

MOTION NO. M2013-98

Contract for University Link Extension Wheel Flat, Vibration, and Magnetic Field Monitoring and Detection Systems

MEETING:	DATE:	TYPE OF ACTION:	STAFF CONTACT:	PHONE:
Capital Committee	11/14/2013	Recommendation to Board	Ahmad Fazel, DECM Executive Director	206-398-5389
Board	11/21/2013	Final Action	Joe Gildner, Executive Project Director, U-Link Pete Brown, Principal Construction Manager (Systems)	206-689-3350 206-903-7473

PROPOSED ACTION

Authorizes the chief executive officer to execute a contract with International Electronic Machines Corporation to provide wheel flat, vibration and magnetic field monitoring and detection systems for the University Link Extension in the amount of \$4,999,400, with a 10% contingency of \$499,940, for a total authorized contract amount not to exceed \$5,499,340.

KEY FEATURES SUMMARY

- This contract includes work to design, furnish, install, test and commission the following:
 - Wheel flat detection instrumentation on the Initial Segment required for U-Link monitoring.
 - Vibration monitoring instrumentation in the University Link tunnels and in select University of Washington campus buildings.
 - Magnetic field instrumentation in existing boreholes located in the vicinity of the University of Washington Station.
- The scope of work also includes:
 - Integration of the monitoring and detection system with the Supervisory Control and Data Acquisition (SCADA) system provided under the University Link Systems contract. This allows Link controllers to be alerted if the monitored data exceeds programmed warning and alarm levels.
 - Technical field support for a period of five years following acceptance of the U-Link system.
- This action also includes an option to install, test and commission additional instrumentation in the tunnels of the Northgate Link Extension. Staff would return to the Board at a later date for authorization to exercise the Northgate Link Extension option.

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.

The magnetic fields and vibration monitoring program was established in the Master Implementation Agreement for Sound Transit Entry to the University of Washington Seattle Campus, dated July 2007. Key goals outlined therein for the monitoring and detection system design are:

1. Measurement, recording and analysis and transmission of magnetic fields and vibration data collected at the UW campus in the vicinity of the University Link rail alignment.
2. Detecting trains exceeding vibration thresholds as agreed by Sound Transit and UW prior to entry to UW campus.
3. Continuous and long-term monitoring and detection to ensure that magnetic fields and vibration levels remain within specified thresholds as agreed by Sound Transit and UW.
4. Real time data analysis.
5. Alarm reporting at Link Control Center (LCC) and UW campus.

Sound Transit issued a Request for Proposals on April 29, 2013. One bid proposal was received from International Electronic Machines Corporation (IEM) on July 30, 2013. During the proposal evaluation process, the bid proposal did not accurately reflect the scope of work and system functionality specified in the design documents. Staff advised IEM to revise the proposal addressing a range of technical and commercial questions, and to submit a best and final offer (BAFO). A BAFO was received on September 13, 2013 in the amount of \$4,999,400. This proposal was found fair and reasonable and was accepted.

Environmental compliance for the University Link Extension pursuant to the National Environmental Policy Act (NEPA) and State Environmental Policy Act (SEPA) was completed with the North Link Final Supplemental Environmental Impact Statement (EIS) issued on April 7, 2006. The Federal Transit Administration issued a Record of Decision for North Link in June 2006.

FISCAL IMPACT

The 2013 TIP for the University Link Extension is \$1.756 billion. Within that amount, \$6,500,000 has been set aside for EMI, Vibration and Wheel Flat Monitoring in the construction phase. The proposed action would commit \$5,499,340 of that amount for this line item, and leave a remaining budget balance of \$1,000,660.

The proposed action is within the adopted 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.

University Link Extension

	2013 TIP	Board Approvals	This Action	Board Approved Plus Action	Uncommitted / (Shortfall)
Agency Administration	115,229	58,126		58,126	57,103
Preliminary Engineering	24,261	24,261		24,261	-
Final Design	87,633	85,258		85,258	2,375
Right of Way	152,332	125,603		125,603	26,729
Construction	1,158,183	950,107	5,499	955,606	202,577
Construction Services	95,814	81,325		81,325	14,489
Third Party Agreements	18,646	11,785		11,785	6,861
Vehicles	103,909	99,185		99,185	4,724
Total Current Budget	1,756,007	1,435,650	5,499	1,441,149	314,858

Phase Detail

Construction

EMI/Vibration/Flat Wheel	6,500	-	5,499	5,499	1,001
Other Construction	1,151,683	950,107		950,107	201,576
Total Phase	1,158,183	950,107	5,499	955,606	202,577

Contract Detail

International Electronics Machines Corp. (IEM)	Board Approvals to Date	Current Approved Contract Status	Proposed Action	Proposed Total for Board Approval
Contract Amount	-	-	4,999	4,999
Contingency	-	-	500	500
Total	-	-	5,499	5,499
Percent Contingency	0%	0%	10%	10%

Notes:

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

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

Project Budget is located on page 30 of the 2013 Transit Improvement Plan (TIP).

SMALL BUSINESS PARTICIPATION

Sound Transit Small Business and DBE Goals:

Small Business: 3.5%

DBE: 3.5%

Contract Commitment:

Small Business: 3.5%

DBE: 3.5%

While the contractor's proposal did not identify specific small or disadvantaged businesses they intend to engage in the work, IEM did confirm their commitment to meeting the S/DBE goals specified in the contract.

EQUAL EMPLOYMENT WORKFORCE PROFILE

31 employees; 9.7% women; 9.7% minorities

PUBLIC INVOLVEMENT

Not applicable to this action.

TIME CONSTRAINTS

A one month delay could delay the start of construction. Contract milestone dates are required under the Master Implementation Agreement (MIA) with the University of Washington. Under the terms of the MIA, liquidated damages may be assessed by the University for delays.

PRIOR BOARD/COMMITTEE ACTIONS

Not applicable to this action.

ENVIRONMENTAL REVIEW

JI 10/7/2013

LEGAL REVIEW

LA 8 Nov 2013

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A motion of the Board of the Central Puget Sound Regional Transit Authority authorizing the chief executive officer to execute a contract with International Electronic Machines Corporation to provide wheel flat, vibration and magnetic field monitoring and detection systems for the University Link Extension in the amount of \$4,999,400, with a 10% contingency of \$499,940, for a total authorized contract amount not to exceed \$5,499,340.

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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 contract with International Electronic Machines Corporation to provide wheel flat, vibration and magnetic field monitoring and detection systems for the University Link Extension in the amount of \$4,999,400, with a 10% contingency of \$499,940, for a total authorized contract amount not to exceed \$5,499,340.

APPROVED by the Board of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on November 21, 2013.



Pat McCarthy
Board Chair

ATTEST:



Marcia Walker
Board Administrator