

MOTION NO. M2015-64

Increase Contract Contingency for Civil Final Design Services for the East Link Extension IDS to South Bellevue (I-90 Segment)

MEETING:	DATE:	TYPE OF ACTION:	STAFF CONTACT:
Capital Committee	07/09/15	Recommendation to Board	Ahmad Fazel, DECM Executive Director Ron Lewis, East Link Executive Project Director
Board	07/23/15	Final Action	Dirk Bakker, Corridor Design Manager

PROPOSED ACTION

Authorizes the chief executive officer to add contract contingency for the contract with Parsons Brinckerhoff, Inc., to provide final design services for the International District Station to the South Bellevue segment of the East Link Extension in the amount of \$20,000,000, for a new total authorized contract amount not to exceed \$55,839,782.

KEY FEATURES SUMMARY

- The additional contingency funds will be used to address all additions and changes, including design changes, additional efforts, and third-party input and requirements.
- These additions and changes include additional analysis, testing, modeling and design effort, additional field work, and other design services. Additional funding is needed to complete the following specific changes because previous contingency increases were not sufficient to complete the work:
 - Preliminary Hazard Analysis to identify and document hazards and establish mitigation methods through design.
 - D2 Roadway alignment and profile improvements and incorporation of a pocket track to enhance light rail operations. These refinements also provide opportunities to improve access to the Rainier Avenue Station.
 - Additional analysis, testing, modeling (including 3-D modeling) and design efforts related to the track attachment test program for the I-90 Floating Bridge, and additional wind and wave analysis related to stress analysis of the I-90 Floating Bridge.
 - Additional analysis and design related to Fire/Life Safety modifications in the Mercer Island and Mount Baker tunnels.
 - Design changes and refinements at the Mercer Island Station including a platform elevation change and transit system integration in partnership with King County Metro.
- In addition, the contract amendment will allow the following design services to be completed in support of the project:
 - Floating Bridge bolt replacement program.
 - Floating Bridge Flood Damage Assessment.
 - Design Services to support GC/CM contract delivery.

BACKGROUND

The East Link Extension extends light rail to east King County via I-90 from downtown Seattle to downtown Bellevue and the Overlake 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 Overlake Transit Center. The East Link project route, profiles, and station locations, including the tunnel route in downtown Bellevue, were selected by the Sound Transit Board on July 28, 2011, and amended on April 25, 2013. In April 2015, the Sound Transit

Board established the baseline budget and schedule for the project. Revenue service between Seattle and the Overlake Transit Center is forecasted for 2023.

In October 2012, the Board authorized a contract with Parsons Brinckerhoff, Inc. (PB) for final design services for civil and architectural elements necessary to construct the International District Station to South Bellevue segment of the East Link Extension. No contingency was authorized at that time. Work began in November 2012 and the design has made substantial progress. In July 2013, the Board authorized an amendment to the PB contract to provide funding for final design services associated with the turn-back track facility at the International District Station. In October 2013, the Board authorized additional contingency for the PB contract to provide final design services associated with the Track Attachment testing program. In October 2014, the Board authorized an amendment to the PB contract to provide a contingency for final design services associated with a number of additional requirements and changes.

Much of the scope of services for this contingency request and previous authorizations from the Sound Transit Board are similar in nature. This is due to the need for additional analysis, engineering, testing, and design to reach concurrence on IRT (Independent Review Team) issues; to perform concept validation testing; and meet due diligence requirements of Sound Transit and WSDOT.

Civil Final Design in the I-90 corridor has progressed to approximately 60%. One objective during this period has been to advance the design to clearly demonstrate that light rail operations can be fully integrated into the I-90 corridor in a manner that addresses the IRT recommendations while protecting the integrity of the structures. While good progress has been made, and confirmation that there are no fatal flaws to operating light rail on the floating bridge has been achieved, a number of issues have introduced inefficiencies into the design process resulting in expanded and prolonged analysis and additional design efforts. Contributors to these inefficiencies fall into three categories: 1) Additional analysis, engineering, testing, and design; 2) Design team inefficiencies; and 3) Design direction from Sound Transit.

Additional Analysis, Engineering, Testing, and Design:

The I-90 corridor is a built environment where Sound Transit will operate in and on existing structures, including the floating bridge. During the course of the final design it was determined that some critical as-built documents were not accurate and thus required either remodeling the structures, additional engineering, or rework of completed design elements. The design team is also working with several major third parties, and public entities with varying oversight and involvement in the project. The most intense involvement and oversight is with WSDOT, specifically their review and concurrence of design elements to ensure compliance with stringent requirements. These include the Basis of Evaluation (BOE) for existing structures, concurrence on the 23 IRT recommendations, and general coordination for work within WSDOT right of way. Since the start of the Final Design Contract there have been refinements to the future operation of the Center Roadway between Rainier Avenue (D2 Roadway) and the International District Station (IDS). These refinements afford excellent opportunities to improve track alignment (speed, reliability, and ride quality), system operations and bus integration. Other changes include Fire/Life Safety modifications to the two existing tunnels. The direction of these changes to the Final Design Consultant was often a departure from the preliminary engineering design, thereby resulting in rework. However, these design changes will benefit the riding public with improved operations.

Design Team Inefficiencies:

While the civil design that emerged from the Preliminary Engineering generally provided workable concepts, many of the specific elements required additional work to confirm that the full range of design requirements were met. In some cases, the early work was more akin to research &

development rather than production design work as originally planned. Additionally, the design team prematurely started some production work without adequate coordination with key project partners to verify design assumptions and resolve and clarify design issues. In some cases, the design team initially did not have the most suitable personnel on the team prepared to deal with the project challenges. While the Design Team was eventually responsive, these challenges led to inefficiencies in the approach and execution of certain elements of work. The consultant has responded with an augmented team, a refined approach, work plan, and identification of the additional time required to complete the design.

Design Direction from Sound Transit:

Having recognized the lack of timely issue resolution and the need to clarify design direction, Sound Transit directed PB to put the non-critical Final Design activities on hold in February 2015, while moving forward with schedule-critical items, including key IRT issues. This direction reduced the burn rate for this contract, while providing time to work with key project partners, as well as the consultant, to clarify design direction. It is anticipated that the resulting scope, staffing changes, approach, and plan for completing the work will achieve the required Final Design milestones, adequately address remaining design issues, provide coordination with the GC/CM contractor, and provide clarity on the cost to complete.

PROJECT STATUS

Project Identification	Alternatives Identification	Conceptual Engineering	Preliminary Engineering	Final Design	Construction
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Projected Completion Date for Final Design: 4Q 2016

Project scope, schedule and budget summary are located on page 54 of the March 2015 Agency Progress Report.

FISCAL INFORMATION

The 2015 Lifetime Adopted Budget for East Link Extension project is \$3,677,150,000. Within that amount, \$283,000,000 has been set aside for the Final Design Phase. Out of that amount \$165,623,623 has been committed for the Final Design Phase.

The proposed action would commit an additional \$20,000,000 to Parsons Brinckerhoff contract contingency to provide final design services for the International District Station (IDS) to the South Bellevue segment leaving the remaining uncommitted budget of \$97,376,377 in the Final Design Phase.

The need for additional final design funding regarding Parsons Brinckerhoff was identified prior to the establishment of the baseline budget which was adopted by Resolution R2015-04 on April 23, 2015. The baseline Final Design budget included an estimate of the anticipated cost increase. As such, the fiscal impact was minimized.

This action is within the Adopted Budget and sufficient funds remain after approval of this action to fund the remaining work in the Final Design Phase as contained in the current cost estimates.

East Link Extension	2015 TIP*	Commitment to Date	This Action	Board Approved Plus Action	Uncommitted / (Shortfall)
Agency Administration	186,200	34,917	0	34,917	151,283
Preliminary Engineering	55,900	55,113	0	55,113	787
Final Design	283,000	165,624	20,000	185,624	97,376
Third Party Agreements	52,150	10,637	0	10,637	41,513
Right of Way	298,150	82,058	0	82,058	216,092
Construction	2,544,300	14,768	0	14,768	2,529,532
Construction Services	257,450	7,588	0	7,588	249,862
Vehicles	0	0	0	0	0
Total Current Budget	3,677,150	370,705	20,000	390,705	3,286,445

Phase Detail - Final Design

Civil/Arch FD Package 2	56,516	35,847	20,000	55,847	668
Other Phase Work	221,451	129,777	0	129,777	91,674
Unallocated Contingency	5,034	0	0	0	5,034
Total Phase	283,000	165,624	20,000	185,624	97,376

Parsons Brinckerhoff Contract Detail

	Board Approvals to Date	Current Approved Contract Status	Proposed Action	Proposed Total for Board Approval
Contract Amount	28,641	33,517	0	28,641
Contingency	7,199	2,323	20,000	27,199
Total Contract Amount	35,840	35,840	20,000	55,840
Percent Contingency	25%	7%	0%	95%

Notes:

* East Link Extension baseline project budget was approved by Board on April 23, 2015, Resolution No R2015-04.

Amounts are expressed in Year of Expenditure \$000s.

Board Approvals to Date includes amounts through May 31st, 2015 plus any pending Board Actions.

Board Approvals = Committed to-date + Contingency.

SMALL BUSINESS/DBE 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 and the successful Bidder/Proposer has committed to the following Small Business/DBE Participation:

Small Business and Disadvantaged Business Enterprise Goals

Sound Transit Goal:

Small Business: 12%

DBE: 6%

Commitment:

Small Business: 20%

DBE: 10%

Parsons Brinckerhoff, Inc. has achieved 20.33% in small business participation and 12.70% in DBE participation on work to date. Under this amendment, Sound Transit continues to promote and encourage small business participation. Small Business/DBE subcontracting opportunities will be identified as work is developed.

PUBLIC INVOLVEMENT

Public outreach on the East Link Extension has taken place for the last eight years. Outreach activities have included meeting with communities, businesses, stakeholders, local jurisdictions, and agencies. Since project kickoff in 2006, Sound Transit has hosted 35 public meetings while also holding nearly 300 briefings to property owners and stakeholders. The comments gathered at those public sessions have and will continue to help the decision-making process for the East Link Extension.

TIME CONSTRAINTS

Final design will advance to 90% by spring 2016 to meet the scheduled milestone. A one month delay of this action would not delay the continuity of final design and would not significantly impact the final design schedule.

PRIOR BOARD/COMMITTEE ACTIONS

Motion No. M2014-80 Authorized the chief executive officer to add contract contingency for the contract with Parsons Brinckerhoff, Inc., to provide final design services for the International District Station to South Bellevue segment of the East Link Extension in the amount of \$5,498,903, for a total authorized contract amount not to exceed \$35,839,782.

Motion No. M2013-91: Authorized the chief executive officer to add contract contingency for the contract with Parsons Brinckerhoff, Inc., to provide final design services for the International District Station to South Bellevue segment of the East Link Extension in the amount of \$1,700,000, for a new total authorized contract amount not to exceed \$30,340,879.

Motion No. M2013-48: Authorized the chief executive officer to execute a contract amendment with Parsons Brinckerhoff, Inc., to provide final design services for the East Link Extension civil design to include a turn-back track facility at the International District Station in the amount of \$755,879, for a total authorized contract amount not to exceed \$28,640,879.

Motion No. M2012-75: Authorized the chief executive officer to execute a contract with Parsons Brinckerhoff, Inc., to provide final design services for the International District Station to South Bellevue segment of the East Link Extension for a total authorized contract amount not to exceed \$27,885,000.

ENVIRONMENTAL REVIEW

JI 6/16/2015

LEGAL REVIEW

LA 7/6/2015

MOTION NO. M2015-64

A motion of the Board of the Central Puget Sound Regional Transit Authority authorizing the chief executive officer authorizing the chief executive officer to add contract contingency for the contract with Parsons Brinckerhoff, Inc., to provide final design services for the International District Station to the South Bellevue segment of the East Link Extension in the amount of \$20,000,000, for a new total authorized contract amount not to exceed \$55,839,782.

BACKGROUND:

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- Floating Bridge bolt replacement program.
- Floating Bridge Flood Damage Assessment.
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MOTION:

It is hereby moved by the Board of the Central Puget Sound Regional Transit Authority that the chief executive officer is authorized to add contract contingency for the contract with Parsons Brinckerhoff, Inc., to provide final design services for the International District Station to the South Bellevue segment of the East Link Extension in the amount of \$20,000,000, for a new total authorized contract amount not to exceed \$55,839,782.

APPROVED by the Board of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on _____.

Dow Constantine
Board Chair

ATTEST:

Kathryn Flores
Board Administrator