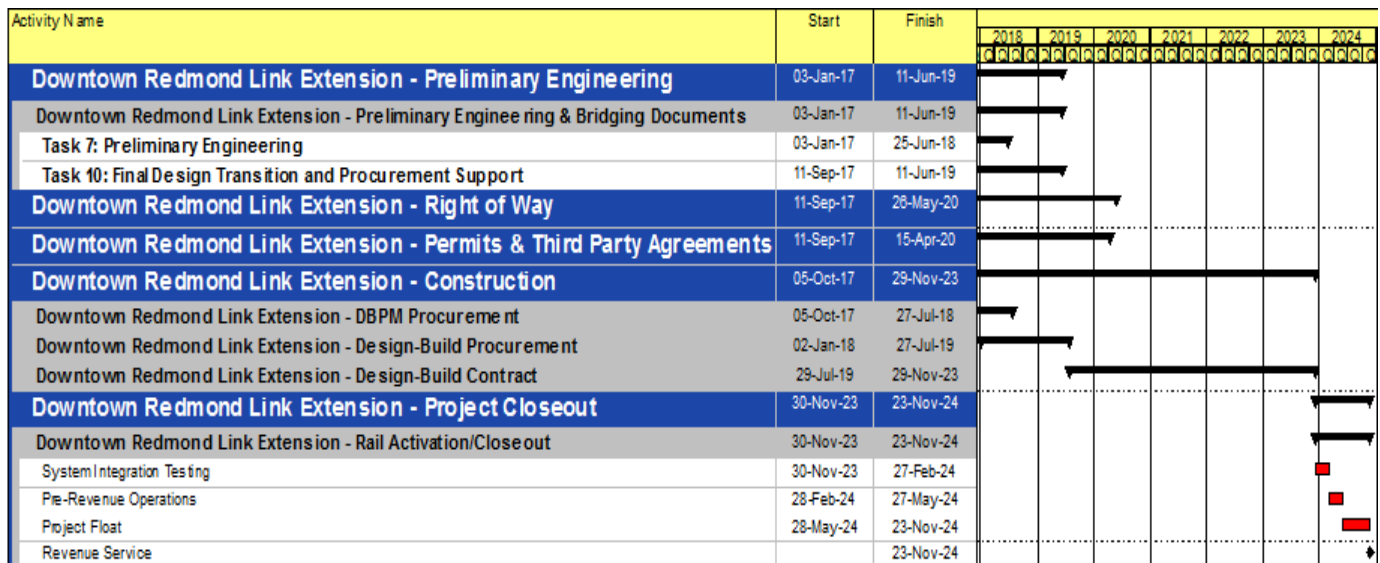
Project Cost Summary

Voters approved funding for preliminary engineering for the Redmond Link extension in the 2008 in the Sound Transit 2 ballot measure. In response to the 2007-2009 Great Recession, the ST Board suspended the project. In February 2016, the ST Board restored funding to support preliminary engineering of the project prior to funding approval for final design and construction as part of the Sound Transit 3 Plan. Table (below) figures in millions.

Project Phase	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation Versus EFC
Administration	\$5.3	\$5.3	\$1.5	\$1.5	\$5.3	\$0.0
Preliminary Engineering	\$19.8	\$19.8	\$13.8	\$8.4	\$19.8	\$0.0
Final Design	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Services	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
3rd Party Agreements	\$2.5	\$2.5	\$0.3	\$0.1	\$2.5	\$0.0
Construction	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$1.1	\$1.1	\$0.5	\$0.2	\$1.1	\$0.0
Total	\$28.6	\$28.6	\$16.1	\$10.1	28.6	\$0.0

Project Schedule

The project schedule is presented below. The project is currently undergoing environmental analysis ahead of the ST Board adopting the project to be built. Preparations are underway to begin early property acquisition next year. The PE consultant has begun preparation of bridging documents for the Design-Build procurement. The RFP is anticipated to be issued in Q3 2018. The project is anticipated to be baselined by Q4 2018. Project is currently forecast for completion near the end of 2024.



Sound Transit Board Actions

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

Motion Number	Description	Date
	None this period.	

Community Outreach

- Continued meeting with property owners regarding refinements on the project's route, profile and stations.
- Continued planning outreach activities to gather public input on project requirements.
- Future updates regarding Community Outreach will be provided in the Sound Transit website:*
<https://www.soundtransit.org/Projects-and-Plans/Find-a-Project>

Environmental

- None to report.

Link Light Rail West Seattle & Ballard Link Extensions

Scope

The West Seattle segment includes 4.7 miles of light rail and 5 light rail stations from downtown Seattle to West Seattle's Junction neighborhood. The route will run primarily on elevated guideway with a new rail-only bridge over the Duwamish River. Revenue Service by 2030.

The Ballard segment includes 7.1 miles of light rail from downtown Seattle to Ballard's Market Street area. It includes 9 light rail stations. The route will run through a new downtown Seattle rail-only tunnel, elevated guideway, and a rail-only bridge over Salmon Bay. Revenue Service begins by 2035.

Key Project Activities

- Sound Transit Board and Seattle City Council approved the Partnering Agreement between the two agencies. The agreement establishes the framework for streamlining project delivery and reaching stakeholder consensus on a preferred alternative by early 2019, which is a key strategy to meet the aggressive project schedules.
- Formed the Elected Leadership Group and planned for initial meeting on 1/4/2018. The purpose of this group is to reach consensus on a recommended preferred alternative and work through project issues as needed.
- Worked with project development services consultant to develop a project schedule and work plan; began gathering existing conditions data for the project corridor and reviewing the voter-approved ST3 representative alignment.



Map of West Seattle & Ballard Link Extensions

Project Cost Summary

The West Seattle and Ballard Link Extensions are voter-approved projects under the ST3 Plan. The ST Board approved budget allows staff to retain a consultant team to begin alternatives development, followed by an Environmental Impact Statement, leading to ST Board selection of the project to be built and FTA issuance of a Record of Decision no later than 2022. Table (below) figures in millions.

Project Phase	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation Versus EFC
Administration	\$63.1	\$1.0	\$1.0	\$63.1	\$0.0
Preliminary Engineering	\$205.4	\$2.4	\$1.1	\$205.4	\$0.0
Final Design	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Construction Services	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
3rd Party Agreements	\$11.4	\$0.0	\$0.0	\$11.4	\$0.0
Construction	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$6.0	\$0.1	\$0.0	\$6.0	\$0.0
Total	\$285.9	\$25.5	\$2.1	\$285.9	\$0.0

Project Schedule

The preliminary project schedule overview is presented below. Sound Transit is developing the master project schedule in Primavera P6, which is supported by detailed schedule of Phase 1, Alternatives Development, created by the project development consultant.

Activity	2017		2018				2019				2020				2021				2022			
	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Issue NTP - Project Development Consultant Contract		◆																				
Project Development Phase 1 - Alternatives Development																						
Negotiation Phase 2 contract																						
Phase Gate 2 & 3																						
ST Board identifies DEIS Alternatives																						
ST Board identifies Preliminary Preferred Alternative																						
ST Board approves Phase 2 Contract Amendment																						
Project Development Phase 2 - Conceptual Engineering / DEIS																						
Negotiation Phase 3 contract																						
Brief Board on Construction Delivery Method and Contracts Packaging																						
ST Board reaffirms Preferred Alternative																						
ST Board approves Phase 3 Contract Amendment																						
Project Development Phase 3 - Preliminary Engineering / FEIS																						
Publish FEIS																						
ST Board selects Project to be Built																						
FTA Issues ROD																						
Final Design and/or Alternative Project Delivery Procurement(s)																						

Sound Transit Board Actions

Board motions and resolutions directly related to West Seattle and Ballard Link Extensions are summarized in the table below.

Motion Number	Description	Date
M2017-161	Authorizing the chief executive officer to execute a Partnering Agreement with the City of Seattle for the West Seattle and Ballard Link Extensions Project.	Dec. 21

Environmental

- Engaged with FTA to introduce the project and prepare for Early Scoping.

Community Outreach

- Worked with City of Seattle to develop a Community Engagement and Communications Plan. The plan serves as a guide to the public for engaging in the project during the alternatives development phase.
- Began preparing for Elected Leadership Group, Stakeholder Advisory Group and Interagency Group meetings in January and February 2018.
- Began preparing for Early Scoping open houses; to be held in mid-February 2018.
- Continued to meet with the neighborhood groups and key stakeholders of the projects regularly.
- Future updates regarding Community Outreach will be provided in the Sound Transit website:
<https://www.soundtransit.org/Projects-and-Plans/Find-a-Project>.

Link Light Rail

S. 200th Link Extension

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 configuration 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.
- Station:** Angle Lake Station is located at South 200th Street.
- Systems:** Signals, track electrification, and SCADA communications
- Budget:** \$383.2 Million
- Schedule:** Revenue Service began on September 24, 2016



Map of S. 200th Link Extension.

Key Project Activities

- *Design Build Guideway and Station (S440):* The project team working with Contractor and Operations to finalize remaining closeout work to achieve Acceptance on the contract. ST evaluating claim submitted by Contractor.
- *Design Build Parking Garage (S445):* The project team working toward achieving Acceptance on the contract.
- *Roadway Improvements (S447):* Closeout complete.
- *Military Road/South 200th Intersection (S446):* WSDOT finalizing punch list activities and complete year one plant establishment work by May 2018.
- *Project Wide:* Goal to conclude all closeout and follow-on work by end of 1st QTR 2018.

Closely Monitored Issues

- *S440:* Completion of Training, safety certification and as-builts needs to be accomplished.

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. 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	Authorized Project Allocation	Commitment to Date	Incurred to Date	Est. Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$16.1	\$17.1	\$16.2	\$16.1	\$16.5	\$0.6
Preliminary Engineering	\$5.9	\$5.7	\$5.7	\$5.7	\$5.7	\$0.0
Final Design	\$20.0	\$9.5	\$8.7	\$8.7	\$8.7	\$0.8
Construction Services	\$15.1	\$17.3	\$17.1	\$17.1	\$17.1	\$0.2
3rd Party Agreements	\$6.9	\$7.1	\$5.7	\$3.8	\$3.3	\$3.8
Construction	\$275.7	\$282.9	\$239.4	\$238.4	\$243.1	\$39.8
Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
ROW	\$43.5	\$43.5	\$38.0	\$38.0	\$38.1	\$5.4
Capital Total	\$383.2	\$383.2	\$330.8	\$327.8	\$332.6	\$50.6
Finance Cost	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Project Total	\$383.2	\$383.2	\$330.8	\$327.8	\$332.6	\$50.6

The overall project Estimated Final Cost (EFC) for this period reflects \$332.6M, a savings projection of \$50.6M. This period incurred cost increased by approximately \$0.2M, split between construction phase for S440 contract activity followed by the administration phase.

The EFC grouped by SCC is also reflecting \$332.6M, a savings projection of \$50.6M. The work remaining can be achieved under the adopted budget.

Cost Summary by SCC

Project Elements by SCC	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Est. Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track Elements	\$144.8	\$133.0	\$100.2	\$100.4	\$109.5	\$23.5
20 Stations	\$46.4	\$51.7	\$42.0	\$42.0	\$42.3	\$9.5
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	\$55.6	\$54.4	\$55.0	\$0.3
50 Systems	\$30.8	\$19.9	\$20.4	\$20.3	\$20.4	-\$0.4
Construction Subtotal (SCC 10-50)	\$256.6	\$259.9	\$218.2	\$217.2	\$227.1	\$32.8
60 Row, Land, Existing Improvements	\$43.5	\$43.5	\$38.0	\$38.0	\$38.1	\$5.4
70 Vehicles	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
80 Professional Services	\$64.1	\$72.5	\$74.6	\$72.6	\$65.6	\$6.8
90 Unallocated Contingency	\$19.0	\$7.3	\$0.0	\$0.0	\$1.8	\$5.5
Project Total (SCC 10-90)	\$383.2	\$383.2	\$330.8	\$327.8	\$332.6	\$50.6
100 Finance Cost	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Project Total (SCC 10-90)	\$383.2	\$383.2	\$330.8	\$327.8	\$332.6	\$50.6

Cost Contingency Management

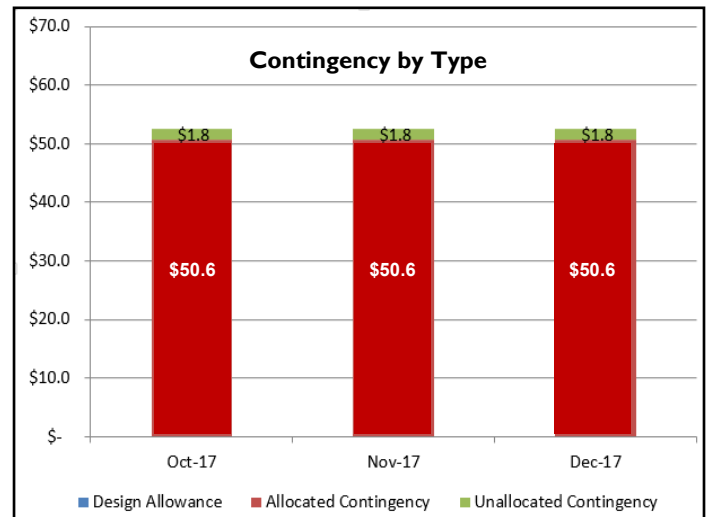
The overall project contingency balance as of this period is \$52.4. Table (below) figures in millions.

Design Allowance (DA): N/A

Allocated Contingency (AC): This period the AC balance is \$50.6M, reflecting no change.

Unallocated Contingency (UAC): This period the UAC balance is \$1.8M, reflecting no change.

Contingency Status	Baseline		Current	
	Amount	% of Total	Amount	% of Work Remaining
Design Allowance	\$26.7	7.0%	\$ -	0.0%
Allocated Contingency	\$29.8	8.0%	\$50.6	1044.9%
Unallocated Contingency	\$19.0	5.0%	\$ 1.8	37.2%
Total	\$75.5	20.0%	\$52.4	1082.0%



S440 Contract—Design -Build (Guideway and Station)

Close-out

Revenue Service began on September 24, 2016. The S440 Contractor continues to work on closeout items.

Close-out Activities

Current Period

- Continued replacement work for E-clips on guideway.
- Continued closeout activities: finalizing last few change orders and Station As-Built.

Next Period

- Complete E-clips replacement work.
- Complete closeout activities.
- Issue Final Acceptance to Contractor.

Closely Monitored Issues

- The Contractor has submitted a claim regarding a Station Control Unit.

S445 Contract—Design -Build Parking Garage

Close-out

Substantial Completion issued on December 21, 2016.

No more updates for this contract.

Cost Summary

Present Financial Status	Amount
S440 Contractor—PCL Civil Contractors, Inc.	
Original Contract Value	\$169,000,000
Change Order Value	\$6,856,390
Current Contract Value	\$175,758,490
Total Actual Cost (Amount Billed)	\$175,753,406
Financial Percent Complete:	99.9%
Physical Percent Complete:	100%
Authorized Contingency	\$13,520,000
Contingency Drawdown	\$6,856,390
Contingency Index*	2.0

Cost Summary

Present Financial Status	Amount
S445 Contractor—Harbor Pacific/Graham	
Original Contract Value	\$29,978,000
Change Order Value	\$2,607,828
Current Contract Value	\$32,585,828
Total Actual Cost (Amount Billed)	\$32,582,606
Financial Percent Complete:	100%
Physical Percent Complete:	100%
Authorized Contingency	\$2,798,240
Contingency Drawdown	\$2,607,828
Contingency Index*	1.0

Link Light Rail Federal Way **Link** Extension

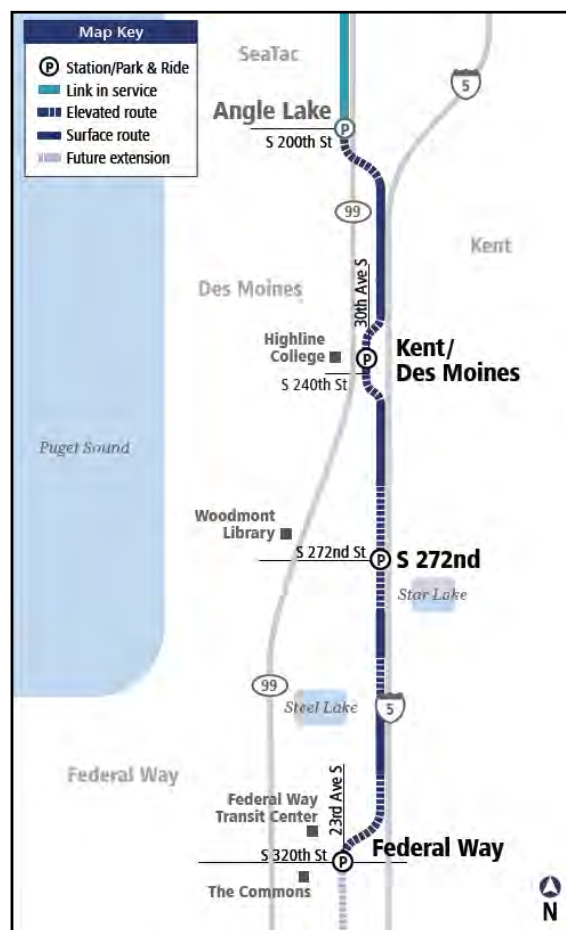


Scope

The Federal Way Link Extension adds approximately 7.8 miles of light rail from the Angle Lake Station in the City of SeaTac to the Federal Way City Center. The extension generally parallels SR 99 and I-5 freeway with stations at Kent/Des Moines, South 272nd Star Lake –and-Ride and the Federal Way Transit Center. The current budget for this project is \$412.6M.

Key Project Activities/Issues

- Continued to work with FTA & PMOC in preparations for Entry to Engineering and Full Grant Funding Agreement applications.
- Held a VE workshop, with City partners, project overview, city concerns, Design-Build education process, and incorporating lessons learned from Lynnwood and East Link Extensions.
- ROW properties (full and partial) continues to be certified and approved by Board in stages.
- Continued to work with each of the cities staff to coordinate code changes required to build the project and include changes in future development and transit way agreements.
- Coordination continues with WSDOT regarding project needs, WSDOT's SR509 project, air space leases and temporary construction easements.
- ST/King County/Federal Way Public Schools staff working together to evaluate land exchange feasibility on Mark Twain Elementary school and Redondo Park & Ride.



Map of Federal Way Link Extension.

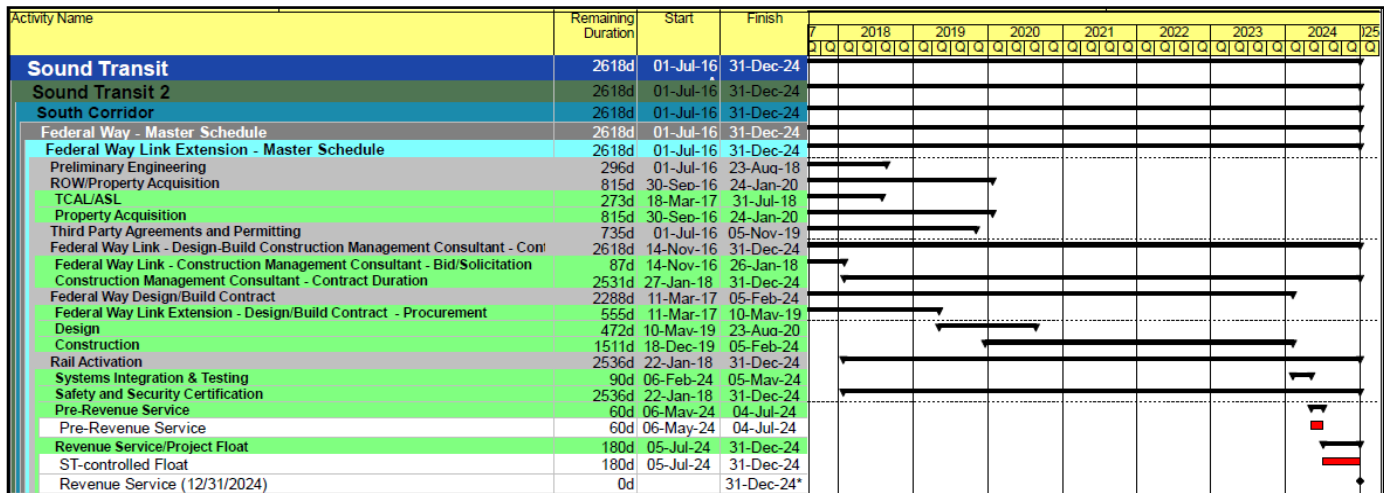
Project Cost Summary

In March 2017, the Sound Transit Board authorized the Federal Way Link Extension Project to advance through Gate 4 (Final Design), increasing the authorized project allocation from \$48.8M to \$412.6M. Board approval for Gate 5 (Baseline) to release the entire project budget will be sought in 4th QTR 2018. Table (below) figures in millions.

Phase	Authorized Project	Commitment	Incurred to Date	Forecasts and Trends	Estimated Final Cost (EFC)	Authorized Allocation Versus EFC
Administration	\$14.9	9.1	9.1	5.8	14.9	\$0.0
Preliminary Engineering	\$40.4	39.1	40.6	1.2	40.4	\$0.0
Final Design	\$2.4	0.3	0.3	2.0	2.4	\$0.0
Construction Services	\$45.7	0.0	0.0	45.7	45.7	\$0.0
Third Parties	\$18.6	3.1	1.6	15.5	18.6	\$0.0
Construction	\$25.5	0.0	0.0	25.5	25.5	\$0.0
Right of Way	\$265.1	8.3	5.7	256.9	265.1	\$0.0
Total	\$412.6	\$60.0	\$57.4	\$352.7	\$412.6	\$0.0

Project Schedule

The project schedule is presented below. Record of Decision (ROD) was received in March 2017. ST will issue an RFQ for potential Design-Build contractors in 1st QTR 2018. Real Estate acquisitions are now underway and additional detail has been added to the master schedule to monitor any impacts to the project. Project Baseline has been delayed to 3rd QTR 2018 to allow time for completion of independent cost estimate and risk assessment.



Right-of-Way

The Right-of-Way project for Federal Way Link Extension involves the acquisition, including owner and tenant relocations as appropriate, of a range of property interests. Property interests includes compensable (e.g. fee acquisitions, permanent and temporary construction easements and non-compensable rights - e.g. rights of entry). As of this period, a total of 283 parcels are certified for Federal Way Link Extension (one additional relocation identified, three relocations vacated and three additional offers made). Approximately 247 owners, tenants and businesses will be relocated as part of the project.

Federal Way Link Extension Property Acquisition Status								
	Board Approved	Offers Made/In Negotiations	Signed Agreements	Possession and Use	Admin Settlement	Closings to date	Relocations Required	Parcels Vacated
Total	283	28	5	0	0	4	247	3

*Number totals may differ from other reports due to the timing of reporting periods.

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 this period.	

Community Outreach

- Continued meeting with property owners regarding the ST Board decision on the project's route, profile and station areas.
- Hosted neighborhood briefings to discuss project impacts with Heritage Court Condos in Des Moines and Chelsea Court Condos in Federal Way.
- Future updates regarding Community Outreach will be provided in the Sound Transit website:
<https://www.soundtransit.org/Projects-and-Plans/Find-a-Project>.

Phase 3 Preliminary Engineering (PE)

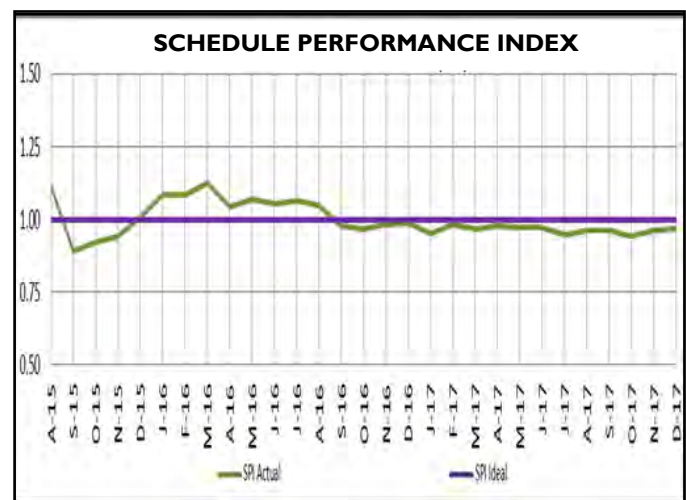
In July 2015, Sound Transit executed an amendment to the professional services agreement with HDR Engineering, Inc. for Phase 3 professional services, including completion of a Final Environmental Impact Statement (FEIS) using the preferred alternative and the other alternatives in the Draft EIS, preliminary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

- Record of Decision (ROD) from FTA received and moving toward Entry to Engineering.
- Resolution of Pre-Final PE submittal comments by third parties and initiation of development of project requirements associated with RFP development for design-build contract.
- Continued discussion with FTA regarding New Starts requirements for Entry to Engineering.
- Agreements setup with affected cities for design review and RFP preparation.
- Ratings submittal package submitted in September.
- Continued property acquisition.

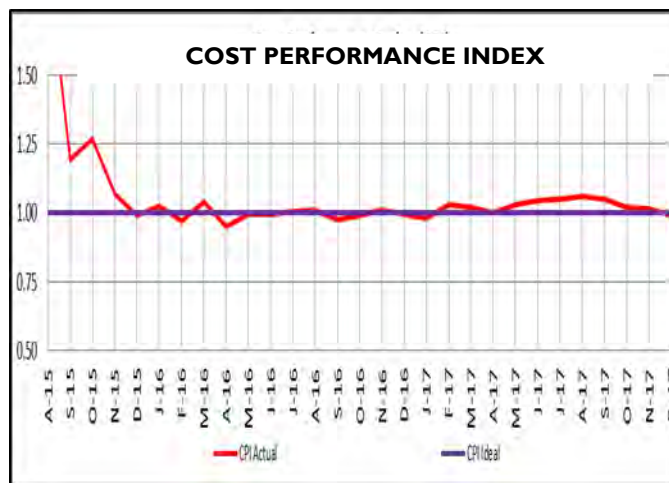
Phase 3 Schedule Performance

The cumulative Schedule Performance Index (SPI) is 0.97 through December 2017, indicating the overall amount of work accomplished is near planned. A new plan has been developed to incorporate new scope to extend the consultant contract for assistance in RFP process of DB contract and in ROW acquisition support in 1st QTR 2018.



Phase 3 Cost Performance

Phase 3 expenditures through December 2017 totaled \$29.1M, approximately 98% of the total contract. The Phase 3 percent complete is reported at 97%, with an earned value of \$28.9M. The cumulative Cost Performance Index (CPI) is 0.99 indicating costs are on track with work accomplished.



Phase 3 Performance	Cumulative To Date
Amount Invoiced	\$29.1M
% Spent	98%
Earned Value	\$28.9M
% Complete	97%
SPI	0.97
CPI	0.99

Link Light Rail Tacoma Link Extension

Scope

Limits: City of Tacoma

Alignment: The Tacoma Link Extension project is a 2.4-mile extension of the existing Tacoma Link system from the Theater District in downtown Tacoma to the Hilltop neighborhood. The extension will travel in street with traffic along Stadium Way, North 1st. Street, Division Avenue, and Martin Luther King Jr. Way.

Stations: Old City Hall, S. 4th, Stadium District, Tacoma General, , 6TH Avenue, Hilltop District, and St. Joseph.

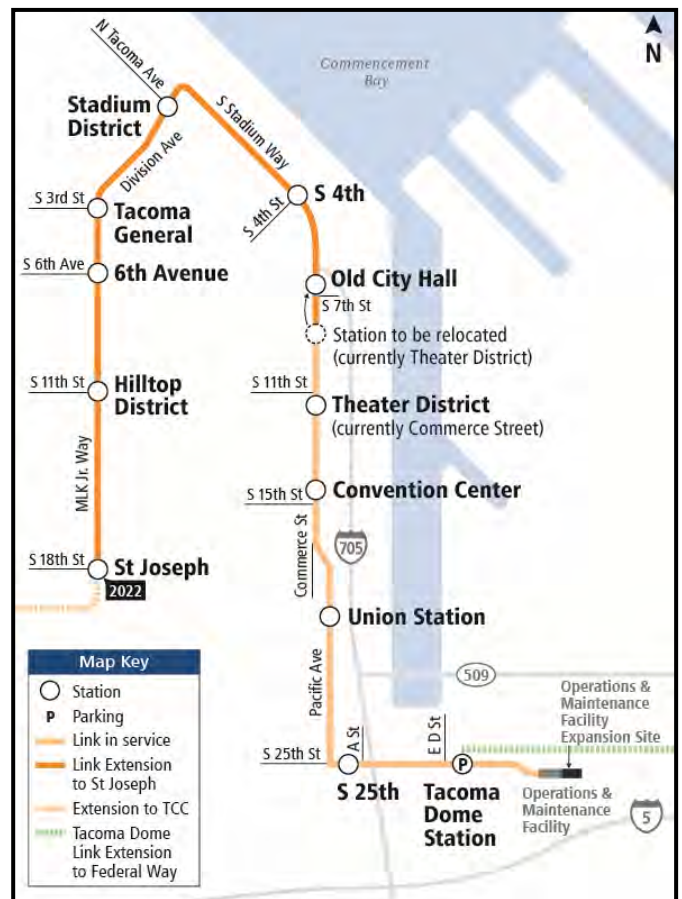
Systems: Expansion of the Operations and Maintenance Facility; The at-grade alignment will include additional signals, OCS, traction power, and communications infrastructure.

Budget: \$217.3 Million Phase Gate 5

Phase: Final Design and Construction

Const. Starts: 2018

Service: May 2022



Map of Tacoma Link Extension.

Key Project Activities

Final Design

- Design consultant continued comment resolution of ST and Third Party reviewers of the 90% design package.
- ST design staff and consultant continued work on contract Special Conditions.
- Continued work with City of Tacoma identification of betterment scope.

Pre-Construction Services

- CMC Resident Engineer and ST staff continue to support maintenance of traffic plans with design consultant and City of Tacoma.
- ST staff continued work on development of Division 01 specifications.

Third Parties

- Continued negotiations with the City of Tacoma.

Right-of-Way

- Right of way property acquisition activities continued as they relate to required temporary construction easements (TCE) along the alignment.

Vehicles

- Received ST Board approval to award LRV contract to Brookville Equipment Corporation. NTP will be issued in early December 2018.

Project Cost Summary

In September 2017, Sound Transit Board adopted the Tacoma Link Extension baseline schedule and budget by increasing the authorized project allocation from \$34.6M to \$217.3M. 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	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$16.9	\$5.6	\$5.6	\$16.9	\$0.0
Preliminary Engineering	\$5.6	\$5.6	\$5.6	\$5.6	\$0.0
Final Design	\$10.8	\$10.4	\$8.4	\$10.8	\$0.0
Construction Services	\$9.9	\$0.5	\$0.3	\$9.9	\$0.0
3rd Party Agreements	\$1.4	\$1.1	\$0.5	\$1.4	\$0.0
Construction	\$127.1	\$0.0	\$0.0	\$127.1	\$0.0
Vehicles	\$35.4	\$31.2	\$0.4	\$35.4	\$0.0
ROW	\$3.5	\$2.0	\$1.6	\$3.5	\$0.0
Contingency	\$6.5	\$0.0	\$0.0	\$6.5	\$0.0
Total	\$217.3	\$56.4	\$22.3	\$217.3	\$0.0

Cost Summary by SCC

Project Elements by SCC	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
10 Guideway & Track	\$21.9	\$0.0	\$0.0	\$21.9	\$0.0
20 Stations	\$1.8	\$0.0	\$0.0	\$1.8	\$0.0
30 Support Facilities	\$26.6	\$0.0	\$0.0	\$26.6	\$0.0
40 Sitework & Special Conditions	\$40.0	\$0.0	\$0.0	\$40.0	\$0.0
50 Systems	\$25.0	\$0.0	\$0.0	\$25.0	\$0.0
Construction Subtotal (10 - 50)	\$115.4	\$0.0	\$0.0	\$115.4	\$0.0
60 Row, Land	\$3.5	\$2.0	\$1.6	\$3.5	\$0.0
70 Vehicles (non-revenue)	\$35.7	\$31.2	\$0.4	\$35.7	\$0.0
80 Professional Services	\$56.1	\$23.2	\$20.3	\$56.1	\$0.0
90 Unallocated Contingency	\$6.5	\$0.0	\$0.0	\$6.5	\$0.0
Total (10 - 90)	\$217.3	\$56.4	\$22.3	\$217.3	\$0.0

Risk Management

The Tacoma Link Risk and Contingency Management Plan (RCMP) was 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.

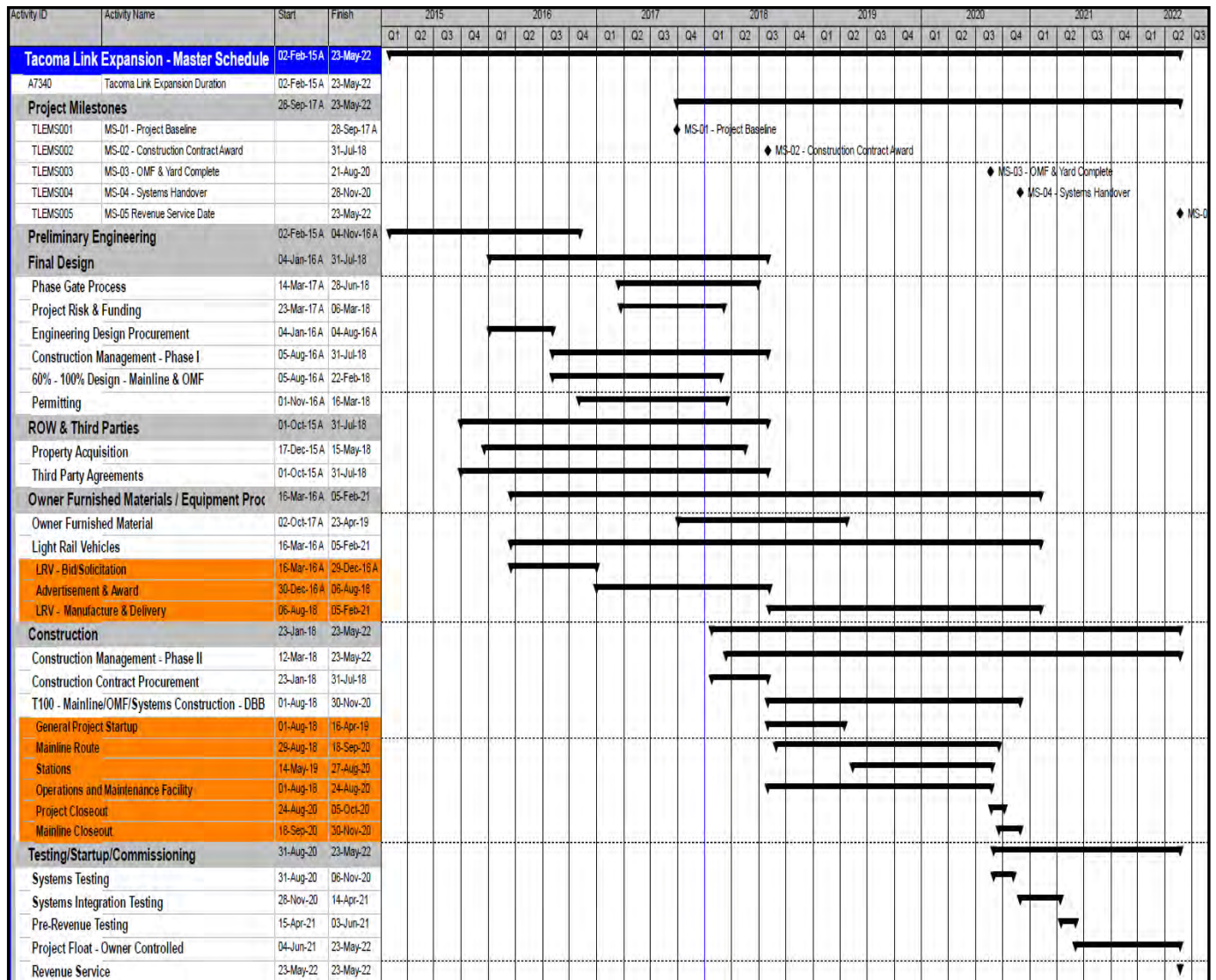
The Baseline Risk Assessment was conducted in May 2017. The 4th QTR 2017 Risk Review Meeting was held in December 2017. The 1st QTR 2018 Risk Review Meeting is scheduled for March 2018.

Link Light Rail Tacoma Link Extension



Project Schedule

The Master Schedule has been updated through the end of December. The 100% Design Package has been rescheduled for early January 2018. Phase Gate 6 (Proceed to Construction) activities have been added, with Board approval scheduled for June. Processing of the Building Permits has been rescheduled, concurrent with the 100% design review. Offers on TCE Batch No. 2 are now in progress. Notice to Proceed for the LRVs remains early January. LRV manufacturing is still scheduled to start in early January of 2018. Float is now 11 months. The Revenue Service date remains May 23, 2022.



Right of Way

The Tacoma Link Extension project is needed for the expansion of the region's light rail system. On November 19, 2015 the Sound Transit Board selected the project route, stations, and operations and maintenance facility expansion site for the Tacoma Link Expansion project. The Tacoma Link Expansion is a 2.4 mile extension of Tacoma Link from the Theater District to the Hilltop District. The extension will travel primarily along Stadium Way, 1st Street, Division Avenue, and Martin Luther King Jr. Way (MLK), and includes a relocated Theater District station and six new stations at Stadium Way/South 4th Street, Stadium District, MLK/Division Avenue, MLK/6th Avenue, MLK/11th Street, and MLK/19th Street. The Tacoma Link Operations and Maintenance Facility will be expanded to the east and five new vehicles will be purchased. The right-of-way project involves the acquisition, including owner and tenant relocations as appropriate, of a range of property interests. Property interests includes compensable (e.g. fee acquisitions, permanent and temporary construction easements and non-compensable rights - e.g. rights of entry).

As of December 29, 2017, a total of 53 parcels are certified for Tacoma Link Extension. Approximately one property owner will be relocated as part of the project.

Tacoma Link Extension Property Acquisition Status								
Line Section	Board Approved	Offers Made/In Negotiations	Signed Agreements	Possession and Use	Admin Settlement	Closings to date	Relocation Required	Relocations Vacated
Total	53	11	0	0	0	1	1	0

**Number totals may differ from other reports due to the timing of reporting periods.*

Community Outreach

- Provided project updates to community groups and businesses to include Hilltop and Stadium business districts, MultiCare and the Hilltop Engagement Committee.
- Staffed City of Tacoma project office weekly.
- Drafted known stakeholder constraints for Special Conditions contract.
- Collected access information from businesses along the alignment.
- Created list of properties available to rent for contractor staging.
- *Future updates regarding Community Outreach will be provided in the Sound Transit website:*

<https://www.soundtransit.org/Projects-and-Plans/Find-a-Project>

Sound Transit Board Actions

Motion Number	Description	Date
	None to report this period.	

Link Light Rail Tacoma Link Extension - Final Design



Final Design

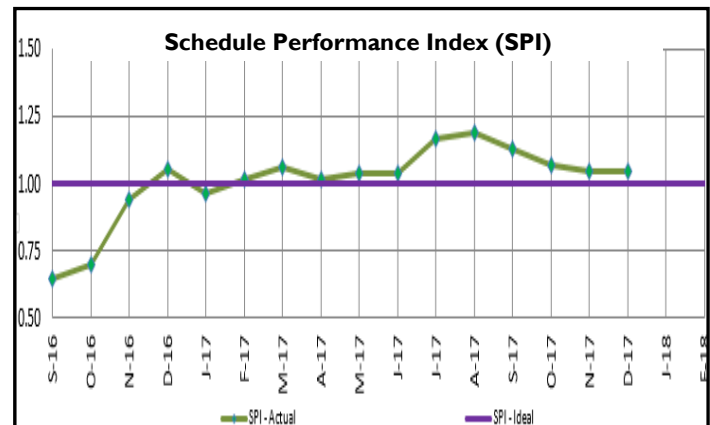
In July 2016 Sound Transit executed a contract with HDR Engineering, Inc. to provide civil and systems final design services for Tacoma Link.

Final Design Key Activities

- Civil/Track/Station Design. Civil and track design activities continued to focus on the design of 100% design and resolution and incorporation of review comments.
- Continued coordination meetings with the City of Tacoma.
- Finalized work order development with the City of Tacoma for construction services as identified in the Construction Services Agreement.
- Finalized effort on BAFO proposals from LRV manufacturers and selected a manufacturer.

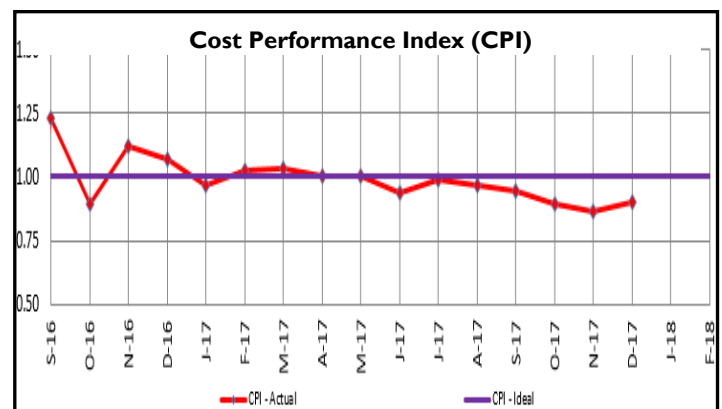
Final Design Schedule Performance

The cumulative Schedule Performance Index (SPI) for the Final Design contract is 1.05 through December, indicating that the contract work performed is ahead of the original plan. The Consultant is scheduled to complete the design submittals earlier than originally anticipated.



Final Design Cost Performance

Based on Actuals, the Contract expenditures through December totaled \$8.2M (Accrual Based), approximately 99% of the Final Design contract total. The Final Design contract percent complete reported at the end of December is 90%, with an earned value of \$7.4M. The cumulative Cost Performance Index (CPI) through December is 0.90; indicating expenditures greater than the budgeted cost for work performed. Additional scope in the Civil/Track/Station Design tasks are the greatest driver of the negative CPI along with the consultant accelerated schedule to complete the design submittals earlier than anticipated. There is 2 change requests that were executed to address the increased scope. The combination of these two requests is anticipated to be sufficient for HDR to compete the Final Design contract.



Phase 3 Performance	Cumulative To-Date
Amount Invoiced	\$8.2M
% Spent	99%
Earned Value	\$7.4M
% Complete	90%
SPI	1.05
CPI	0.90

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Link Light Rail

Link Operations and Maintenance Facility: East

Project Summary

Scope: The Link Operations and Maintenance Facility: East (OMF East) project, located in the City of Bellevue, includes a 160,000 sq. ft. operations and maintenance facility that will maintain, store and deploy and expanded light rail fleet, including seven LRV service bays, a LRV wash facility and storage for up to 96 LRVs.

Budget: \$449.2 Million (Baselined July 2016)

Schedule: Project completion December 2020

Phase: Proceed to Construction



Map of OMF East site.

Key Activities

- The major property acquisitions have been completed during this month and turned over to the Contractor on schedule and within the project budgets.
- The PBI warehouse was provided to the Forgotten Children's charity to stage their Christmas gift delivery through the month of December.
- The long term field office has been established on the south end of the site.
- The King County Sewer Betterment has been reviewed and approved by the King County Project Review Board. Similar approval is anticipated at Sound Transit's Capital Committee in January 2018.
- City of Bellevue has asked the project to conduct a Traffic Impact Analysis.
- Executed the In-Lieu Fee Agreement for Wetland mitigation with King County.

Closely Monitored Issues

- Permit schedule for the Master Development Plan (MDP) by City Of Bellevue is still pending approval and is a schedule risk. The MDP issuance is anticipated for March 2018.
- The King County Sewer betterment scope is a closely monitored item. The scope increase and cost escalations require ST Board approval even though the cost will be tracked outside of the project accounting.
- Elements of DB Contractor's proposal (shear wall elimination for future development) may require MOU amendment with City of Bellevue.

Project Cost Summary

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

Cost Summary by Phase

WBS Phase Elements	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation vs. EFC
Administration	\$17.6	\$17.6	\$3.5	\$3.6	\$17.6	\$0.0
Preliminary Engineering	\$9.5	\$9.5	\$9.0	\$8.6	\$9.5	\$0.0
Final Design	\$0.4	\$0.4	\$0.0	\$0.0	\$0.4	\$0.0
Construction Services	\$19.3	\$19.3	\$17.6	\$1.3	\$19.3	\$0.0
3rd Party Agreements	\$3.1	\$3.1	\$0.3	\$0.1	\$3.1	\$0.0
Construction	\$264.8	\$264.8	\$221.7	\$19.6	\$264.8	\$0.0
ROW	\$134.5	\$134.5	\$98.9	\$98.1	\$134.5	\$0.0
Total	\$449.2	\$449.2	\$351.0	\$131.3	\$449.2	\$0.0

For the month of December, there has been no change to the projects Estimated Final Costs, this number stands equal to the project budget at \$449.2M. During this period, the project incurred \$16.8M, of which the primary cost drivers were ROW costs amounting to \$11.8M and approximately \$4.6M on the M200 Design and Construction contract.

Cost Summary by SCC

Project Elements by Phase	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized v Allocation vs. EFC
10 Guideway & Track Elements	\$2.6	\$2.6	\$4.0	\$0.2	\$4.0	-\$1.5
20 Stations	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
30 Support Facilities: Yards, Shops	\$140.1	\$140.1	\$123.4	\$6.0	\$145.8	-\$5.7
40 Sitework & Special Conditions	\$43.6	\$43.6	\$39.5	\$3.3	\$41.3	\$2.3
50 Systems	\$43.0	\$43.0	\$38.3	\$1.9	\$38.3	\$4.7
Construction Subtotal (SCC 10-50)	\$229.3	\$229.3	\$205.2	\$11.4	\$229.5	-\$0.2
60 Row, Land, Improvements	\$134.5	\$134.5	\$98.9	\$98.1	\$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	\$47.0	\$21.8	\$71.4	\$0.2
90 Unallocated Contingency	\$13.8	\$13.8	\$0.0	\$0.0	\$13.8	\$0.0
Project Total (SCC 10-90)	\$449.2	\$449.2	\$351.0	\$131.3	\$449.2	\$0.0

Risk and Contingency Management

Risk Management

The Risk Contingency Management Plan (RCMP) established a risk management and oversight process for identifying, assessing, and monitoring risk and develop risk reduction/mitigation plans. It provides a tool for the project team to proactively manage risks on the project. Sound Transit (ST) continuously monitors 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 and/or schedule forecast. The OMF East quarterly risk register review meeting for 4th QTR 2017 was held in January 2018. The current top actively managed risks are listed below.

The Primary risk areas are for the project are listed below

- Permitting: Delays in the approval process for permits will impact the project schedule

Link Light Rail

Link Operations and Maintenance Facility: East



Risk Management, continued

- Design: As the project approaches the 60% design milestone, changes made to scope or design will have greater cost impact than during the earlier design stages.
- Scope: Scope increase as a result of Third Parties or ST stakeholders requesting additional work will impact the project schedule and budget.

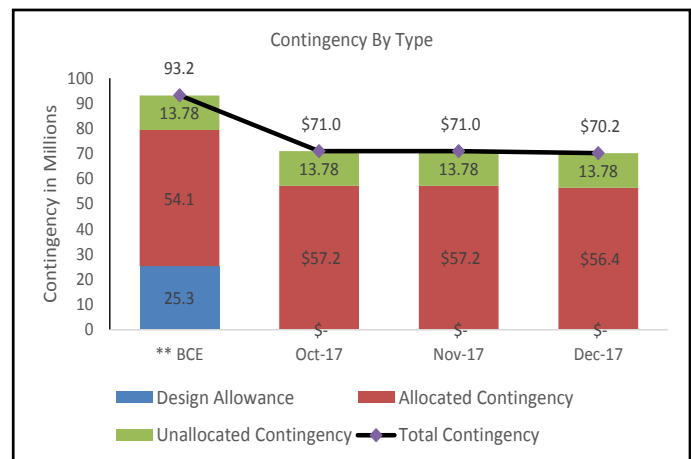
Contingency Status

The Link Operations and Maintenance Facility East was baselined and approved by Sound Transit Board in July 2016 with a total contingency of \$93.2M. Approximately 21.6M of Design Allowance was consumed and the remaining \$3.7M was allocated into the Design Build Contract. The Projects starting contingency balance as of the notice to proceed for construction was \$71.6M. For this period, the project has had to drawdown the contingency by 0.8M. The current contingency balance is \$70.2M

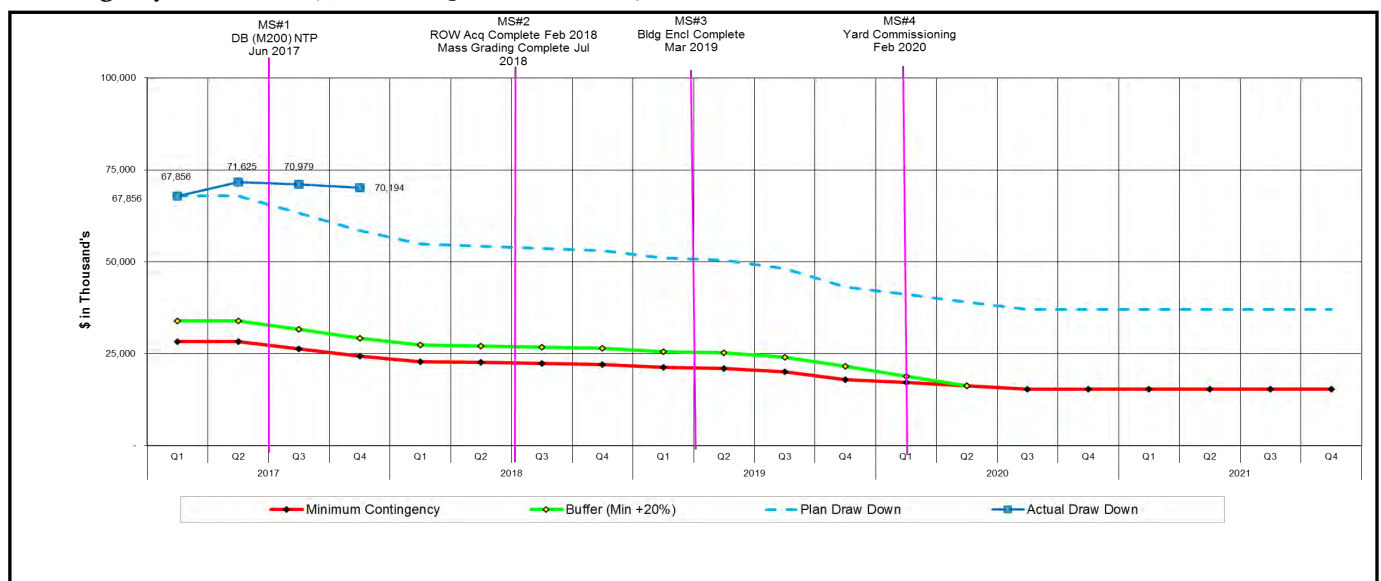
Allocated Contingency (AC) – Contingency dollars amounting to \$1.4M have been drawn down as of December 2017. This resulted in a drop of the remaining allocated contingency to \$56.4M.

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

Contingency Status	Baseline		Current	
	Amount	% of Total	Amount	% of Work Remaining
Design Allowance	\$25.3	5.6%	\$ -	0.0%
Allocated Contingency	\$54.1	12.0%	\$56.4	16.8%
Unallocated Contingency	\$13.8	3.1%	\$13.8	4.1%
Total	\$93.2	20.7%	\$70.2	21.0%



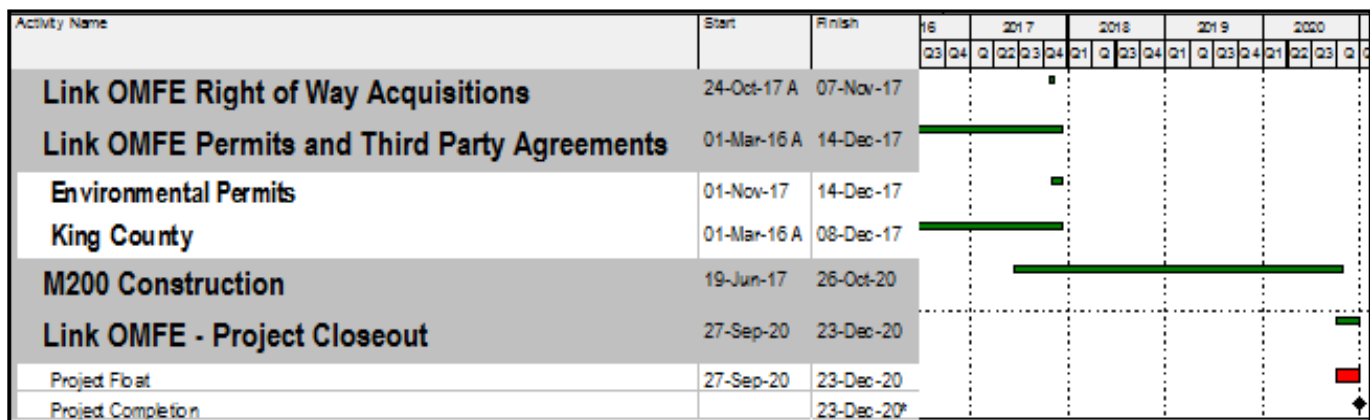
Contingency Drawdown (Quarter ending December 31, 2017)



Note: Earlier versions of the Contingency Drawdown graph had inadvertently displayed Milestone 2 (MS2) in 1st QTR 2018. MS2 is now correctly shown in 3rd QTR 2018.

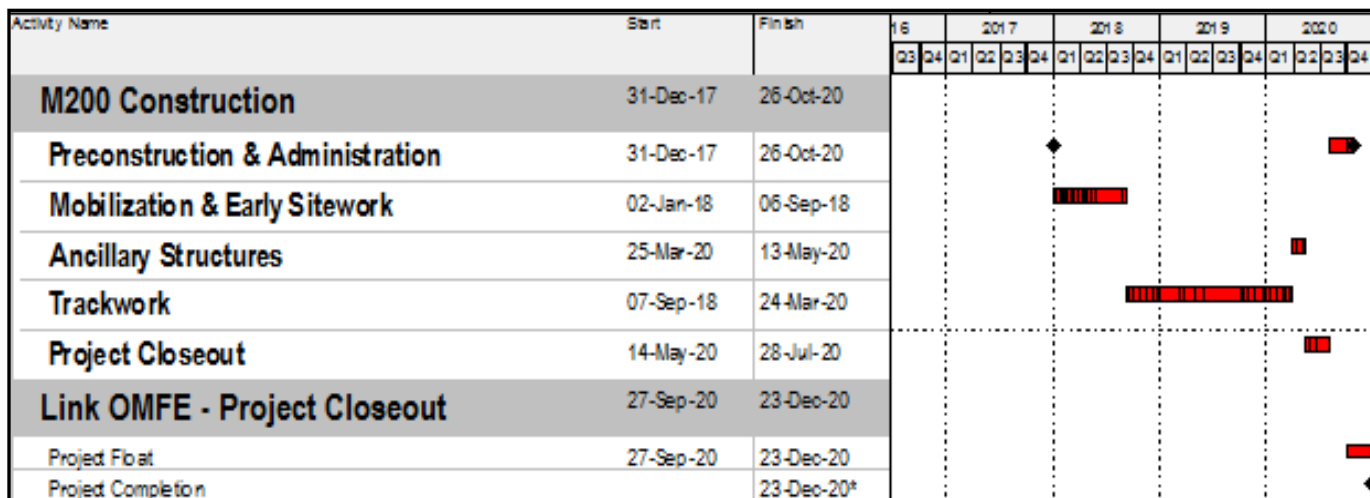
Project Schedule

The project schedule is presented below and reflected in the baseline. In this period the contractor finished setting up and moved into the field office space. The continued to work on Design packages 1,2,3,4 and the MDP. Demolition work started during this period as was the plan. Work continued on design and permit packages ahead of construction. All major property acquisitions were completed in December 2017, in time for limited construction phase work to start as planned in January 2018.



Critical Path Analysis

The critical path is now fully within the M200 contract. It runs through site preparation, including demo and abatement of existing structures. After grading is complete, the trackwork in the yard is the critical path, leading into signalization and testing at the end of the project.



Right of Way

Filed condemnations and requested Possession and Use of all properties. Continued relocations of tenants and settling acquisitions. This period, one additional parcel vacated. The right-of-way program status is summarized below:

Link OMF East Property Acquisition Status								
	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
Total*	11	10	0	2	0	6	32	14

*Number totals may differ from other reports due to the timing of reporting periods.

Sound Transit Board Actions

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

Motion Number	Description	Date
	None to report.	

Community Outreach

- Groundbreaking is set for mid February or early March timeframe.
- Communication tools for use during construction are in development
- Looking into periodically post contractor drone footage of project progress.

Environmental

- Wetland Mitigation Permit is under review by King County

Contract M200 - OMF East Design Build

Scope

Design and construct an O&M facility with offices and furnishings, storage yard for 96 LRVs, vehicle maintenance facility, Maintenance of Way (MOW) facility, bike trail, and light rail system elements [Traction Power Substation (TPSS), Overhead Catenary System (OCS), Communications and Supervisory Control & Data Acquisition (SCADA)] in Bellevue, WA.

Current Progress

The M200 Contractor continued to work on the early design and permit packages. The traffic study portion of the MDP permit, permit packages for the MOW and OMF buildings, Site clear and grade and utilities extension have been submitted to the City of Bellevue during the month of December. Additionally, design also progressed along on the three primary design packages. The construction activities that occurred in December where the mobilization of the earthworks and demolitions contractors. Demolition activities began mid month on the papermill and proceeded to the Staple and Nail building. Grading and surfacing of the temporary trail was substantially completed during this period. The fencing contractor began installing posts and panels along the north and south sections of the project site and also along 120th Ave NE.

Schedule Summary

The Contractors baseline schedule has been approved. The Contractors progressed schedule has undergone minor modifications from the baseline to reflect actual progress and to account for change orders. The critical path remains unchanged from the approved baseline schedule. The ST controlled schedule float remains untouched for the period.

Activity Name	Start	Finish	2017				2018				2019				2020			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
M200 Construction	19-Jun-17 A	26-Oct-20																
Preconstruction & Administration	19-Jun-17 A	26-Oct-20																
Milestones	19-Jun-17 A	26-Oct-20																
Contractual Milestones	19-Jun-17 A	26-Oct-20																
Milestone 1 - Substantial Completion	19-Jun-17 A	26-Sep-20																
Notice to Proceed (6/19/2017)	19-Jun-17 A																	
Milestone 1 - Substantial - Scheduled		26-Sep-20																
Milestone 1 - Contractual (1196 CD after NTP)		26-Sep-20*																
Milestone 2 - Final Completion	19-Jun-17 A	26-Oct-20																
Design Milestones	23-Jan-18	29-Jun-18																
Interim Construction Milestones	01-Sep-17 A	26-Sep-20																
Two Year Energy Performance Guarantee	27-Sep-20	01-Oct-20																
Administration	19-Jun-17 A	31-Jan-20																
Coordination of Work by Others	22-Nov-17 A	19-Mar-20																
Design	19-Jun-17 A	10-Jun-19																
Design Packages	19-Jun-17 A	29-Jun-18																
Permit Packages	19-Jun-17 A	12-Jun-18																
Design Administration	19-Jun-17 A	10-Jun-19																
Submittals & Procurement	05-Dec-17	22-Oct-19																
Construction	19-Jun-17 A	20-Aug-20																
Mobilization & Early Sitework	19-Jun-17 A	10-Dec-18																
Maintenance & Shop Building	26-Jul-18	04-Jun-20																
Maintenance of Way Building	15-Feb-19	21-May-20																
Accessory Structures	31-May-19	13-May-20																
Trackwork	07-Sep-18	27-Mar-20																
Site Surfacing & Finishes	17-Oct-18	01-Jun-20																
Project Closeout	09-Nov-18	20-Aug-20																

Next Period's Activities

- Complete the work on the temporary trail construction, hazardous material abatement, construction perimeter fencing.
- Continue over the shoulder meeting with King County on the Sewer betterment design.
- Demolition of building on the site started in December and will continue the following periods.
- Conduct over the shoulder meetings with ST staff to advance the 60% designs.
- Modify the MDP with the latest comments from City of Bellevue and prepare the package for final submission.
- Mobilize the chitosan systems and setup the concrete crushing operations.
- Install the temporary power required for the chitosan system and energize the system.

Closely Monitored Issues

- *Site infiltration issue:* Contractor has submitted an RFC stating differing site conditions on the soil infiltration rate. ST has rejected this change order and currently working on partnering activities to resolve the issue and find a path forward.
- *Storm Water Management:* The Contractor has submitted an RFP claiming that AO issued by Department of Ecology (DOE) introduces new requirements that were not identified during bid. ST is currently having meetings with the Contractor to discuss and understand the issue.

Cost Summary

Present Financial Status	Amount
M200 Contractor – Hensel Phelps	
Original Contract Value	\$218,912,000
Change Order Value	\$662,050
Current Contract Value	\$219,574,050
Total Actuals (Incurred to Date)	\$14,160,890
% of Authorized Billed to Date	6.45%
Physical Percent Complete	0%
Authorized Contingency	\$21,891,200
Contingency Drawdown	\$662,050
Contingency Index	NA



Building Demolitions

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Link Light Rail Light Rail Vehicle Fleet Expansion



Project Summary

Scope: Design, manufacturing, assembly, inspection, testing and delivery of 152 low floor light rail vehicles for service requirements of Northgate, East Link and Lynnwood Link Extensions.

Budget: \$740.7 Million (Baseline September 2015)

Schedule: Project completion 3rd QTR 2024

Phase: Manufacturing



Graphic simulation of the new light rail vehicles.

Key Activities

- Conducted Automatic Passenger Counting System and Event Recorder Final Design Review (FDR).
- Commenced production of the vehicles' main and end girders at Siemens Sacramento Facility.

Closely Monitored Issues

- Resolution to jacking points on the LRV and modification to LRV Lift design in OMF East.
- Provision of Wi-Fi facilities at OMF East.
- Storage capacity on OMF Forrest Street in 2020 may limit Siemens LRV delivery schedule.

Project Cost Summary

The LRV Fleet Expansion Project has an approved baseline budget of \$740.7M. The 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. Both tables below are shown in millions.

In December 2017, the project incurred to date costs increased nominally by about \$11K. The incurred cost remains unchanged due to rounding at \$74.1M. The majority of this period's cost is attributed to design and inspection in the support of document reviews for the final design review (FDR).

Cost Summary by Phase

Project Phase	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation Vs. EFC
Administration	\$6.4	\$6.4	\$0.8	\$0.7	\$6.4	\$0.0
Construction Services	\$18.0	\$18.0	\$4.8	\$2.5	\$18.0	\$0.0
Vehicles	\$716.3	\$716.3	\$648.2	\$70.9	\$716.3	\$0.0
Total	\$740.7	\$740.7	\$653.8	\$74.1	\$740.7	\$0.0

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

Cost Summary by SCC

SCC Element	Baseline Budget	Authorized Project Allocation	Commitment to Date	Incurred to Date	Estimated Final Cost (EFC)	Authorized Allocation Vs. EFC
Construction Subtotal (SCC 10-50)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
60 ROW, Land, Existing Improvements	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
70 Vehicles	\$702.8	\$702.8	\$653.0	\$73.4	\$702.8	\$0.0
80 Professional Services	\$6.1	\$6.1	\$0.8	\$0.7	\$6.1	\$0.0
90 Contingency	\$31.7	\$31.7	\$0.0	\$0.0	\$31.7	\$0.0
Capital Total (SCC 10-90)	\$740.7	\$740.7	\$653.8	\$74.1	\$740.7	\$0.0

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

Cost Contingency Management

The project's baseline budget approved by the ST Board in September 2015 contained a total of \$78.0M of Total Contingency. The project's Total Contingency is currently at \$70.1M or about 12% of remaining work in the project.

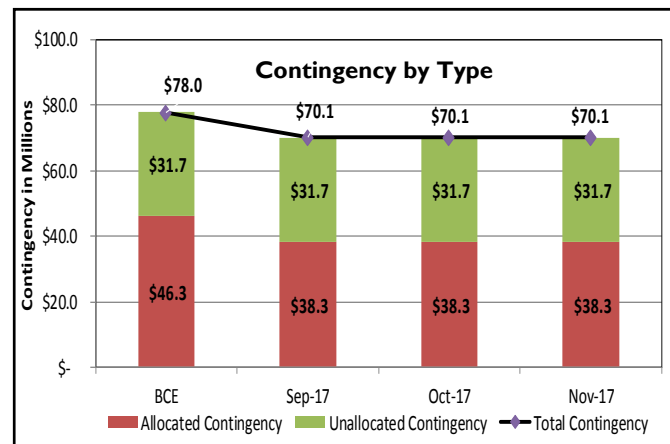
Design Allowance – This project contains \$0 design allowance.

Allocated Contingency – The project baseline's allocated contingency was \$46.3M. The current available allocated contingency is \$38.3M. No contingency was utilized this period.

Unallocated Contingency – The project baseline's unallocated contingency remained unchanged at \$31.7M.

Contingency Status	Baseline		Current	
	Amount	% of Total	Amount	% of Work Remaining
Design Allowance	\$ -	0.0%	\$ -	0.0%
Allocated Contingency	\$ 46.3	6.4%	\$ 38.3	6.6%
Unallocated Contingency	\$ 31.7	4.3%	\$ 31.7	0.0%
Total	\$ 78.0	10.7%	\$ 70.1	12.0%

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



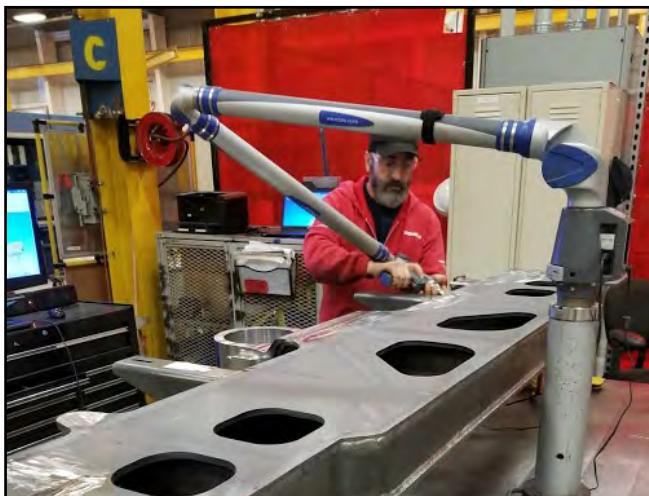
Project Schedule

The LRV Fleet Expansion project schedule is shown below. Siemens has completed the Preliminary Design Review (with the exception of the carbody design) and is currently working on Final Design Review. Carshell manufacturing was started on the main cross girder and coupler anchor subassemblies.

Activity Name	Start	Finish	17	2018	2019	2020	2021	2022	2023	2024
LRV Procurement Schedule	10-Oct-18 A	28-Aug-24								
LRV Engineering and Manufacture	10-Oct-18 A	11-May-22								
LRV Design Reviews, Manufacturing, and System Tests	10-Oct-18 A	11-May-22								
LRV Delivery Schedule	21-Nov-18	28-Aug-24								
LRV #1-122 (122 LRV Base Order)	21-Nov-18	14-Nov-22								
Delivery of 1st LRV		21-Nov-18								
Delivery of 40th LRV - Northgate Link Vehicle Deliveries Complete		13-Mar-20								
Delivery of 42nd LRV - Max Capacity at Existing OMF at capacity (104 LRVs)		02-Apr-20								
Final Acceptance of Vehicles		14-Nov-22								
Delivery of 122nd LRV - Final ST2 Delivery		12-May-22								
LRV #123 - 152 (30 LRV Options)- Change Order #4	28-Feb-24	28-Aug-24								
Delivery of 152nd LRV - Final Delivery		28-Feb-24								
Final Acceptance of Vehicles		28-Aug-24								
Project Closeout	14-Nov-22	28-Aug-24								
LRV #1-122 - Base Order	14-Nov-22	11-Feb-23								
ST-Controlled Float	14-Nov-22	11-Feb-23								
LRV Procurement Complete - LRV #1 - #122		11-Feb-23								
LRV #123 - #152 - CO #4	28-Aug-24	28-Aug-24								
LRV Procurement Complete - LRV #123 - #152		28-Aug-24								

Critical Path Analysis

Siemens is trending substantially ahead of their baseline schedule; the first LRV #001 delivery is trending 81 days ahead of the schedule target completion date. Delivery of all light rail vehicles required for Northgate Link operations is currently anticipated nearly one year ahead of the start of revenue service. The light rail vehicles requirements for East Link operations is anticipated at almost 18 months ahead of that revenue service.



Onsite inspection– QC inspection of car shell pieces.

Link Light Rail Staffing Report



Project Staffing – Link Light Rail Program – November 2017

Staffing variance reported in the following section is relative to the May 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
Program Manager – Cost Engineering	Project Controls	October 2017
Project Control Supervisor	South Corridor	October 2017
Principal Construction Manager	East Corridor	2017 Attrition*
Principal Construction Manager	East Corridor	2017 Attrition*
Principal Construction Manager	East Corridor	2017 Attrition*
Community Outreach Specialist	East Link Extension	2017 Attrition*

**Internal Promotion*

Recruiting is ongoing for the following DECM staff:

Position	Project Assignment	Planned Hire Date
Sr. Project Manager	Sounder Capital Program	2016 Attrition*
Sr. Project Manager	OMF East	2016 Attrition*
Construction Contracts Claims Sp.	Construction Management	2016 Attrition*
Executive Project Director	Executive Director's Office	2016 Reclass
Sr. Systems Engineer	Signals	2017 Attrition*
Sr. Mechanical Engineer	Systems Integration	2017 Attrition*
Deputy Project Director	Northgate Link Extension	2017 Attrition*
Civil Engineer	East Link Extension	2017 Attrition*
Civil Engineer	East Link Extension	2017 Attrition*
Corridor Design Manager	Federal Way Link Extension	2017 Attrition*
Principal Construction Manager	West Seattle-Ballard Link Ext.	2017 Attrition*
Construction Manager	East Corridor	2017 Attrition*
Construction Manager	East Corridor	2017 Attrition*
Construction Manager	East Corridor	2017 Attrition*
Community Outreach Specialist	South Corridor	2017 Attrition*
Project Manager	Non-Corridor Projects	2017 Attrition
Risk Engineer Program Manager	Project Controls	2017 Attrition
Sr. Architect	East Link Extension	2017 Attrition
Sr. Project Coordinator	East Link Extension	2017 Attrition
Design Technology Specialist	System Expansion Program	2017 Attrition
Deputy Construction Manager	West Seattle-Ballard Link Ext.	2017 Attrition

Project Staffing – Link Light Rail Program continued

Position	Project Assignment	Planned Hire Date
Supervisor Community Outreach	Central Corridor	2017 Attrition
Manager	Systems Testing	2017 Attrition
Sr. Systems Engineer	LRV Fleet Expansion	2017 Attrition
Sr. Leasing Document Coordinator	Property Management	2017 Attrition
Sr. Systems Engineer	Operations Technology	January 2017
Sr. Scheduling Engineer	Right-of-Way	April 2017
Project Coordinator	East Link Extension	October 2017
Project Manager	East Link Extension	October 2017
Project Manager	East Link Extension	October 2017
HCT Development Manager	East Link Extension	October 2017
Engineering Standards Program Mgr.	Civil & Structural Design	October 2017
Manager	Civil-Systems Integration	October 2017
Construction Manager	Systems	October 2017
Administrative Specialist	Construction Management	October 2017
Community Outreach Specialist	West Seattle-Ballard	October 2017
Sr. Architect	Lynnwood Link Extension	October 2017
Project Director	Bus Rapid Transit (BRT)	November 2017
Project Control Supervisor	South Corridor	November 2017

There were 605 (96% 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 November. Staffing was within 10% of plan for the Tacoma and Northgate Link Extensions. Staffing for the Federal Way, East, and Lynnwood Link Extensions was 84%, 160%, and 62% of plan respectively; staffing for the Operations and Maintenance Facility: East (OMF East) was 78% of plan.

Link Light Rail Staffing Report



Staffing variance to plan for the month and year to date summary by project follows.

Project	Staff Variance November 2017								Total (AVG. YTD)			
	Consultant Staff				Sound Transit Staff				Total (AVG. YTD)			
	FTE		Variance		FTE		Variance		FTE		Variance	
	Planned	Actual	FTE	% of Plan	Planned	Actual	FTE	% of Plan	Planned	Actual	FTE	% of Plan
Federal Way Link Extension	42.0	43.0	1.0	102%	37.9	24.3	-13.6	64%	79.9	66.2	-13.8	83%
Northgate Link Extension	71.1	78.0	6.9	110%	44.2	37.9	-6.3	86%	115.3	123.0	7.7	107%
OMF East	6.6	8.8	2.2	133%	16.7	9.4	-7.3	56%	23.3	10.7	-12.6	46%
East Link Extension	66.8	167.9	101.1	251%	72.1	54.1	-18.0	75%	138.8	166.4	27.6	120%
Lynnwood Link Extension	178.0	106.5	-71.5	60%	51.9	36.7	-15.2	71%	229.9	184.2	-45.7	80%
Tacoma Link Extension	24.0	25.3	1.3	106%	18.1	13.4	-4.7	74%	42.1	45.3	3.3	108%
Total	388.5	429.4	41.0	111%	240.9	175.8	-65.1	73%	629.3	595.8	-33.5	95%

Operations & Maintenance Facility: East Staffing

Total Internal and External Staffing – OMF East

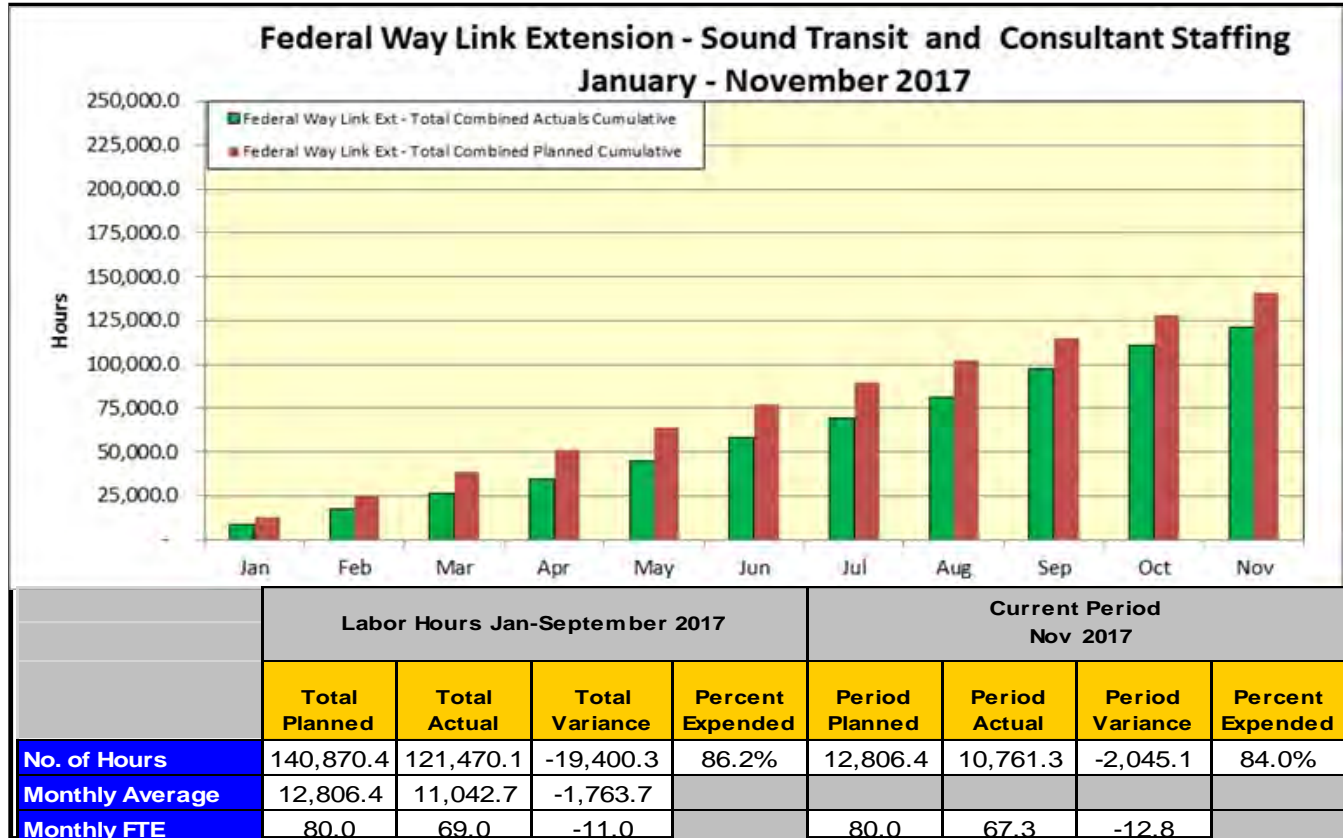
There were 9.4 internal and 8.8 consultant FTE participating in the Operations & Maintenance Facility: East project in November. This is 2% (0.4 FTE) below October staffing and 78% of plan. Average year-to-date staffing (11.3 FTE/mo.) is 54.2% (12.6 FTE/mo.) below plan. All consultant staffing in November was providing design-build project management services.

	Labor Hours to Date				Current Period Nov 2017			
	Total Planned	Total Actual	Total Variance	Percent Expended	Period Planned	Period Actual	Period Variance	Percent Expended
No. of Hours	40,990.4	19,961.0	-21,029.4	48.7%	3,726.4	2,904.5	-821.9	77.9%
Monthly Average	3,726.4	1,814.6	-1,911.8					
Monthly FTE	23.3	11.3	-11.9		23.3	18.2	-5.1	

Federal Way Link Extension Staffing

Total Internal and External Staffing – Federal Way Link Extension

There were 67.3 (84% of plan) consultant and internal staff assigned to the Federal Way Link Extension in November including 43 consultant FTE (102% of plan) and 24.3 internal FTE (64% of plan). Staffing was 20% (17 FTE) below October staffing; cumulatively from January 2017 average staffing is trending 14% (11 FTE/mo.) below plan. All consultant staff is supporting preparation of design-build (D-B) procurement documents.



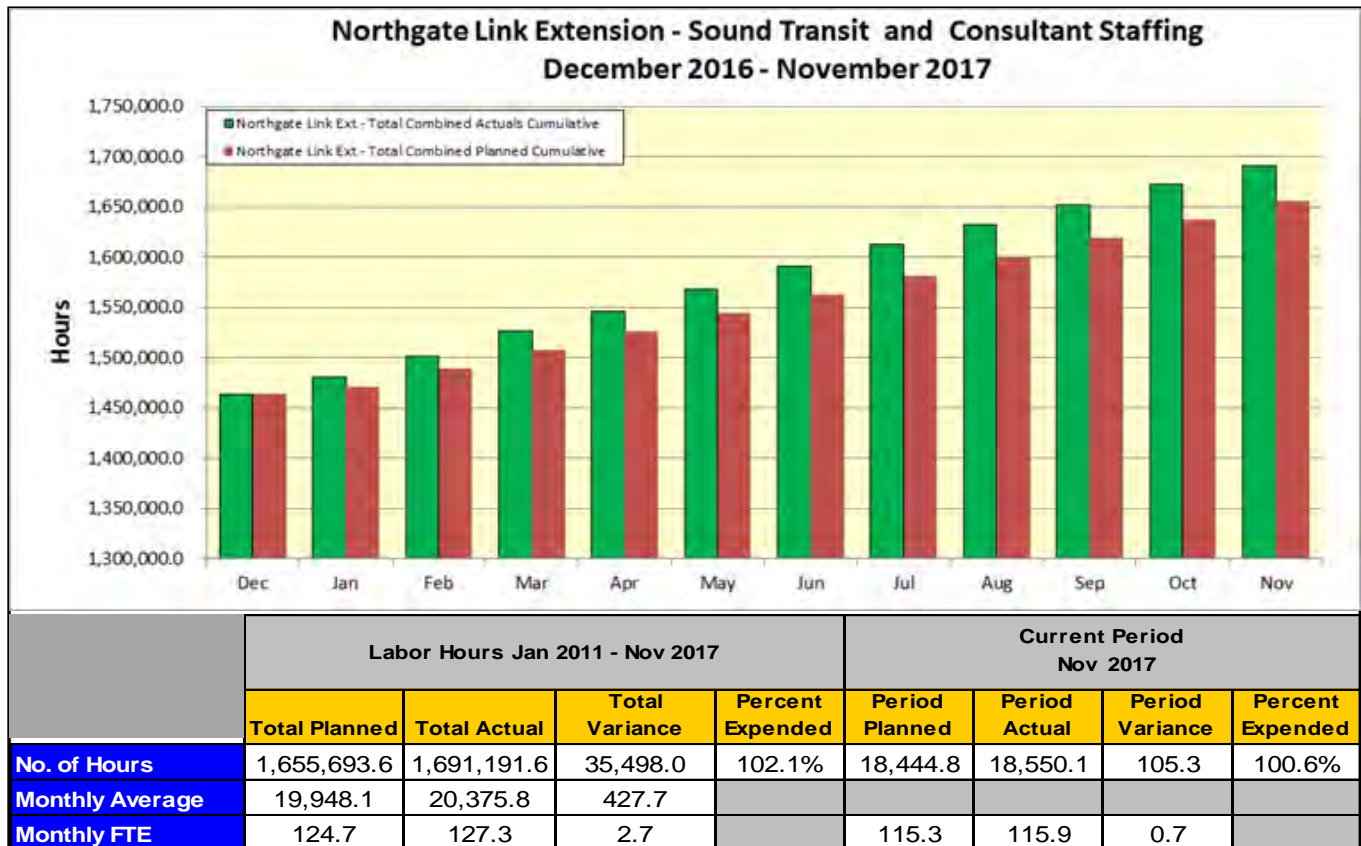
Link Light Rail Staffing Report



Northgate Link Extension Staffing

Total Internal and External Staffing – Northgate Link Extension

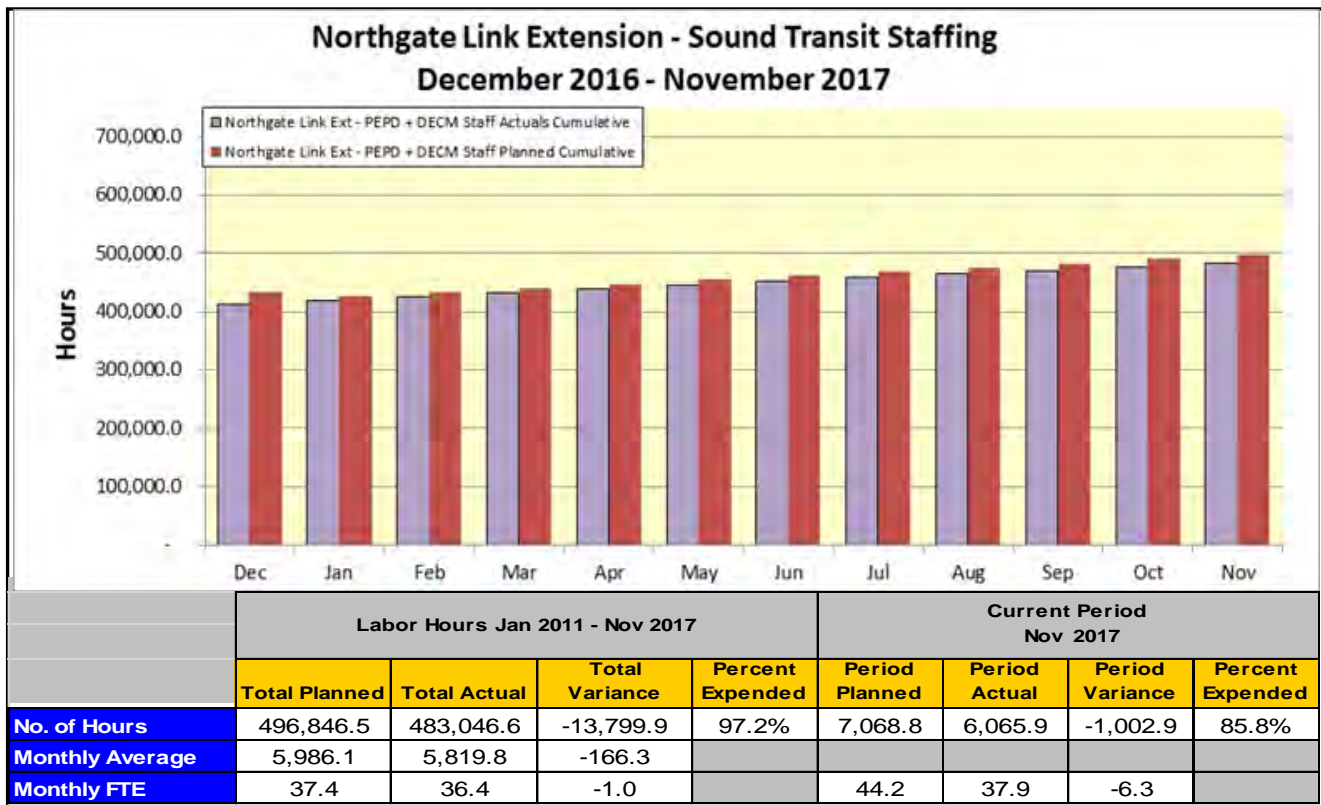
During November 115 internal and consultant FTE were assigned to the Northgate Link Extension. This is 10% (13.1 FTE) below October staffing and is 1% (0.7 FTE) above plan. Average year-to-date staffing (123 FTE/mo.) is 7% (7.7 FTE/mo.) above plan; cumulatively since January 2011 average monthly staffing is trending with plan.



Northgate Link Extension Staffing

Internal Resource Commitments to Northgate Link Extension

Internal staffing in November (37.9 FTE) decreased 10% (3.8 FTE) from October and was 14% (6.3 FTE) below plan. Cumulatively, since January 2011, average monthly internal staffing (36.4 FTE/mo.) is 2.8% (1 FTE/mo.) below plan.



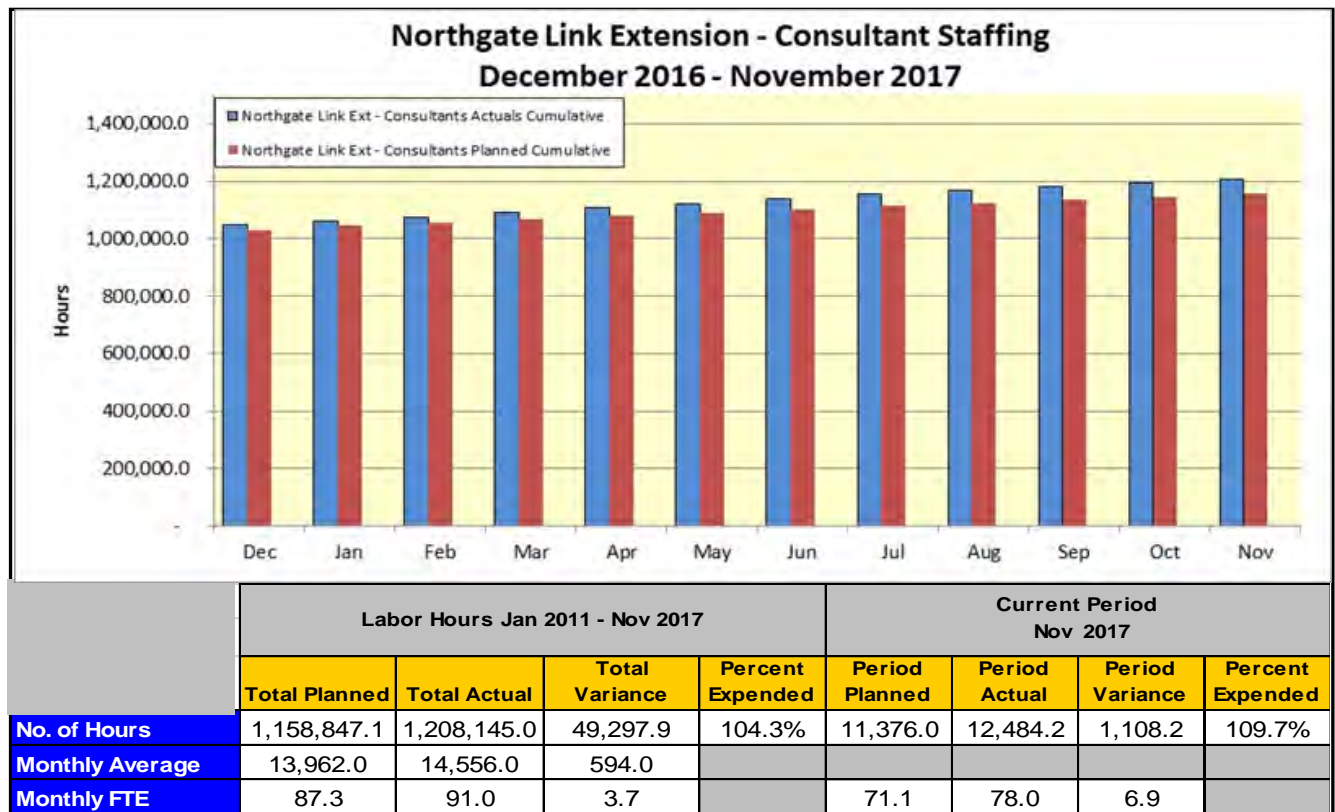
Link Light Rail Staffing Report



Northgate Link Extension Staffing

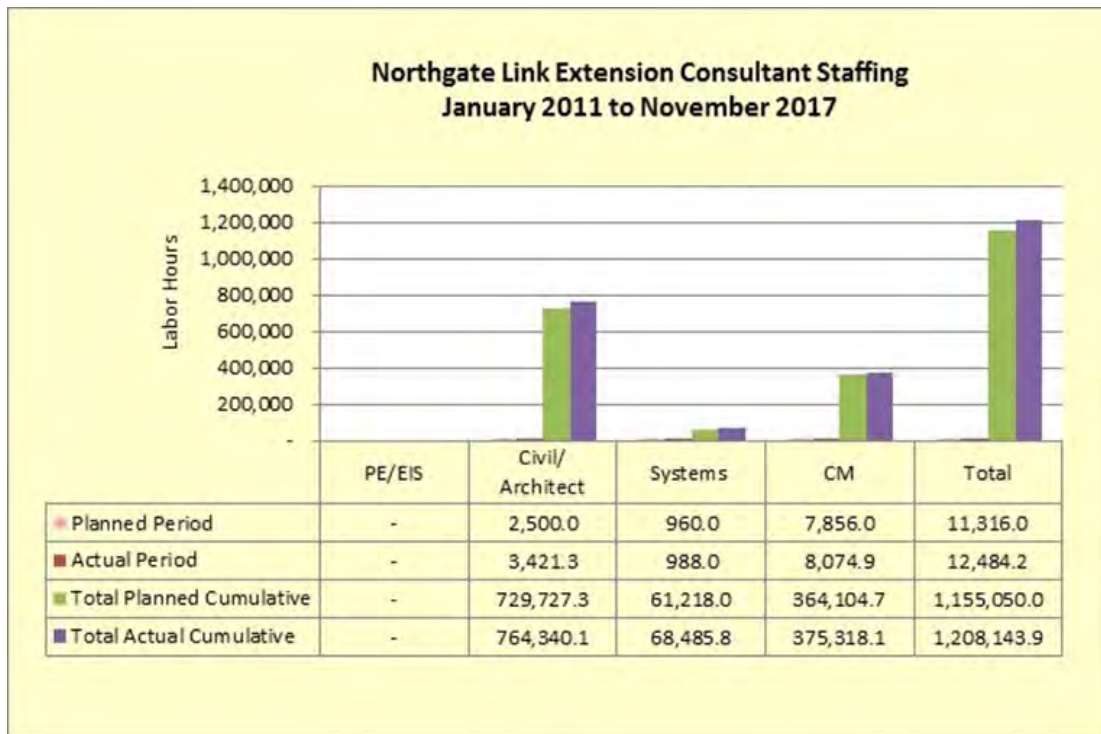
Consultant Resource Commitments to Northgate Link Extension

In November 78 consultant FTE were assigned to the Northgate Link Extension; consultant staffing was 11% (9.4 FTE) below staffing in October and was 10% (6.9 FTE) above plan. Cumulatively, since January 2011, average monthly consultant utilization (91 FTE/mo.) is trending 4% (3.7 FTE/mo.) above plan.



Northgate Link Extension Staffing

Consultant Resource Commitments to Northgate Link Extension



Consultant utilization by discipline follows:

- Civil/architecture consultant utilization in November (21.4 FTE) was 24.5% (6.9 FTE) below October staffing and was 34% (5.4 FTE) above plan. Cumulatively since January 2011, average civil engineering/architecture consultant staffing of 58 FTE/mo. is trending 5% above plan.
- Systems consultant utilization in November (6.2 FTE) was 18% (1.4 FTE) below October and was 3% (0.2 FTE) above plan. Cumulatively, since January 2011, average monthly Systems consultant staffing (5.2 FTE/mo.) is trending 6% above plan.
- CM consultant staffing in November (50.5 FTE) was 2% (1 FTE) below October staffing and was 3% (1.4 FTE) above plan. Cumulatively, since January 2011, average monthly CM consultant staffing (28 FTE/mo.) is 3% (0.8 FTE/mo.) above plan.

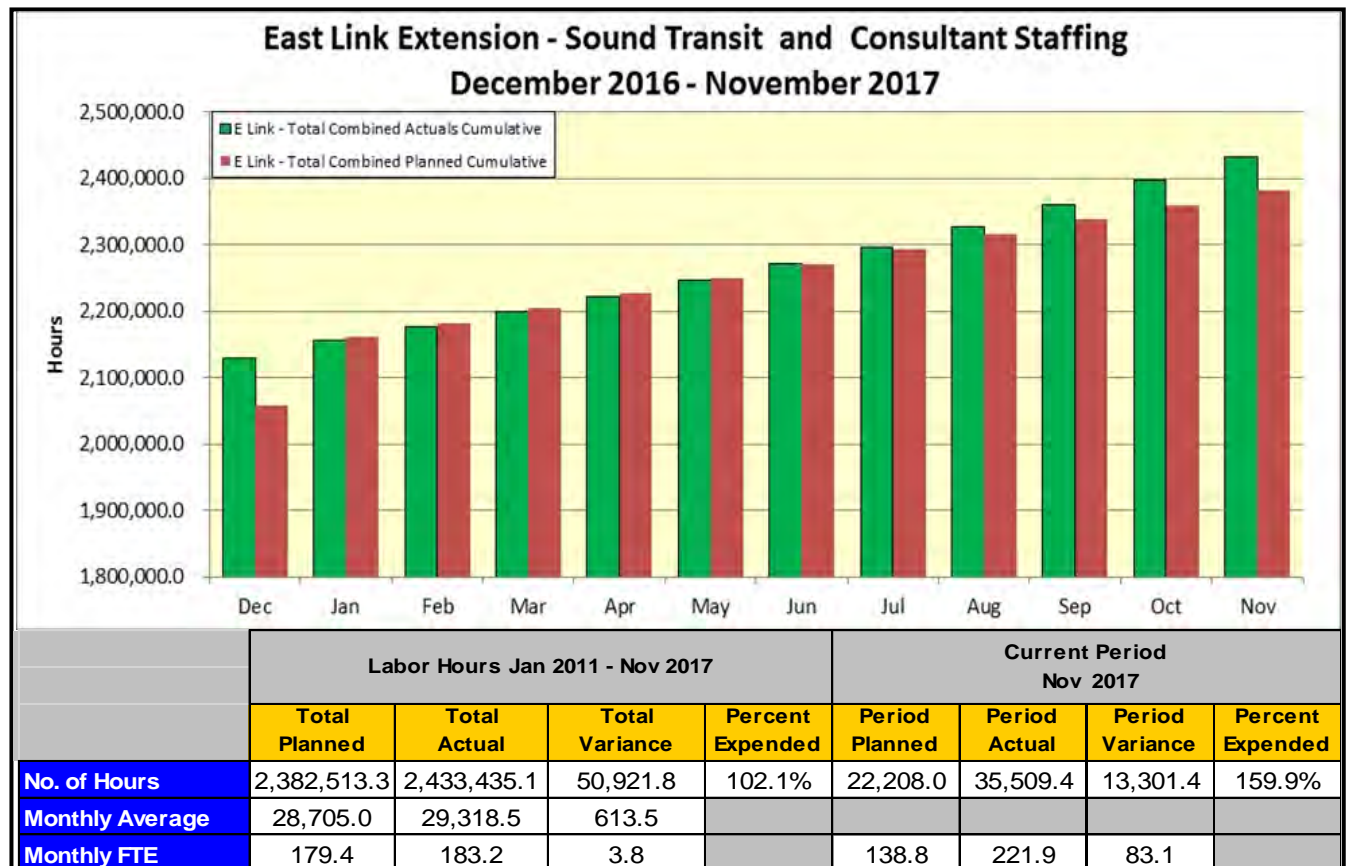
Link Light Rail Staffing Report



East Link Extension Staffing

Total Internal and External Staffing – East Link Extension

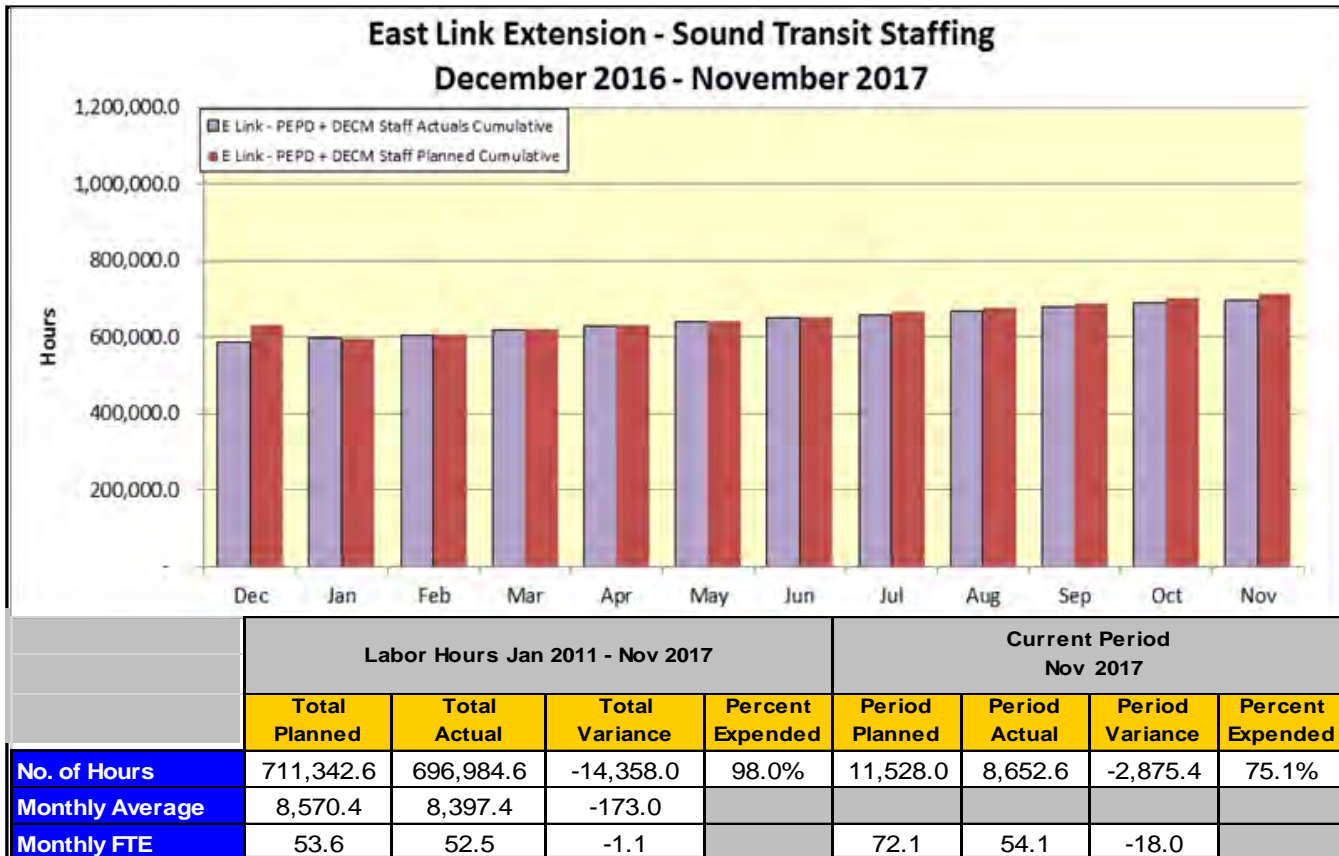
Staffing for the East Link Extension in November (221.9 FTE) decreased 7% (15.8 FTE) from October and was 60% (83.1 FTE) above plan. Average year-to-date staffing of 166.4 FTE/mo. is 20% (27.6FTE) above plan. Cumulatively since January 2011, average monthly staffing of 183.2 FTE/mo. is trending with plan.



East Link Extension Staffing

Internal Resource Commitments to East Link Extension

During November internal staffing for the East Link Extension (54.1 FTE) was 13% (7.2 FTE) below October staffing and was 25% (18 FTE) below plan. Cumulatively, since January 2011, average monthly internal staffing (52.5 FTE/ mo.) is trending with plan.



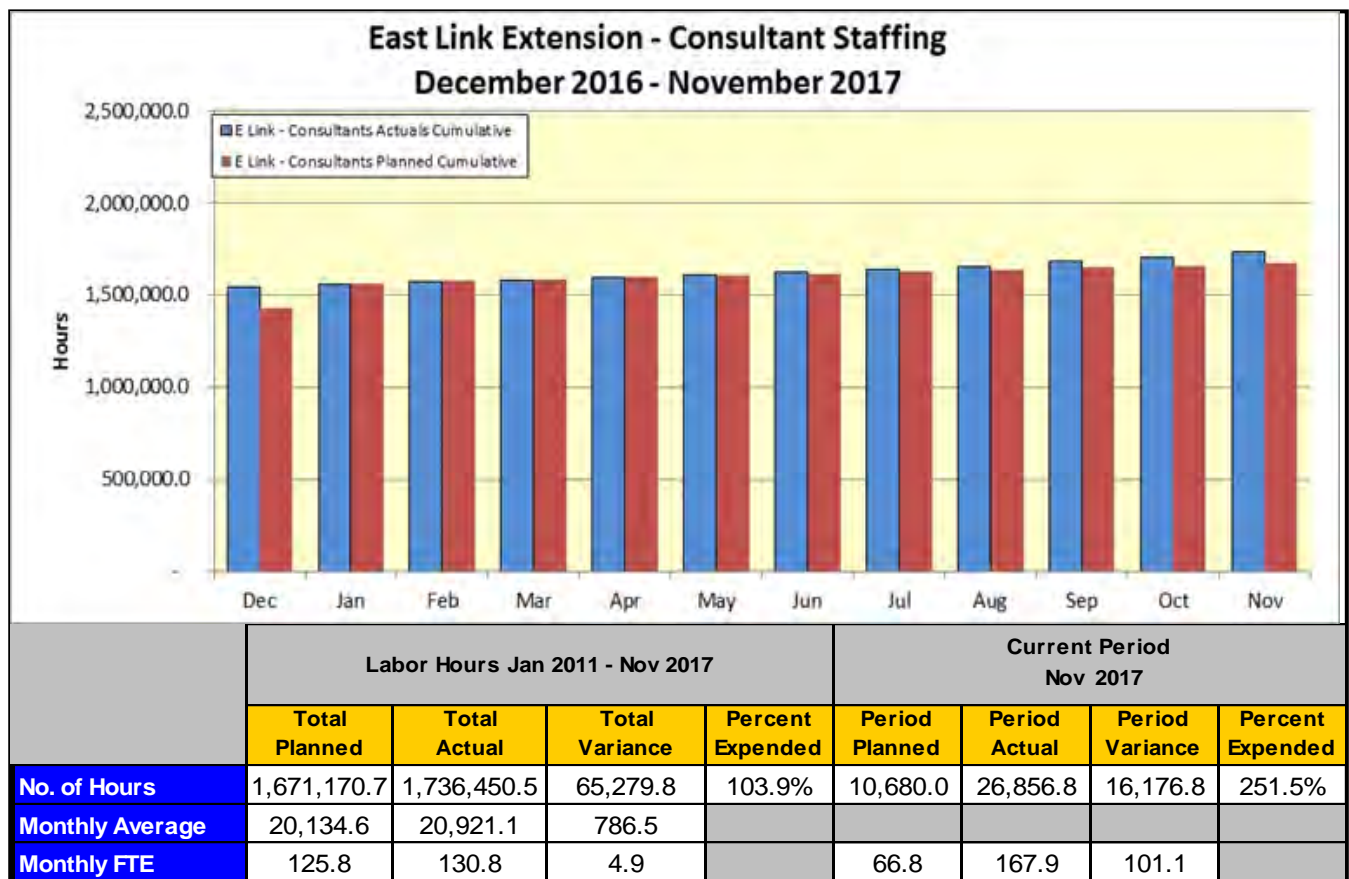
Link Light Rail Staffing Report



East Link Extension Staffing

Consultant Resource Commitments to East Link Extension

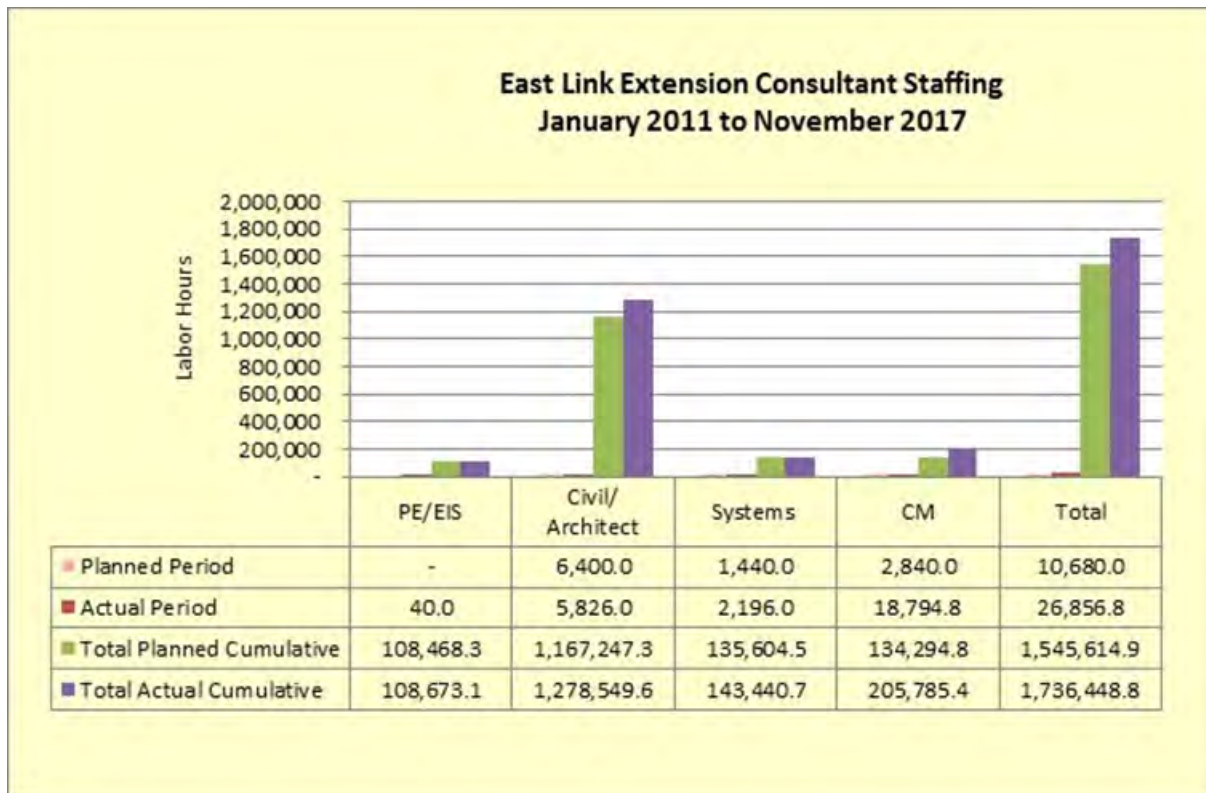
There were 167.9 consultant FTE assigned to the East Link Extension during November. Consultant staffing was 5% (8.6 FTE) below October and 151% (101.8 FTE) above plan. Cumulatively since January 2011, average monthly consultant staffing (130.8 FTE/mo.) is trending with plan.



East Link Staffing

Consultant Resource Commitments to East Link, continued

In November construction management consultant staffing (117.5 FTE) on the East Link Extension was 70% of consultant staffing; civil engineering consultant staffing (36.4 FTE) comprised 22% of consultant staffing. There were 13.7 and 0.3 consultant FTE supporting systems design and preliminary engineering, respectively.



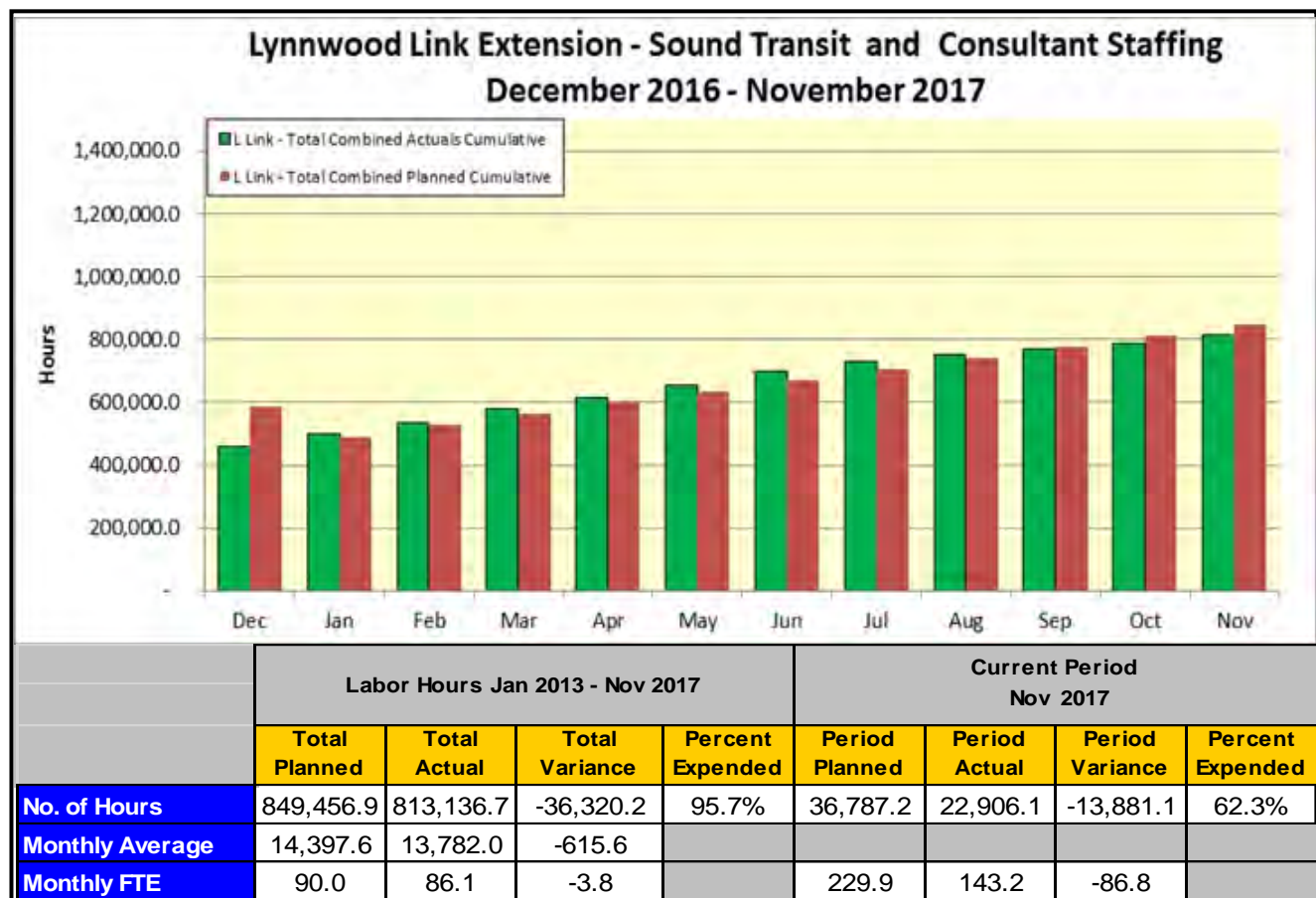
Link Light Rail Staffing Report



Lynnwood Link Extension Staffing

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

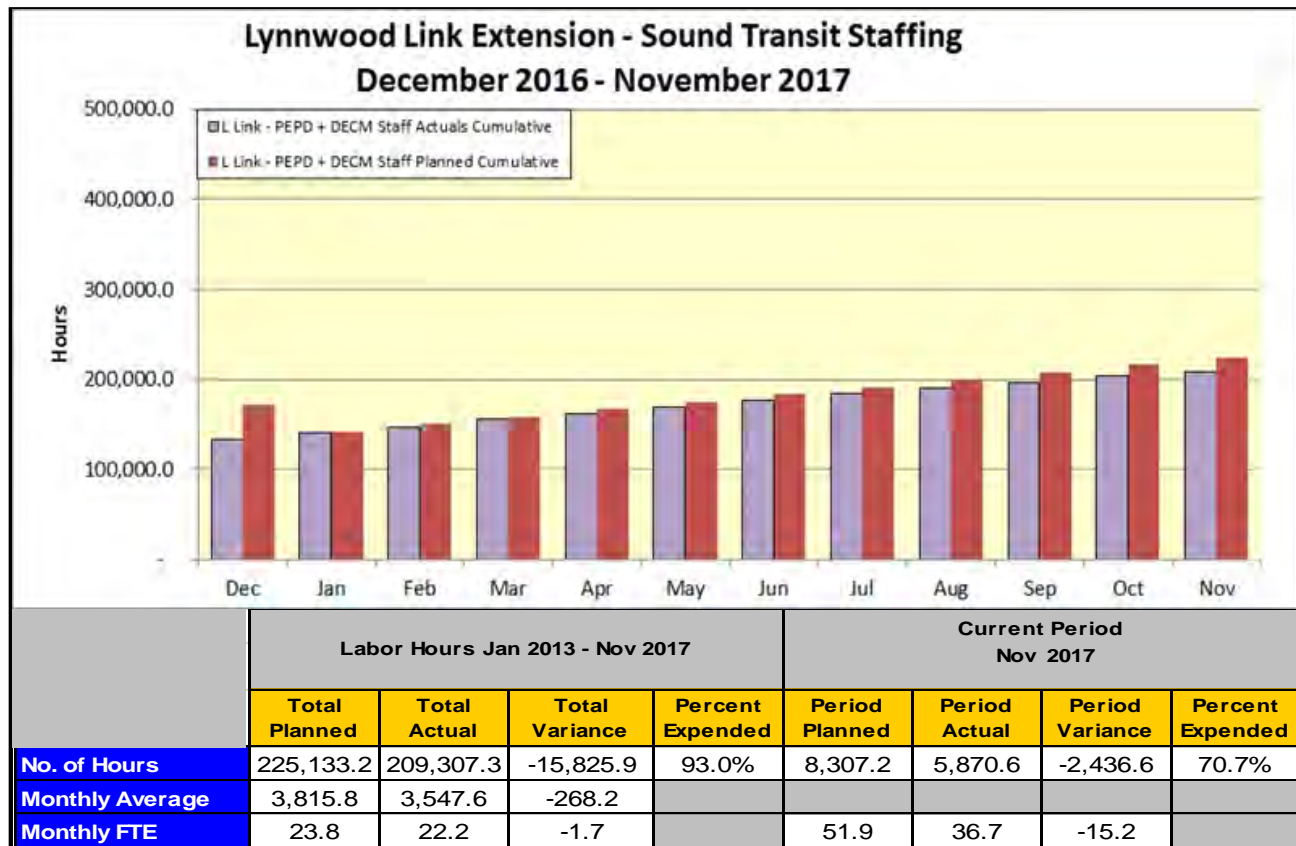
During November Lynnwood Link Extension staffing was 143.2 FTE (62% of, or 86.8 FTE below plan). There were 106.5 consultant FTE (40% below plan) and 36.7 internal FTE (71% of plan). Average year-to-date staffing of 184.2 FTE/mo is trending 20% (45.7 FTE/mo.) below plan; cumulatively since January 2013 staffing is averaging 86.1 FTE/mo. and is trending with plan.



Lynnwood Link Extension Staffing

Internal Staffing—Lynnwood Link

During November internal staffing for the Lynnwood Link Extension (36.7 FTE) was 8% (3.1 FTE) below October staffing and 30% (15.2 FTE) below plan. Cumulatively, since January 2013, average monthly internal staffing (22.2 FTE/mo.) is trending within 10% of plan.



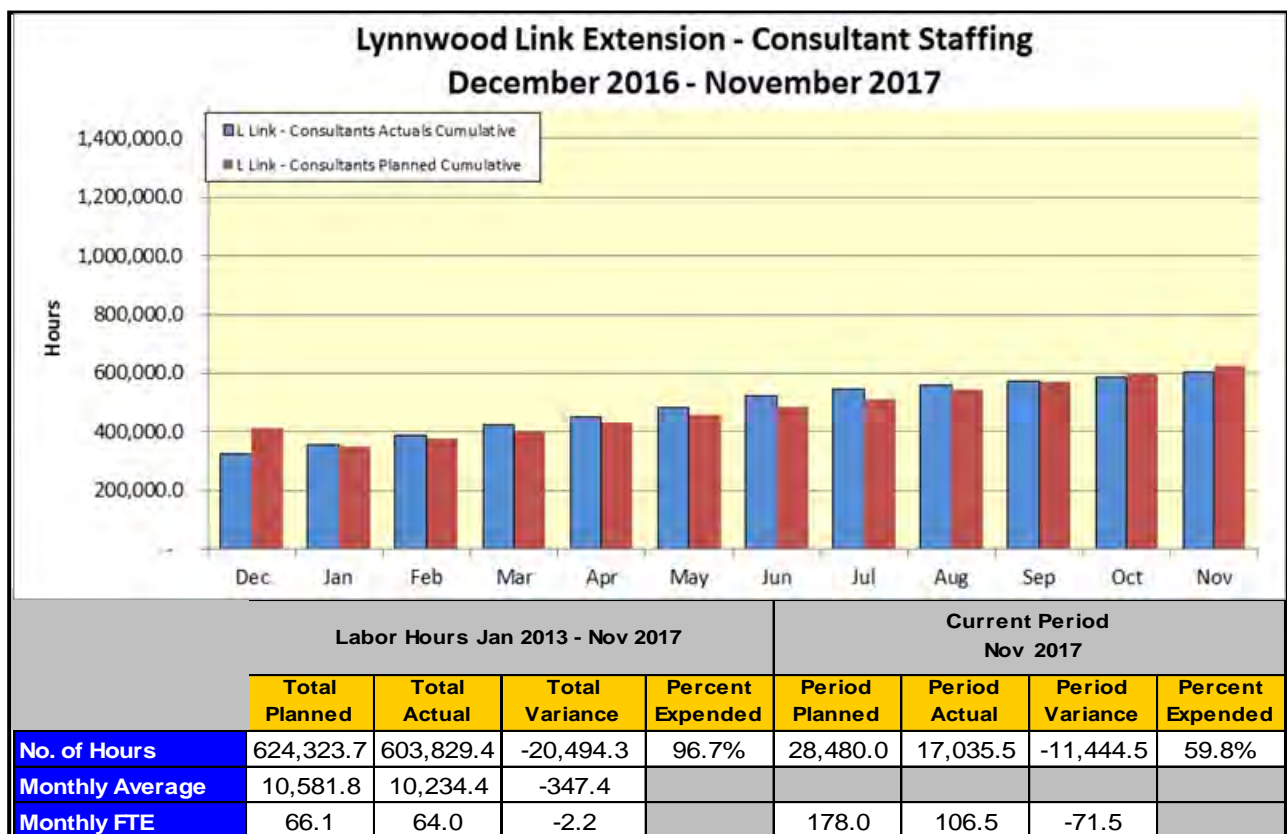
Link Light Rail Staffing Report



Lynnwood Link Expansion

Consultant Staffing—Lynnwood Link

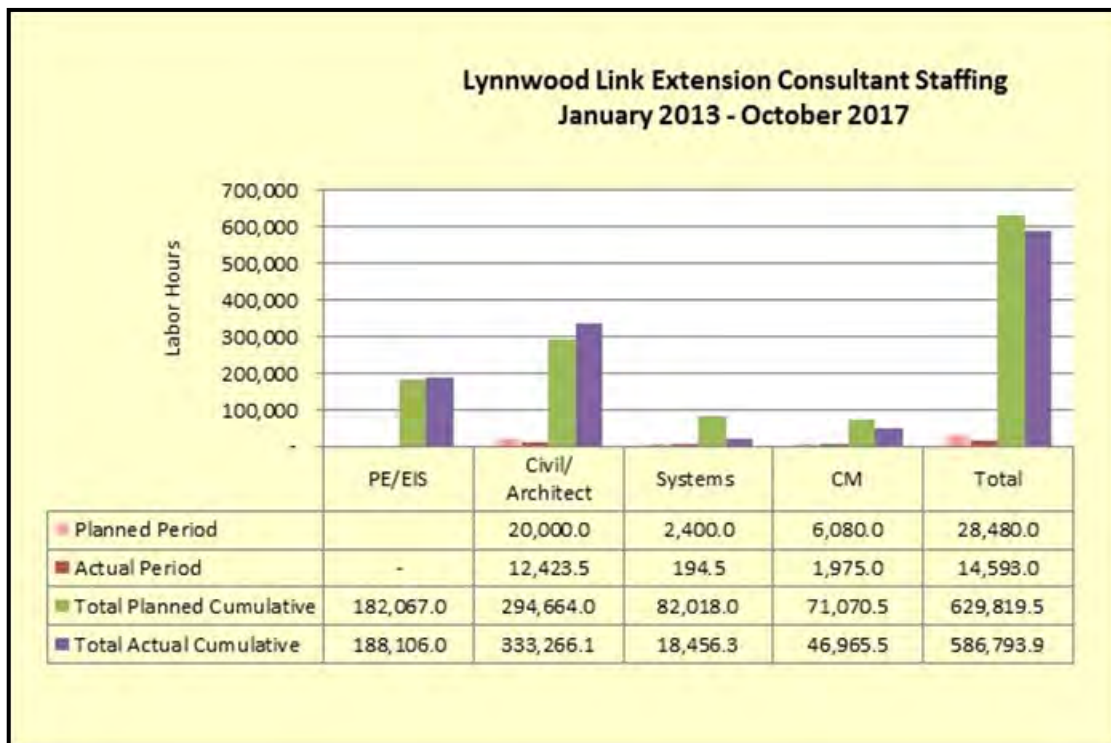
There were 106.5 consultant FTE assigned to the Lynnwood Link Extension during November. Consultant staffing increased 17% (15.3 FTE) from October and was 40% (71.5 FTE) below plan. Cumulatively since January 2013, average monthly consultant staffing (64 FTE/mo.) is trending with plan.



Lynnwood Link Extension Staffing

Consultant Resource Commitments to Lynnwood Link

Eighty-seven percent (92.7 FTE) of the Lynnwood Link consultant staffing were supporting civil final design. Additional consultant staffing (13.5 FTE or 13% of consultant staffing) provided construction management and systems design (0.2 FTE) of consultant staffing) support.



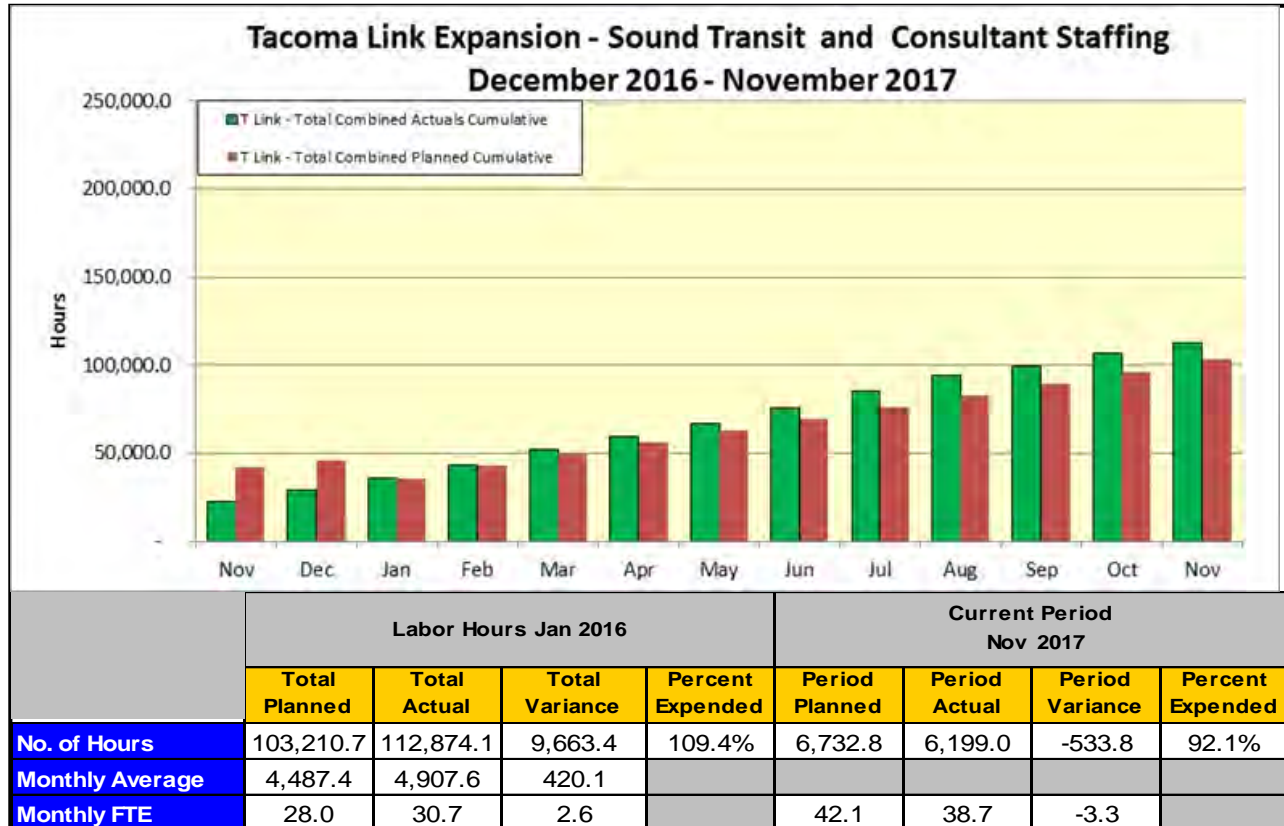
Link Light Rail Staffing Report



Tacoma Link Expansion

Total Internal and Consultant Staffing – Tacoma Link Expansion

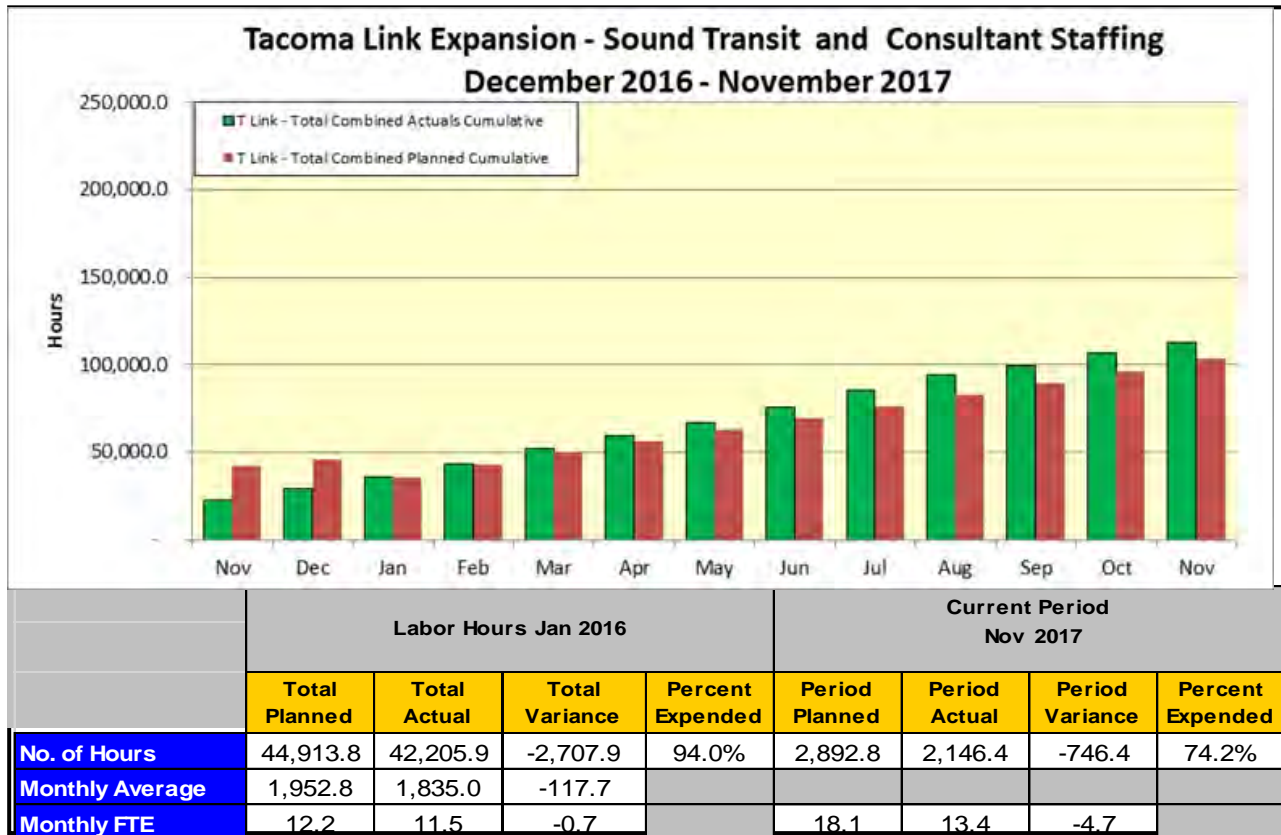
During November there were 38.7 FTE (92% of plan) assigned to the Tacoma Link Expansion including 25.3 consultant FTE (6% above plan) and 13.4 internal FTE (26% below plan). Average year-to-date staffing (45.3 FTE/mo.) is 8% (3.3 FTE/mo.) above plan; cumulatively since January 2016 staffing (30.7 FTE/mo.) is trending 9% (2.6 FTE/mo.) above plan.



Tacoma Link Expansion

Internal – Tacoma Link Expansion

During November internal staffing for the Tacoma Link Extension (13.4 FTE) was 8% (3.1 FTE) below October staffing and was 26% (4.7 FTE) below plan. Cumulatively, since January 2016, average monthly internal staffing (11.5 FTE/mo.) is trending 4% (0.7 FTE/mo.) below plan.



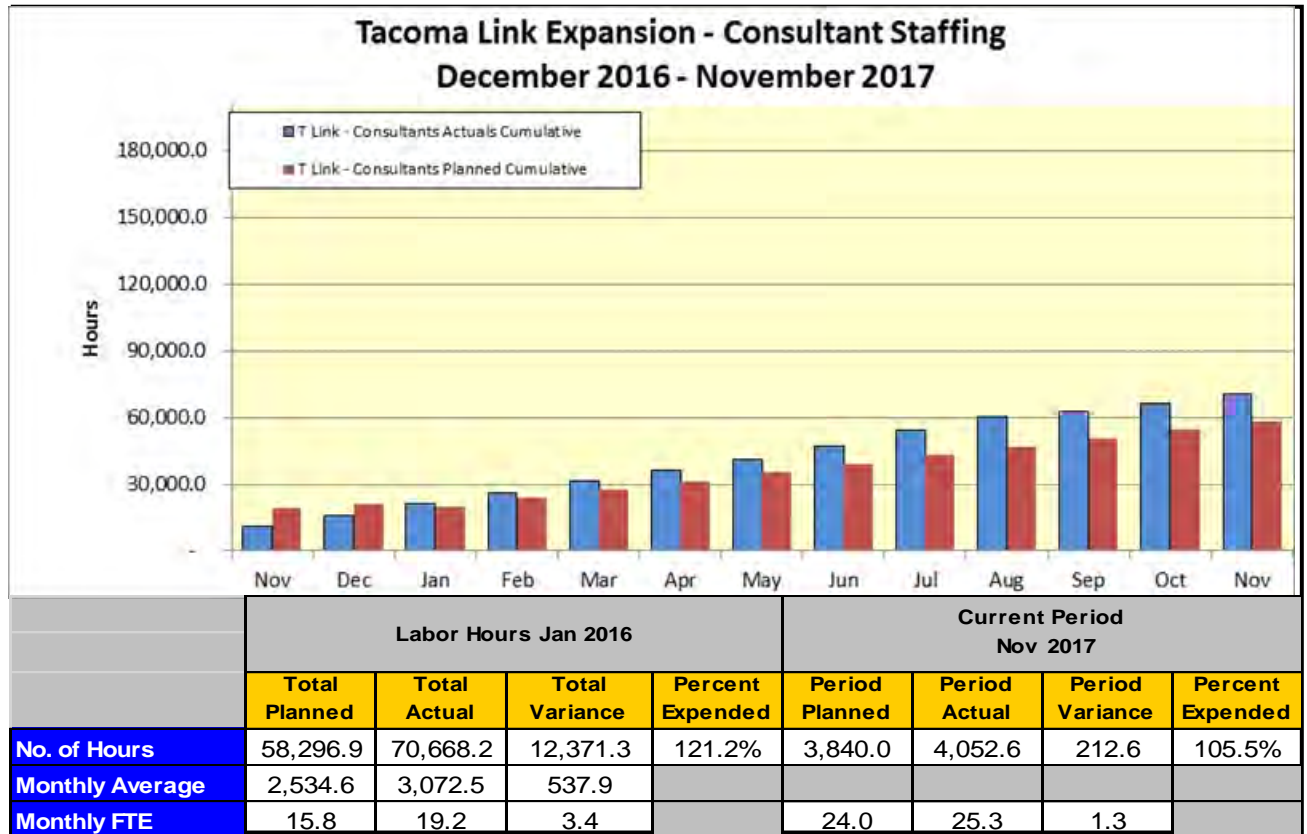
Link Light Rail Staffing Report



Tacoma Link Expansion

Consultant Resource Commitments – Tacoma Link Expansion

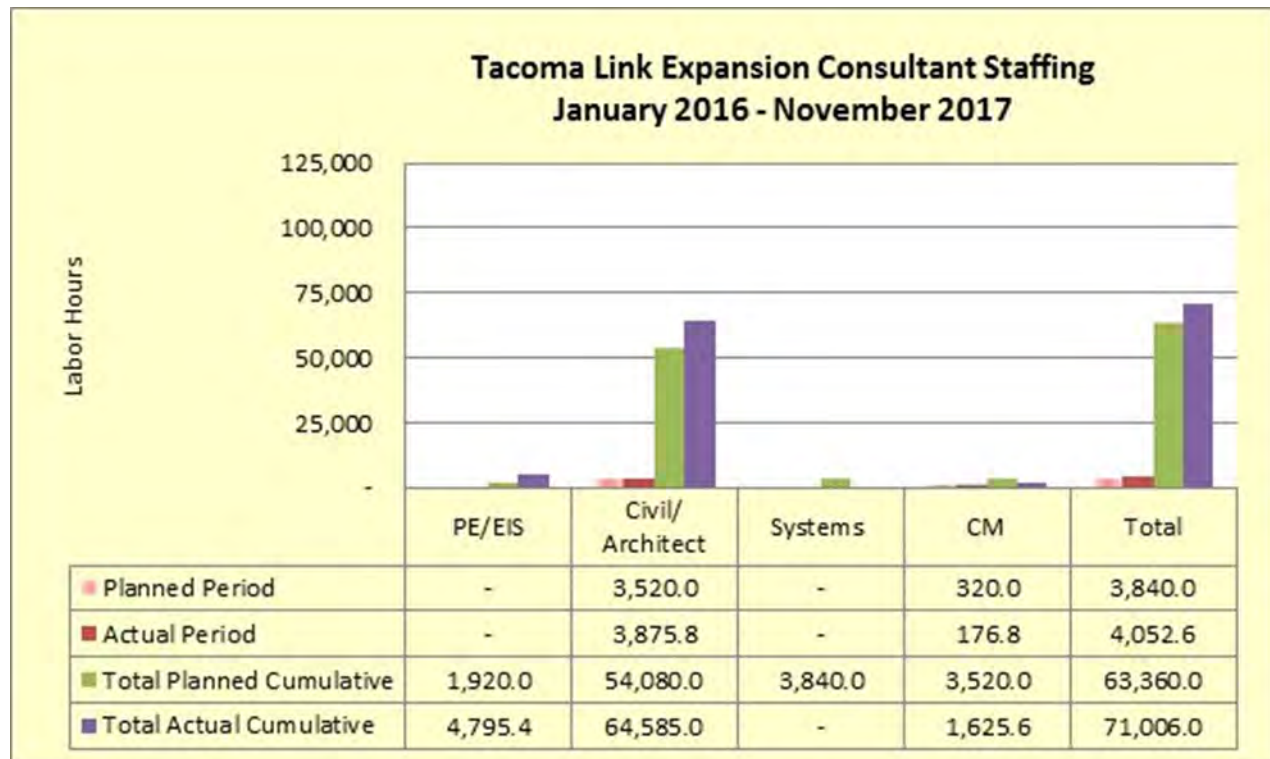
There were 25.3 consultant FTE assigned to the Tacoma Link Extension during November. Consultant staffing was 6% (1.3 FTE) above plan and was 4% (1.1 FTE) above October staffing. Cumulatively since January 2016, average monthly consultant staffing (19.2 FTE/mo.) is trending 21% (3.4 FTE/mo.) above plan.



Tacoma Link Expansion

Consultant Resource Commitments to Tacoma Link Expansion

Ninety-six percent of consultant staff assigned to the Tacoma Link Extension (24.2 FTE) were supporting final design; there was 1.1 FTE providing construction management support.



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
LNTF	Limited Notice to Proceed

ACRONYMS, continued

LRRP	Light Rail Review Panel
LRT	Light Rail Transit
LRV	Light Rail Vehicle
LTK	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

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

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