

**MOTION NO. M2017-49**
**Construction Contract for Northgate Link and East Link Extensions Systems Construction**

<b>MEETING:</b>	<b>DATE:</b>	<b>TYPE OF ACTION:</b>	<b>STAFF CONTACT:</b>
Capital Committee	04/13/2017	Recommend to Board	Ahmad Fazel, DECM Executive Director <b>Ron Lewis, Executive Project Director</b>
Board	04/27/2017	Final Action	<b>– East Link</b> <b>Don Davis, Executive Project Director – Northgate Link</b> <b>Craig DeLalla, Deputy Director Systems</b>

**PROPOSED ACTION**

Authorizes the chief executive officer to execute a construction contract with Mass Electric Construction Company to provide Heavy Civil General Contractor/Construction Manager services for the Northgate Link and East Link Extensions systems construction in the amount of \$360,428,571 with a 5% contingency of \$18,021,429 for a total authorized contract amount not to exceed \$378,450,000.

**KEY FEATURES SUMMARY**

- The proposed contract uses the Heavy Civil General Contractor/Construction Manager (GC/CM) contracting method. This contracting method was selected based on certain project characteristics including complex scheduling and phasing requirements, along with extensive interface with other contractors and Sound Transit Operations.
- The Systems Construction Contract Package (N830/E750) includes installation of signals, traction electrification, traction power substations, overhead catenary systems (OCS), communications, and SCADA (supervisory control and data acquisition) systems across the combined Northgate and East Link extensions, covering 18 miles of the light rail system.
- A provisional sum is included within this contract amount to provide funding for the installation of electrical distribution equipment that is necessary for the operation and integration of the Pine Street facility with the University Link and the Downtown Seattle Transit Tunnel. This effort is in support of the deletion of the emergency generator necessary for Convention Place Development Systems Retrofit project.
- The proposed action would implement the construction phase of the GC/CM process, with a notice-to-proceed to be issued by Sound Transit when appropriate.

**BACKGROUND**

Northgate Link extends light rail 4.3-miles from the University of Washington Station North under the campus via twin bored tunnels to the underground U District Station along Brooklyn Avenue NE between NE 43rd and NE 45th Streets, an underground Roosevelt Station along 12th Avenue NE between NE 65th Street and NE 67th Street, and continuing to an elevated station in Northgate along 1st Avenue NE spanning NE 103rd Street. The Northgate Link Extension is scheduled to be completed in September 2021 and will provide an interim terminus for Link at Northgate until the Lynnwood Link Extension is in service, currently anticipated in 2023. On June 28, 2012, the Sound Transit Board baselined the Northgate Link Extension’s schedule and budget.

East Link extends light rail 14 miles from downtown Seattle to downtown Bellevue and the Overlake area of Redmond via I-90, 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, 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 forecast for 2023.

In February 2013, Sound Transit made the decision to combine the systems construction contract for the Northgate Link and East Link extensions into one construction package based on a Value Engineering recommendation. A single Systems Contract provides opportunities for cost efficiencies as a result of: reduced contractor oversight and administration; discounts for increased material quantities; and reduced construction submittals. The combined package will also help ensure consistency in equipment suppliers thus reducing spare parts and maintenance training cost. The Lynnwood Link Systems Construction Contract Package (L800) is an option within this contract. That option was included in the Request For Qualifications for this procurement and included in the contractor proposals. The Lynnwood Link contract option is under evaluation and not included within this action.

The Northgate Link and East Link extensions are both highly complex and will involve close coordination of work and access between the Civil Contractors and the Systems Contractor. The Systems GC/CM will interface with three station GC/CMs on the Northgate Link Extension and a minimum of five civil contractor teams on the East Link Extension. The contracts have been packaged to maximize the benefit of GC/CM and to attract the strongest and most qualified Prime Contractors to propose on the work.

The Sound Transit Board authorized a contract with Mass Electric Construction Company for pre-construction services on December 12, 2015. As part of pre-construction services the contractor; participated in the development of final construction plans, schedules and subcontracting plans; developed cost estimates for construction; participated in the Sound Transit risk management program; and performed value engineering and constructability reviews.

Sound Transit negotiated the Maximum Allowable Construction Cost (MACC) for the full construction contract with Mass Electric Construction Company in March 2017. Consistent with the Heavy Civil GC/CM process and RCW 39.10, the MACC included costs relating to the procurement of subcontracts, work to be self-performed by Mass Electric Construction Company, negotiated support services, MACC risk contingency and provisional sums. The costs included in this action are consistent with the independent cost estimate and are considered fair and reasonable.

The Convention Place Development Systems Retrofit project eliminates the space for the existing transit tunnel back-up generator. As a result, Sound Transit has worked with King County Metro and the Seattle Fire Department on an alternative means of adhering to the code-mandated redundant power requirements by providing an automated back-up power source at the Pine Street facility. Letters of Concurrence with the City of Seattle and King County Metro allow Sound Transit to utilize the Pine Street facility source as an emergency supply for the tunnel as long as the operation is automated. The electrical distribution equipment modifications will also allow for the operation and integration of the Pine Street facility with the University Link, Northgate Link and the Downtown Seattle Transit Tunnel.

## **FISCAL INFORMATION**

The proposed contract with Mass Electric Construction Company for \$378,450,000 will provide Heavy Civil General Contractor/Construction Manager (GC/CM) services for systems construction that encompasses three Link projects as follows:

- Northgate Link Extension (N830 Systems construction) for an amount not to exceed \$107,868,466 (\$102,731,872 plus \$5,136,594 contingency);
- East Link Extension (E750 Systems construction) for an amount not to exceed \$268,556,534 (\$255,768,128 plus \$12,788,406 contingency); and
- Convention Place Development Systems Retrofit project for an amount not to exceed \$2,025,000 (\$1,928,571 plus \$96,429 contingency).

#### Northgate Link Extension

The baseline budget for the Northgate Link Extension is \$1,899,755,500. Within the construction phase, \$108,000,000 has been allocated to the budget line item for N830 Systems construction. The proposed action would commit \$107,868,466 to this line item and leave a remaining budget balance of \$131,534.

#### East Link Extension

The baseline budget for the East Link Extension is \$3,677,150,000. Within the construction phase, \$269,000,000 has been allocated to the budget line item for the E750 Systems construction. The proposed action would commit \$268,556,534 to this line item and leave a remaining budget balance of \$443,466.

This action is within the baseline budgets for the above projects, and sufficient monies remain after approval of this action to fund the remaining work in the construction phase of each project.

#### Convention Place Development Systems Retrofit

The authorized project allocation to date for the Convention Place Development Systems Retrofit project is \$2,549,150. Within that amount, \$2,025,000 has been allocated to the construction phase for installation of the systems equipment required for the retrofit. The proposed action would commit this entire amount and leave no remaining budget in the construction phase.

This action is within the authorized project allocation to date for the above project and sufficient monies remain after approval of this action to fund the remaining project work.

**General Contractor/Construction Manager Services for Northgate Link Extension, East Link Extension and Convention Place Development Systems Retrofit**  
(in thousands)

Contract Detail	Board Approvals to Date	Current Approved Contract Status	Proposed Action	Proposed Total for Board Approval
Mass Electric Construction Company				
Contract Amount	\$	\$	\$360,429	\$360,429
Contingency			18,021	18,021
<b>Total Contract</b>	<b>\$</b>	<b>\$</b>	<b>\$378,450</b>	<b>\$378,450</b>
Percent Contingency	0%	0%	5%	5%

**Northgate Link Extension**

Project Phase	Baseline Budget	Board Approvals	This Action	Board Approved Plus Action	Uncommitted / (Shortfall)
Agency Administration	\$147,879	\$66,984	\$	\$66,984	\$80,896
Preliminary Engineering	15,077	15,077		15,077	
Final Design	129,167	121,248		121,248	7,919
Right of Way	112,300	103,821		103,821	8,479
Construction	1,343,023	1,151,257	107,868	1,259,126	83,897
Construction Services	118,310	90,761		90,761	27,549
Third Party Agreements	11,800	9,894		9,894	1,906
Vehicles					
Contingency	22,200				22,200
<b>Total Current Budget</b>	<b>\$1,899,756</b>	<b>\$1,559,042</b>	<b>\$107,868</b>	<b>\$1,666,910</b>	<b>\$232,845</b>
<b>Phase Detail</b>					
<b>Construction</b>					
N830 Systems	\$108,000	\$	\$107,868	\$107,868	\$132
Other Construction	1,235,023	1,151,257		1,151,257	83,765
<b>Total Phase</b>	<b>\$1,343,023</b>	<b>\$1,151,257</b>	<b>\$107,868</b>	<b>\$1,259,126</b>	<b>\$83,897</b>

**East Link Extension**

Project Phase	Baseline Budget	Board Approvals	This Action	Board Approved Plus Action	Uncommitted / (Shortfall)
Agency Administration	\$186,200	\$55,761	\$	\$55,761	\$130,439
Preliminary Engineering	55,900	54,839		54,839	1,061
Final Design	283,000	239,027		239,027	43,973
Right of Way	298,150	210,960		210,960	87,190
Construction	2,544,300	1,834,224	268,557	2,102,781	441,519
Construction Services	257,450	189,332		189,332	68,118
Third Party Agreements	52,150	39,341		39,341	12,809
Vehicles					
<b>Total Current Budget</b>	<b>\$3,677,150</b>	<b>\$2,623,484</b>	<b>\$268,557</b>	<b>\$2,892,041</b>	<b>\$785,109</b>
<b>Phase Detail</b>					
<b>Construction</b>					
E750 Systems	\$269,000	\$	\$268,557	\$268,557	\$443
Other Construction	2,275,300	1,834,224		1,834,224	441,076
<b>Total Phase</b>	<b>\$2,544,300</b>	<b>\$1,834,224</b>	<b>\$268,557</b>	<b>\$2,102,781</b>	<b>\$441,519</b>

**Convention Place Development Systems Retrofit**

Project Phase	Authorized Project Allocation to Date	Board Approvals	This Action	Board Approved Plus Action	Uncommitted / (Shortfall)
Agency Administration	\$233	\$8	\$	\$8	\$224
Final Design	72	29		29	43
Construction	2,025		2,025	2,025	
Construction Services	220				220
<b>Total Current Budget</b>	<b>\$2,549</b>	<b>\$37</b>	<b>\$2,025</b>	<b>\$2,062</b>	<b>\$487</b>

**Notes:**

Amounts are expressed in Year of Expenditure.

Board Approvals = Committed To-Date + Contingency as of February 2017 and includes pending Board actions.

For detailed project information, see the Adopted 2017 Transit Improvement Plan: Northgate Link Extension, page 23, East Link Extension, page 26, and Convention Place Development Systems Retrofit, page 107.

## **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 Mass Electric Construction Company has committed to the following Small Business/DBE Participation:

### Small Business and Disadvantaged Business Enterprise Goals

#### Sound Transit Goal:

Small Business: 6%

DBE: 3%

#### Commitment:

Small Business: 6%

DBE: 3%

## **PUBLIC INVOLVEMENT**

Sound Transit also has an active community outreach program during construction, which includes a 24- hours/7-days-a-week construction hotline, a variety of written materials, and public meetings.

Sound Transit staff has been actively engaged with affected stakeholders and the public about the construction work related to these projects. Staff will continue to work closely with local jurisdictions to coordinate public notification efforts and other outreach activities during construction.

## **TIME CONSTRAINTS**

A one month delay may impact the project schedule as a result of some long lead material procurements.

## **PRIOR BOARD/COMMITTEE ACTIONS**

Motion No. M2015-118: Authorized the chief executive officer to execute a contract with Mass Electric Construction Company to provide pre-construction services for the Northgate Link and East Link Extensions systems construction in the amount of \$2,993,538, with a 10% contingency of \$299,354, for a total authorized contract amount not to exceed \$3,292,892.

## **ENVIRONMENTAL REVIEW**

JI 4/5/2017

## **LEGAL REVIEW**

JEN 04/07/2017

## **MOTION NO. M2017-49**

A motion of the Board of the Central Puget Sound Regional Transit Authority authorizing the chief executive officer to execute a construction contract with Mass Electric Construction Company to provide Heavy Civil General Contractor/Construction Manager services for the Northgate Link and East Link Extensions systems construction in the amount of \$360,428,571 with a 5% contingency of \$18,021,429 for a total authorized contract amount not to exceed \$378,450,000.

### **BACKGROUND:**

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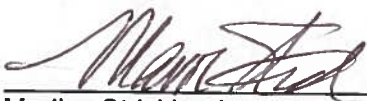
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**MOTION:**

It is hereby moved by the Board of the Central Puget Sound Regional Transit Authority that the chief executive officer is authorized to execute a construction contract with Mass Electric Construction Company to provide Heavy Civil General Contractor/Construction Manager services for the Northgate Link and East Link Extensions systems construction in the amount of \$360,428,571 with a 5% contingency of \$18,021,429 for a total authorized contract amount not to exceed \$378,450,000.

APPROVED by the Board of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on April 27, 2017.



Marilyn Strickland  
Board Vice Chair

ATTEST:



Kathryn Flores  
Board Administrator