



## Motion No. M2020-54

### Increase Contract Contingency for Federal Way Link Extension Design-Build Construction Contract

Meeting:	Date:	Type of action:	Staff contact:
System Expansion Committee Board	09/10/2020 09/24/2020	Recommend to Board Final action	Ron Lewis, DECM Executive Director <b>Joseph Gildner, Acting Executive Project Director – Federal Way Link Extension</b>

### Proposed action

Authorizes the chief executive officer to increase the contract contingency for the Federal Way Link Extension design-build contract with Kiewit Infrastructure West Company in order to incorporate Alternative Technical Concepts and Notices to Designers through cost-effective measures that reduce construction risk, enhance operational safety, and/or improve passenger experience in the amount of \$100,000,000 for a new total authorized contract amount not to exceed \$1,513,720,000.

### Key features summary

- This design-build contract includes final design and construction of civil facilities and systems work for 7.8 miles of light rail extending from the Angle Lake light rail station in the City of SeaTac to the Federal Way Transit Center.
- All funding required to implement this action is within the Federal Way Link Extension (FWLE) Adopted Baseline Budget. The Baseline Budget includes an Alternative Technical Concept (ATC) / Notice to Designers (NTD) allowance of \$100,000,000 as part of the construction phase. This allowance was established in the Budget to:
  - Support the design-build contract delivery method and its use of the ATC process to reduce risk and associated cost and schedule impacts;
  - Complement the project's goals and objectives; and
  - Utilize the agency's NTD process to incorporate emerging lessons learned from ongoing design and construction activities throughout the capital program.
- This action would increase the contract contingency for the design-build contract with Kiewit by \$100,000,000 using the ATC/NTD allowance within the Federal Way Link Extension baseline budget. This will allow Sound Transit and Kiewit to refine and implement the ATCs and NTDs as part of the planned execution of this contract.
- This action will cover NTDs in the FWLE design-build contract so that lessons learned on the design of Sound Transit infrastructure across the capital program can be captured and integrated into the FWLE design. Twelve NTDs have been identified since execution of the FWLE design-build contract including a recent update to the Design Criteria Manual for the three stations and garages, design refinements for the tail tracks, and additional conduit for future rooms at southern end of the alignment. The addition of the NTDs is estimated to cost approximately \$2.5 million.

- The Kiewit design-build team identified 32 ATCs that Sound Transit considered for possible inclusion into the contract. Currently, 16 have been approved and incorporated into the contract, and 16 have been conditionally-approved, pending additional design development and refinement.
- This action would also authorize staff to proceed with two major ATCs to achieve the objectives of reducing construction risk, enhancing operational safety and/or improving passenger experience:
  - An ATC at the Midway Landfill that modifies the mainline trackway to an at-grade alignment passing along the perimeter of the retired landfill, versus an elevated guideway passing through the retired landfill, to reduce construction and long-term risks. This ATC is estimated to cost approximately \$37 million (of which \$13.7 million is being contributed by the City of Seattle and WSDOT under agreements with Sound Transit). Maintaining the elevated guideway would have cost \$50-60 million and would have retained the construction and long-term risk of building over the landfill.
  - An ATC at the S. 272nd/Star Lake station that modifies the elevated center-platform station to a lower side-platform station to enhance safety and passenger experience for riders transferring to/from buses or accessing light rail from the parking facility. This ATC is estimated to cost approximately \$11.4 million. Maintaining the elevated center-platform station would have cost approximately \$20 million.
- In addition to the two ATCs authorized under this action, Kiewit and Sound Transit will continue to develop and potentially implement the other 14 conditionally approved ATCs including an ATC for the Federal Way Transit Center to enhance safety and passenger experience for passengers connecting to the station via bus, or from the parking area.
- Staff will return to the System Expansion Committee and/or Board for approval of any future expenditures from the ATC/NTD allowance that exceed \$5,000,000 for individual improvements, or changes not currently within the baseline budget or schedule, or not within the project definition approved by the Board or consistent with ST2/ST3.

## Background

The FWLE adds approximately 7.8 miles of light rail from the existing Angle Lake light rail station at South 200th Street in the City of SeaTac to the Federal Way Transit Center. The extension generally parallels State Route 99 and Interstate 5, with stations at Kent/Des Moines, South 272nd/Star Lake, and the Federal Way Transit Center. New parking structures will be constructed at each of the three stations. Revenue service is scheduled to begin in 2024.

The ST2 Plan, approved by voters in 2008, included environmental studies and preliminary engineering design for light rail connecting SeaTac to Des Moines, Kent, and Star Lake. The ST2 Plan also included construction of light rail from the Angle Lake Station to the Kent/Des Moines Station and the 272nd Station. In 2016 the voters approved the ST3 Plan, which provided financing to extend the light rail to the Federal Way Transit Center.

The FWLE Final Environmental Impact Statement was issued on November 18, 2016, pursuant to the State Environmental Policy Act (SEPA) and National Environmental Policy Act (NEPA) and completing the SEPA process. The Sound Transit Board selected the project route, profile, and stations on January 26, 2017. The Federal Transit Administration (FTA) issued a Record of Decision on March 6, 2017, and the Federal Highway Administration issued a Record of Decision on March 9, 2017, completing the NEPA process. In April 2020 the FTA reviewed additional environmental information related to project refinements proposed since the Final EIS was published, including some refinements stemming from approved ATCs. The FTA determined no additional environmental review is required. Environmental review of other refinements proposed since the Final EIS is ongoing. All ATCs, utility work and other

scope items not previously evaluated will undergo environmental review prior to them being incorporated into the design-build contract for final design and construction.

On September 27, 2018, the Sound Transit Board approved the project baseline schedule and budget in Resolution No. R2018-30. On June 7, 2019, Sound Transit executed a design-build contract with Kiewit for design and construction of the FWLE. This contract started with a limited Notice to Proceed (NTP) focusing on the start of the design work. On May 4, 2020, Sound Transit executed a NTP with some conditions, focusing on the start of construction.

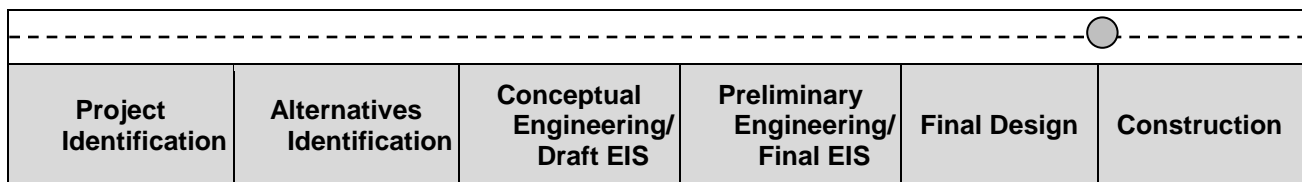
At time of contract execution in 2019, the scope of the contract included a number of approved- and conditionally-approved ATCs. Sound Transit allows proposers to submit ATCs to promote innovation and maintain flexibility in the procurement process. In order to be conditionally-approved or approved, an ATC must be deemed, in Sound Transit’s sole discretion, to provide a contract that is “equal or better” on an overall basis than the contract would be without the proposed ATC. Additionally, ATCs may modify the contract’s scope, schedule, and/or amount, and some of the contract requirements.

Kiewit proposed 53 ATCs for this contract during the procurement phase. Of the 53, Sound Transit included a total of 32 ATCs in the Kiewit contract. 16 ATCs were approved, and 16 ATCs were conditionally-approved. Since contract execution in June 2019, all approved and conditionally approved ATCs have advanced in conjunction with the ongoing design work.

Aside from the two ATCs authorized under this action, staff will return to the System Expansion Committee and/or Board for approval of any future expenditures from the ATC/NTD allowance that exceed \$5,000,000 for individual improvements, or changes not currently within the baseline budget or schedule, or not within the project definition approved by the Board or consistent with ST2/ST3.

Following the execution of the design-build contract, Sound Transit issued 12 NTDs. The NTD process amends the agency’s technical design criteria between the formal revision cycles for the Design Criteria Manual. This process supports the consistent application of emerging changes to the technical requirements for both the facility infrastructure and systems elements, and captures and implements design lessons learned to ensure consistency of system-wide technical requirements. This action would cover the 12 NTDs, which are estimated to cost approximately \$2.5 million.

**Project status**



Projected completion date for final design and construction: 4Q 2024

Project scope, schedule and budget summary are located on page 79 of the June 2020 Agency Progress Report – Capital Programs.

**Procurement information**

A Request for Qualifications (RFQ) was issued on April 12, 2018. On June 7, 2018, three Statements of Qualifications (SOQ) were received. On June 27, 2018, the evaluation panel determined that the three firms that submitted SOQ’s were qualified and within the competitive range. On August 17, 2018, Sound Transit issued a draft Request for Proposal (RFP) to the three shortlisted proposers for their review.

The final RFP was issued on September 14, 2018. During the RFP period, Sound Transit held individual one-on-one meetings with the proposers to facilitate development of ATCs. Offerors were

encouraged to develop ATCs to promote innovative and efficient strategies for successful execution of the project. ATCs that were approved or conditionally-approved by Sound Transit could subsequently be included in an offeror's proposal. In total 104 ATCs were reviewed by the project team and each offeror included some of the approved/conditionally-approved ATCs in their proposals.

On March 20, 2019, Sound Transit received proposals from each of the three offerors. An evaluation panel was convened to review technical proposals. Scored criteria included outreach efforts and commitments to small businesses; technical approach to design and construction, organization and management, and schedule and risk. Additional pass/fail criteria included financial capacity and capability to perform the work. The evaluation of these technical criteria was performed independent of any consideration of price, as the price proposals were not opened until technical evaluations were complete and technical scores were established for each offeror. Proposal prices were scored in accordance with the price scoring equation included in the RFP.

Based on the technical evaluation and the price score equation, Kiewit Infrastructure West Co. was determined to be the highest-ranked responsive and responsible proposer. Moreover, Kiewit's price of \$1.285 billion is below Sound Transit's upset price of \$1.54 billion and is within the Board approved baseline budget for the Federal Way Link Extension Project. A 10 percent contract contingency has been assigned to provide authority for future change orders associated with technical and permitting complexities, differing site conditions, utility relocations, and other risks associated with this type of work.

## **Fiscal information**

This action is within the baseline budget and sufficient monies remain after approval of this action to fund the remaining work in the construction phase as contained in the current cost estimates.

The baseline budget for the Federal Way Link Extension project is \$2,451,535,000. Within the construction phase, \$100,000,000 has been allocated to Alternative Technical Concepts (ATCs) and Notice to Designers (NTDs). This action would commit \$100,000,000 in increasing the FWLE design-build (F200) contract contingency, leaving no remaining budget in this line item.

**Federal Way Link Extension**  
(in thousands)

Project Phase	Baseline Budget	Board Approvals	This Action	Board Approved Plus Action	Uncommitted / (Shortfall)
Agency Administration	\$96,520	\$26,349	\$	\$26,349	\$70,171
Preliminary Engineering	48,951	46,117		46,117	2,834
Final Design	3,085	951		951	2,134
Third Party	27,741	23,352		23,352	4,389
Right of Way	338,783	189,862		189,862	148,921
<b>Construction</b>	<b>1,829,449</b>	<b>1,420,302</b>	<b>100,000</b>	<b>1,520,302</b>	<b>309,147</b>
Construction Services	107,006	106,433		106,433	573
Vehicles					
<b>Total Current Budget</b>	<b>\$2,451,535</b>	<b>\$1,813,366</b>	<b>\$100,000</b>	<b>\$1,913,366</b>	<b>\$538,169</b>
<b>Phase Detail - Construction</b>					
ATC/Notice to Designers Allowance	\$100,000		\$100,000	\$100,000	\$0
F200 DB Angle Lake - FWTC	1,496,513	1,413,720		1,413,720	82,793
Other Construction	232,936	6,582		6,582	226,354
<b>Total Phase</b>	<b>\$1,829,449</b>	<b>\$1,420,302</b>	<b>\$100,000</b>	<b>\$1,520,302</b>	<b>\$309,147</b>
<b>Contract Detail</b>					
<b>Kiewit Infrastructure West Company</b>	<b>Board Approvals to Date</b>	<b>Current Approved Contract Status</b>	<b>Proposed Action</b>	<b>Proposed Total for Board Approval</b>	
Contract Amount	\$1,291,206	\$1,291,206	\$	\$1,291,206	
Contingency - Design/Construction	122,514	122,514		122,514	
Contingency - ATC/Notice to Designers			100,000	100,000	
<b>Total Contract</b>	<b>\$1,413,720</b>	<b>\$1,413,720</b>	<b>\$100,000</b>	<b>\$1,513,720</b>	
Percent Contingency	9%	9%	100%	17%	
Less Betterments	39,001	39,001		39,001	
Sound Transit Share	1,374,719	1,374,719		1,474,719	

**Notes:**  
 Amounts are expressed in Year of Expenditure \$000s.  
 Board Approvals = Committed and PO Contingency Remaining as of 8/27/2020.  
 For detailed project information, see page 69 in the 2020 Finance Plan and Adopted Budget Book.

**Small and disadvantaged business participation**

Sound Transit promotes and encourages small business participation, which also includes disadvantaged business enterprises (DBEs). Consistent with Sound Transit Policies and federal regulations, Sound Transit has established small business/DBE goals for this contract. These goals are based upon an examination of subcontracting opportunities contained in the work of this contract and the number of small businesses/DBEs available to perform such subcontracting work.

For this specific contract, the following goals were set:

<b>Disadvantaged and Small Business goal</b>	
Small Business goal: 15%	Disadvantaged Business Goal: 5 %

Kiewit committed to:

<b>Disadvantaged and Small Business goal - Design</b>	
Small Business goal: 15.05%	Disadvantaged Business Goal: 12.03 %
<b>Disadvantaged and Small Business goal – Construction</b>	
Small Business goal: 15.07%	Disadvantaged Business Goal: 5.17 %

## **Public involvement**

Throughout the development of the Federal Way Link Extension, Sound Transit has conducted extensive public involvement including mailings, community open houses, presentations, and meetings with individuals and neighborhood groups.

## **Time constraints**

A one-month delay could affect the critical path of the project schedule and potentially affect revenue service.

## **Prior Board/Committee actions**

Motion No. M2020-48: Authorized the chief executive officer to execute a funding agreement with Washington State Department of Transportation to pay Sound Transit for construction of certain elements of the SR 509 Completion Project work on Washington State Department of Transportation property at the Midway Landfill as part of the Federal Way Link Extension Project for a not to exceed amount of \$420,000.

Motion No. M2020-47: Authorized the chief executive officer to execute a funding agreement with the City of Seattle for the City to pay Sound Transit for removal of landfill material from WSDOT right of way at the Midway Landfill site as part of the Federal Way Link Extension in the amount of \$13,348,027.

Motion No. M2019-49: Authorized the chief executive officer to execute a design-build contract with Kiewit Infrastructure West Co. to complete final design and construction of the Federal Way Link Extension in the amount of \$1,285,200,000 with a 10 percent contingency of \$128,520,000 for a total authorized contract amount not to exceed \$1,413,720,000.

Motion No. M2018-125: Authorized the chief executive officer to execute a Funding Agreement with the City of Des Moines to reimburse Sound Transit to design and construct the College Way Connection Project as part of the Sound Transit Federal Way Link Extension design-build contract in the amount of \$1,400,000.

Motion No. M2018-109: Authorized the chief executive officer to execute a construction and funding agreement with Washington State Department of Transportation for Sound Transit to design and construct certain elements related to the SR 509 project, as part of the Sound Transit Federal Way Link Extension design-build contract.

Resolution No. R2018-30: Adopted the Federal Way Link Extension baseline schedule and budget by (a) increasing the authorized project allocation to date by \$2,038,910,000 from \$412,625,000 to \$2,451,535,000 (b) lowering the 2018 annual budget by \$52,612,337 from \$116,533,002 to \$63,920,665; and (c) establishing a project revenue service date of December 31, 2024.

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**Environmental review** – KH 9/9/2020

**Legal review** – JEN 09/09/20



## Motion No. M2020-54

A motion of the Board of the Central Puget Sound Regional Transit Authority authorizing the chief executive officer to increase the contract contingency for the Federal Way Link Extension design-build contract with Kiewit Infrastructure West Company in order to incorporate Alternative Technical Concepts and Notices to Designers through cost-effective measures that reduce construction risk, enhance operational safety, and/or improve passenger experience in the amount of \$100,000,000 for a new total authorized contract amount not to exceed \$1,513,720,000.

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- Utilize the agency's NTD process to incorporate emerging lessons learned from ongoing design and construction activities throughout the capital program.

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This action would also authorize staff to proceed with two major ATCs to achieve the objectives of reducing construction risk, enhancing operational safety and/or improving passenger experience:

- An ATC at the Midway Landfill that modifies the mainline trackway to an at-grade alignment passing along the perimeter of the retired landfill, versus an elevated guideway passing through the retired landfill, to reduce construction and long-term risks. This ATC is estimated to cost approximately \$37 million (of which \$13.7 million is being contributed by the City of Seattle and WSDOT under agreements with Sound Transit). Maintaining the elevated guideway would have cost \$50-60 million and would have retained the construction and long-term risk of building over the landfill.
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In addition to the two ATCs authorized under this action, Kiewit and Sound Transit will continue to develop and potentially implement the other 14 conditionally approved ATCs including an ATC for the Federal Way Transit Center to enhance safety and passenger experience for passengers connecting to the station via bus, or from the parking area.

Staff will return to the System Expansion Committee and/or Board for approval of any future expenditures from the ATC/NTD allowance that exceed \$5,000,000 for individual improvements, or changes not currently within the baseline budget or schedule, or not within the project definition approved by the Board or consistent with ST2/ST3.

Following the execution of the design-build contract, Sound Transit issued 12 NTDs. The NTD process amends the agency's technical design criteria between the formal revision cycles for the Design Criteria Manual. This process supports the consistent application of emerging changes to the technical requirements for both the facility infrastructure and systems elements, and captures and implements design lessons learned to ensure consistency of system-wide technical requirements. This action would cover the 12 NTDs, which are estimated to cost approximately \$2.5 million.



## Motion

It is hereby moved by the Board of the Central Puget Sound Regional Transit Authority that the chief executive officer is authorized to increase the contract contingency for the Federal Way Link Extension design-build contract with Kiewit Infrastructure West Company in order to incorporate Alternative Technical Concepts and Notices to Designers through cost-effective measures that reduce construction risk, enhance operational safety, and/or improve passenger experience in the amount of \$100,000,000 for a new total authorized contract amount not to exceed \$1,513,720,000.

APPROVED by the Board of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on September 24, 2020.



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Kent Keel  
Board Chair

### Attest:



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Kathryn Flores  
Board Administrator