



MOTION NO. M2016-114

Noise and Vibration Program Track Condition and Wayside Noise Diagnostic System and Database

MEETING:	DATE:	TYPE OF ACTION:	STAFF CONTACT:
Capital Committee	11/10/2016	Final Action	Ahmad Fazel, DECM Executive Director Moises Gutierrez, Deputy Executive Director – Design & Engineering Shankar Rajaram, Senior Noise and Vibration Engineer

PROPOSED ACTION

Authorizes the chief executive officer to execute a three-year contract with twelve one-year options to extend with Acoustics Strategies, Inc. (dba ATS Consulting) to provide a Track Condition and Wayside Noise Diagnostic System and Database for the Noise and Vibration Program in the amount of \$709,000.

KEY FEATURES SUMMARY

- The proposed action is to procure a noise diagnostic system and database to guide Sound Transit’s maintenance and noise management program.
- Phase 1 will build the diagnostic system and database to match Sound Transit’s light rail system and potentially correlate other data elements to the “loudness” measurements. The refined diagnostic tool will allow Sound Transit to identify potential “hot spots” for wayside noise and vibration issues. Phase 1 will be approximately six months.
- Phase 2 will use the diagnostic tool during periods of data collection, giving Sound Transit insights into the wheel-rail interface.
- Phase 2 will include on-call engineering support for data collection analysis and database management.
- The scope of work for Phase 2 covers database set-up, testing and management as well as data collection, processing and software refinement service for three years. At Sound Transit’s discretion, Phase 2 services include an option to assess and extend the related periodic data collection and database management services annually for up to 12 years, in accordance with the agency’s typical technology procurement practices.
- The amount requested is sufficient to cover Phase 1 and the three years under Phase 2. It does not include funding for the twelve one-year contract options under Phase 3.

BACKGROUND

The noise diagnostic system is an element of the Noise and Vibration Program, which will help Sound Transit maintain and demonstrate lower systemwide noise and vibration levels for sustained periods of time. Drawing on the experience from the design, construction, and maintenance of the current operating system, this system will not only help to manage noise and vibration compliance to federal and local commitments, but also aid mitigation design of future projects.

This action includes a modern, a portable diagnostic tool that will allow Sound Transit to efficiently scan the relative noise levels along Link light rail alignment. This tool will be custom built for Sound Transit and delivered in the first year. The easy-to-implement instrument will be able to extract detailed information on track conditions and interlink the information with a data management system to store historic data in an accessible format. The information collected using this

equipment will be used to inform projects during design and construction to potentially lower the cost of noise and vibration mitigation. The information will also guide maintenance actions at areas with relatively higher noise levels along the existing Link alignment, potentially extending the service life of capital assets.

Sound Transit issued a Request for Proposal (RFP) in June 2016. Three proposals were received in July 2016. Company Acoustics Strategies, Inc. (dba ATS Consulting) was determined to be the highest-ranked firm.

FISCAL INFORMATION

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

The cost of this contract is split between University Link for the initial set up and configuration of the data collection tool and the DECM Department budget for future on-call tasks to collect and maintain data. DECM Departmental costs will be included in future budgets and presented for approval during the budget process.

University Link Extension

	2016 TIP	Board Approvals	This Action	Board Approved Plus Action	Uncommitted / (Shortfall)
Agency Administration	113,554	80,473		80,473	33,081
Preliminary Engineering	24,261	24,261		24,261	-
Final Design	89,308	88,201		88,201	1,107
Right of Way	152,332	126,031		126,031	26,301
Construction	1,158,183	997,447	195	997,641	160,542
Construction Services	95,814	86,705		86,705	9,109
Third Party Agreements	18,646	12,479		12,479	6,167
Vehicles	103,909	99,206		99,206	4,703
Total Current Budget	1,756,007	1,514,803	195	1,514,998	241,009

Phase Detail

Construction

Construction Systems - Operational Equip	1,000	670	195	865	135
Other Construction	1,157,183	996,777		996,777	160,406
Total Phase	1,158,183	997,447	195	997,641	160,542

DECM Department Budget - Consulting

	Prior Year Spending	Proposed 2016 Spending	Future Expenditures	Total
Acoustics Strategies	-	-	515	515

**Contract Detail
Acoustic Strategies**

	Board Approvals to Date	Current Approved Contract Status	Proposed Action	Proposed Total for Board Approval
Contract Amount	-	-	709	709
Contingency	-	-	-	-
Total	-	-	709	709
Percent Contingency	0%	0%	0%	0%

Notes:

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

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

2016 TIP = Project budget located on page 21 of the 2016 Transit Improvement Plan (TIP).

SMALL BUSINESS/DBE PARTICIPATION

Sound Transit promotes and encourages small business participation, which also includes Disadvantaged Business Enterprises (DBEs). Small Business and DBE 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.

Sound Transit determined that there were few Small Business and DBE subcontracting opportunities based upon the work described in this contract. Therefore, Small Business/DBE goals were not established or required.

For this contract, Acoustics Strategies, Inc. is a small business that anticipates 100% Small Business/DBE participation. The approximate estimate for the contractor/subcontractor are:

Small Business and Disadvantaged Business Enterprise Goals

Sound Transit Goal:

Small Business: 0%

DBE: 0%

Commitment:

Small Business: 100%

DBE: 9.4%

Contractor/Subcontractor	Business Type	% of Work	Amount
Acoustics Strategies Inc.	Small Business	45.4%	\$ 321,000
TOADAL	Small Business	43.7%	\$ 309,121
Michael Minor & Associates	DBE	9.4%	\$ 66,305
Sanchez Industrial Design	Small Business	1.5%	\$ 10,309
Total		100%	\$ 706,735

PUBLIC INVOLVEMENT

Not applicable to this action.

TIME CONSTRAINTS

A one-month delay would not have a significant impact to this project.

PRIOR BOARD/COMMITTEE ACTIONS

Not applicable to this action.

ENVIRONMENTAL REVIEW

JI 10/6/2016

LEGAL REVIEW

JW 11/04/2016

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A motion of the Capital Committee of the Central Puget Sound Regional Transit Authority authorizing the chief executive officer to execute a three-year contract with twelve one-year options to extend with Acoustics Strategies, Inc. (dba ATS Consulting) to provide a Track Condition and Wayside Noise Diagnostic System and Database for the Noise and Vibration Program in the amount of \$709,000.

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MOTION:

Central Puget Sound Regional Transit Authority that the chief executive officer is authorized to execute a three-year contract with twelve one-year options to extend with Acoustics Strategies, Inc. (dba ATS Consulting) to provide a Track Condition and Wayside Noise Diagnostic System and Database for the Noise and Vibration Program in the amount of \$709,000.

APPROVED by the Capital Committee of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on November 10, 2016.



Fred Butler
Capital Committee Chair

ATTEST:



Kathryn Flores
Board Administrator