

MOTION NO. M2014-91

**Contract Amendment to Add Funds for Design Services During Construction Support for the University Link Extension**

MEETING:	DATE:	TYPE OF ACTION:	STAFF CONTACT:
Capital Committee	11/13/2014	Recommendation to the Board	Ahmad Fazel, DECM Executive Director
Board	11/20/2014	Final Action	<b>Joe Gildner, Executive Project Director – University Link</b>

PROPOSED ACTION

Authorizes the chief executive officer to add contingency to the contract with Northlink Transit Partners, Joint Venture to provide additional design services during construction for the University Link Extension in the amount of \$1,548,989, for a new total authorized contract amount not to exceed \$64,616,668.

KEY FEATURES SUMMARY

- Additional contingency is needed for continued design services for unforeseen work support of University Link construction. Specifically, additional work includes:
  - Vibration and ground borne noise monitoring, testing and reporting as described in the Master Implementation Agreement with the University of Washington (UW) for Sound Transit entry into campus. This includes development and implementation of pre-revenue vibration planning and testing, maintenance plan and testing, and static and dynamic testing;
  - Ground borne noise monitoring of light rail vehicle operations during pre-revenue service testing at some residential homes above the tunnel alignment;
  - Extended services between Sound Transit and the contractor or the construction management consultant for testing and commissioning, post-substantial completion, or potential claims;
  - Further studies to model and analyze additional emergency fire scenarios for joint bus-light rail operations.
- The amount requested is forecasted to be sufficient to complete design support during construction (DSDC) work for U-Link.

BACKGROUND

University Link Extension is a 3.15-mile light rail extension located entirely underground with tunnels traveling east from Pine Street, under the I-5 freeway to an underground station at Capitol Hill, continuing north beneath SR 520 and the Lake Washington Ship Canal to an underground station on the University of Washington campus, near Husky Stadium.

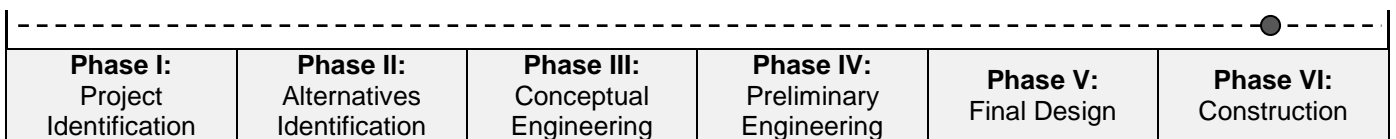
U-Link final design began in December 2006, following Board approval of the U-Link civil engineering and architectural final design services contract with Northlink Transit Partners (NTP). The NTP contract scope of work was divided into three phases: early work, final design, and DSDC. Early work tasks included evaluating revised station entrance configurations, value engineering recommendations, and other ideas for reducing project costs, advancing station architectural work, and other pre-final design activities. Final design work to advance the U-Link project from 30% to 100% design was completed in 2009.

In November 2008, Motion No. M2008-106 amended the contract to add funding for bid support and DSDC of the U-Link Project. The contract was also amended in April 2009 through Motion No. M2009-34 to add funding for advanced preliminary engineering of the Northgate Link Extension. In 2011, Motion No. M2011-12 amended the contract to redesign the Montlake pedestrian bridge, contingent on the Montlake Triangle Project Memorandum of Agreement being approved.

Currently, the construction phase of the project is approaching 90% complete. In the course of construction, it became clear that some DSDC tasks require additional engineering support. The additional DSDC work includes the following:

1. Vibration and ground borne noise monitoring, testing and reporting as described in the Master Implementation Agreement with the University of Washington (UW) for Sound Transit entry into campus. This work includes development and implementation of three tasks:
  - a. Pre-revenue vibration planning and testing to demonstrate that the light rail vehicle operations do not exceed agreed-upon thresholds (limits) for identified buildings in proximity to the University of Washington Station.
  - b. Maintenance plan and testing for wheel-flat and hollow-wheel (prior to pre-revenue phase) to determine the extent to which these wheel defects may increase vibration; and, investigate and confirm that Sound Transit's current wheel truing practices maintain operations at acceptable levels.
  - c. Static and dynamic testing of the vibration mitigation prototypes (e.g. floating slab and ultra-straight rail) to validate Sound Transit's design for vibration mitigation performance in preparation for future light rail operations extending under the UW campus.
2. Ground borne noise monitoring of light rail vehicle operations during pre-revenue service testing at some residential homes above the tunnel alignment. This monitoring ties to an Agency commitment to address some public concerns expressed during tunnel mining. This testing will take place in the Shelby/Hamlin and Boyer basin neighborhoods. Additional testing may take place in neighborhoods near Capitol Hill Station.
3. Further subway environmental simulation (SES) and computational fluid dynamics (CFD) studies to model and analyze additional emergency fire scenarios for joint bus-light rail operations at and north of the Westlake Station as the new University Link tunnel and subway elements are connected without the demising wall separation.
4. Extended services working with Sound Transit and the contractor to:
  - a. Upgrade the design and provide oversight assistance for the complex sequence to properly cast, transport and place floating slab segments in the tunnel.
  - b. Test and commission various systems in the tunnel bores and both subway stations during systems integration and pre-revenue service phases.
  - c. Post-substantial completion support for both subway stations.
5. Extended services working with Sound Transit and the construction management consultant team to assess potential contractor claims arising from the work.
6. Extended service working with Sound Transit to complete the required safety certification documentation for rail activation.

**PROJECT STATUS in SOUND TRANSIT'S PHASE/GATE PROCESS**



Projected Completion Date for Construction: 1Q 2016  
 Project scope, schedule and budget summary located on page 3 of the August 2014 Agency Progress Report.

## FISCAL INFORMATION

The Lifetime capital project budget for the University Link Extension as shown in the 2014 TIP is \$1.756 billion. Within that amount:

- \$17,727,619 has been set aside for Civil Design Services During Construction (DSDC) in the Final Design phase. Since this entire amount has been committed, the proposed action would increase commitments for this line item to \$19,276,608 and result in a budget shortfall of \$1,548,989, which will be funded from Final Design phase unallocated contingency.
- \$2,000,000 has been set aside in the Final Design phase for unallocated contingency. Should the proposed action be approved, this amount would be reduced by \$1,548,989, leaving a remaining balance of \$451,011.

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

The Northlink Transit Partners (NTP) total contract includes work authorized for the Northgate Link Extension.

### University Link Extension

	2014 TIP	Board Approvals	This Action	Board Approved Plus Action	Uncommitted / (Shortfall)
Agency Administration	113,554	66,988		66,988	46,567
Preliminary Engineering	24,261	24,261		24,261	-
Final Design	89,308	85,354	1,549	86,903	2,405
Right of Way	152,332	125,631		125,631	26,701
Construction	1,158,183	987,568		987,568	170,615
Construction Services	95,814	84,351		84,351	11,462
Third Party Agreements	18,646	12,510		12,510	6,136
Vehicles	103,909	99,210		99,210	4,699
<b>Total Current Budget</b>	<b>1,756,007</b>	<b>1,485,873</b>	<b>1,549</b>	<b>1,487,422</b>	<b>268,585</b>

### Phase Detail

#### Final Design

Civil Design Services During Construction	17,728	17,728	1,549	19,277	(1,549)
Other Final Design	69,580	67,626		67,626	1,954
Final Design Unallocated Contingency	2,000	-		-	2,000
<b>Total Phase</b>	<b>89,308</b>	<b>85,354</b>	<b>1,549</b>	<b>86,903</b>	<b>2,405</b>

### Contract Detail

#### Northlink Transit Partners, Joint Venture

	Board Approvals to Date	Current Approved Contract Status	Proposed Action	Proposed Total for Board Approval
Contract Amount	61,809	62,190	-	61,809
Contingency	1,259	0	1,549	2,808
<b>Total</b>	<b>63,068</b>	<b>62,190</b>	<b>1,549</b>	<b>64,617</b>
Percent Contingency	2%	0%	100%	5%
Less Northgate Link Extension	3,189	2,311	-	3,189
<b>Total University Link Extension</b>	<b>59,879</b>	<b>59,879</b>	<b>1,549</b>	<b>61,428</b>

<b>Budget Shortfall Funding</b>	(1,549)	←
Final Design Unalloc Contingency (UAC)	2,000	←
Remaining Final Design UAC	451	

#### Notes:

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

Board Approvals = Committed To-Date + Contingency, and includes pending Board actions.

2014 TIP = Lifetime project budget located on page 34 of the 2014 Transit Improvement Plan (TIP).

## 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:

Sound Transit Goal: 20%  
Commitment: 20%

Northlink Transit Partners (NTP) is committed to a 20% Small Business goal. To date, NTP has achieved 16.78% small business participation. For this amendment it is anticipated that the small business participation will be 59.07%. Small business participation is expected to be 17.41% at the conclusion of the contract.

The subconsultants/subcontractors to be utilized under this amendment are only firms that are providing additional services, as reflected below.

<b>Subconsultant/Subcontractor</b>	<b>Business Type</b>	<b>% of Work</b>	<b>Amount</b>
JTS Manage Services	DBE	0.03%	\$ 425
Moniz Art & Architecture	DBE	1.96%	\$ 30,399
Swift & Company	DBE	0.67%	\$ 10,406
Wilson Ihrig Associates	Small Business	56.41%	\$ 873,845
<b>Total</b>		<b>59.07%</b>	<b>\$ 915,075</b>

## PUBLIC INVOLVEMENT

Sound Transit staff held a number of station design workshops, project open houses, and other meetings involving property owners, neighborhood and business groups, and other interested parties throughout the University Link study area during the final design process.

Sound Transit will continue an active community outreach program during University Link construction including the use of a 24 hour-a-day construction hotline, periodic community construction meetings, the use of a variety of written and electronic communication materials and other outreach activities. The NTP team will continue to provide design resources to assist Sound Transit in future outreach activities.

## TIME CONSTRAINTS

A one month delay could be accommodated by reducing or delaying submittals and Request for Information reviews while still meeting the contract commitment dates for those items.

## PRIOR BOARD/COMMITTEE ACTIONS

Motion No. M2012-65: Authorized the chief executive officer to execute a contract amendment with Northlink Transit Partners, Joint Venture, to provide additional design services during construction for the University Link Project in the amount of \$8,004,410, for a new total authorized contract amount not to exceed \$63,067,679.

Motion No. M2011-12: Authorized the chief executive officer to execute a contract amendment with North Link Transit Partners, Joint Venture to redesign the Montlake Pedestrian Bridge for the University Link project in the amount of \$1,534,000, for a new total authorized contract amount not to exceed \$55,063,269, contingent upon approval of the Montlake Triangle Project Memorandum of Agreement.

Motion No. M2009-34: Authorized the chief executive officer to execute a contract amendment with North Link Transit Partners, Joint Venture for additional funding in order to provide Early Work (Advanced Preliminary Engineering) on the North Link extension from the University of Washington Station to the portal for the North Link tunnels near Interstate 5 and NE 76th Street in the amount of \$2,898,800, with a contingency of \$289,880 totaling \$3,188,680, for a new total authorized contract amount not to exceed \$53,529,269.

Motion No. M2008-106: Authorized the chief executive officer to execute a contract amendment with North Link Transit Partners, Joint Venture to provide bid support and design services during construction for the University Link project in the amount of \$10,479,900, with a contingency of \$968,660 totaling \$11,456,954, for a new total authorized contract amount not to exceed \$50,340,589.

Motion No. M2006-78: Authorized the chief executive officer to execute a contract with North Link Transit Partners, Joint Venture to provide civil engineering and architectural final design services for the University Link project for a total authorized contract amount not to exceed \$38,883,635 with final design work subject to Federal Transit Administration final design approval.

#### ENVIRONMENTAL REVIEW

Jl 10/27/2014

#### LEGAL REVIEW

LA 7 November 2014

## **MOTION NO. M2014-91**

A motion of the Board of the Central Puget Sound Regional Transit Authority authorizing the chief executive officer to add contingency to the contract with Northlink Transit Partners, Joint Venture to provide additional design services during construction for the University Link Extension in the amount of \$1,548,989, for a new total authorized contract amount not to exceed \$64,616,668.

### **BACKGROUND:**

University Link Extension is a 3.15-mile light rail extension located entirely underground with tunnels traveling east from Pine Street, under the I-5 freeway to an underground station at Capitol Hill, continuing north beneath SR 520 and the Lake Washington Ship Canal to an underground station on the University of Washington campus, near Husky Stadium.

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5. Extended services working with Sound Transit and the construction management consultant team to assess potential contractor claims arising from the work.
6. Extended service working with Sound Transit to complete the required safety certification documentation for rail activation.

The amount requested is forecasted to be sufficient to complete design support during construction (DSDC) work for U-Link.

**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 contingency to the contract with Northlink Transit Partners, Joint Venture to provide additional design services during construction for the University Link Extension in the amount of \$1,548,989, for a new total authorized contract amount not to exceed \$64,616,668.

APPROVED by the Board of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on November 20, 2014.



Dow Constantine  
Board Chair

ATTEST:



Marcia Walker  
Board Administrator