

Motion No. M2020-53

Contract Modification with Acoustics Strategies, Inc. dba ATS Consulting for a Track Condition and Wayside Noise Diagnostic System and Database Noise and Vibration Program

Meeting:	Date:	Type of action:	Staff contact:
System Expansion Committee	09/10/2020	Final action	Ron Lewis, DECM Executive Director Shankar Rajaram, Manager – Engineering, Rail Vehicles

Proposed action

Authorizes the chief executive officer to execute a contract modification with Acoustics Strategies, Inc. dba ATS Consulting to exercise three consecutive one-year extension options to provide a track condition and wayside noise diagnostic system and database for the Noise and Vibration Program in the amount of \$2,235,000, for a new total authorized contract amount not to exceed \$4,043,308.

Key features summary

- In November 2016, through Motion No. M2016-114, the Sound Transit Board authorized the contract with Acoustic Strategies, Inc. dba ATS Consulting, which included twelve one-year contract options.
- The proposed action funds and authorizes execution of three consecutive one-year extension options with Acoustic Strategies, Inc. dba ATS Consulting for Phase 3 of the Noise and Vibration Program Track Condition and Wayside Noise Diagnostic System and Database project.
- The scope of work includes development of advanced features in the hardware and software; and collection of additional field data. Anticipated tasks include:
 - Periodic rail and wheel condition change measurements.
 - Periodic onboard noise measurements, analysis, and recommendations.
 - Periodic wayside noise and vibration measurements, analysis, and recommendations.
 - Ride quality assessments, vehicle characterization, and advance ride quality index.
 - Development and application of user interface and advanced trend analysis tools.
 - Periodic rail and wheel condition change measurements.
 - Analytics for remaining useful life estimates for the rail.
- The proposed modification will advance the development of ride quality metrics, analyze the remaining useful life for rails and wheels, understand wheel rail interactions with two types of light rail vehicles in operation, evaluate vehicle performance, and aid preventive maintenance decision making.
- This action will extend the end date for the contract to December 14, 2023.

Background

In November 2016, Motion No. M2016-114 authorized a three year contract with twelve one-year options to extend with ATS Consulting for a noise diagnostic system and database to guide Sound Transit's maintenance and noise management program. Under this authorization, Phase 1 and 2 of the contract included development of a custom-built diagnostic tool to efficiently scan the relative noise levels along the light rail alignment. It also included scope to perform periodic noise data collection, resulting in a database that allows the agency to proactively identify areas that need detailed investigation or additional maintenance. The tool was developed and implemented into the Link light rail system for periodic data collection in 2017. The routine data set and preliminary analysis indicated opportunities to optimize the wheel rail interface and the need to perform a more detailed study.

In November 2018, Motion No. M2018-144 amended the contract to authorize and fund a contract option for a detailed wheel rail interaction study to help mitigate risks for Northgate Link vibration under the University of Washington. The study is on-going and include computer modeling and field-testing of Sound Transit's light rail vehicles, evaluation of vehicle components, and recommendations for optimized wheel and rail surface shapes. The information will also help identify appropriate maintenance cycles when there will be two types of light rail vehicles. This work could also help Sound Transit Link light rail operations to manage train noise and vibration to comply with federal and local commitments on a sustained basis.

In February 2020, a single one-year extension was executed to develop advanced features in the hardware and software, collect additional field data to improve quality of the information in the database for troubleshooting noise, vibration and ride quality issues in the future.

Procurement information

Sound Transit issued a Request for Proposal (RFP) for Track Condition and Wayside Noise Diagnostic System and Database services in June 2016. Three proposals were received in July 2016. Acoustics Strategies, Inc. (dba ATS Consulting) was determined to be the highest-ranked firm and awarded the contract in December 2016.

This contract has a potential Term of 15 years (three base years, plus 12 one-year options). The first option was executed in 2019. For the proposed options, lump sum deliverables and hourly unit rates were determined to be fair and reasonable. Escalation is based on Employment Cost Index Series ID CIU20154000000001, not seasonally adjusted.

This action would exercise three option years for a new end date of December 14, 2023 and add funds to the contract, which are permitted under this contract's terms and conditions.

Fiscal information

This action is within the authorized project allocation for Noise Abatement and sufficient monies remain after approval of this action to fund the remaining work in the final design phase.

The authorized project allocation for the Noise Abatement project is \$13,000,000. Within that amount, \$3,717,340 has been allocated to the final design. This action would commit \$2,235,000 and leave remaining balance of \$723,545 in the Final Design phase.

Noise Abatement Project

(in thousands)

Project Phase	Baseline Budget	Board Approvals	This Action	Board Approved Plus Action	Uncommitted / (Shortfall)
Agency Administration	\$1,300	\$1,069		\$1,069	\$231
Preliminary Engineering					
Final Design	3,718	759	2,235	2,994	724
Third Party					
Right of Way	16	16		16	
Construction	5,879	5,879		5,879	
Construction Services	2,088	2,088		2,088	
Vehicles					
Total Current Budget	\$13,000	\$9,811	\$2,235	\$12,046	\$954
Phase Detail - Final Design					
ATS Consulting	\$2,663	\$428	\$2,235	\$2,663	\$0
Other Final Design	1,055	332		332	724
Total Phase	\$3,718	\$759	\$2,235	\$2,994	\$724
Contract Detail					
ATS Consulting	Board Approvals to Date	Current Approved Contract Status	Proposed Action	Proposed Total for Board Approval	
Noise and Vibration Program	\$428	\$428	\$2,235	\$2,663	
Noise Abatement Contingency	0%	0%	0%	0%	
Total Noise Abatement Contract Amount	\$428	\$428	\$2,235	\$2,663	
Northgate Link Total Contract Amount	389	389		389	
University Link Total Contract Amount	195	195		195	
DECM Dept Total Contract Amount	798	798		798	
Total Contract	\$1,808	1,808	2,235	4,043	
Total Contingency	0%	0%	0%	0%	
Total Contract Amount	\$1,808	\$1,808	2,235	\$4,043	

Notes:

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

Board Approvals = Committed and PO Contingency Remaining as of 8/27/2020.

For detailed project information, see page 105 in the 2020 Finance Plan and Adopted Budget Book.

Disadvantaged and small business 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.

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

Motion No. M2018-144: Authorized the chief executive officer to execute a contract amendment with Acoustics Strategies, Inc. (dba ATS Consulting) to provide a track condition and wayside noise diagnostic system and database in the amount of \$449,308, for a new total authorized contract amount not to exceed \$1,158,308.

Motion No. M2016-114: Authorized 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.

Environmental review – KH 8/31/20

Legal review – JSA 9/8/20



Motion No. M2020-53

A motion of the System Expansion Committee of the Central Puget Sound Regional Transit Authority authorizing the chief executive officer to execute a contract modification with Acoustics Strategies, Inc. dba ATS Consulting to exercise three consecutive one-year extension options to provide a track condition and wayside noise diagnostic system and database for the Noise and Vibration Program in the amount of \$2,235,000, for a new total authorized contract amount not to exceed \$4,043,308.

Background

In November 2016, Motion No. M2016-114 authorized a three year contract with twelve one-year options to extend with ATS Consulting for a noise diagnostic system and database to guide Sound Transit's maintenance and noise management program. Under this authorization, Phase 1 and 2 of the contract included development of a custom-built diagnostic tool to efficiently scan the relative noise levels along the light rail alignment. It also included scope to perform periodic noise data collection, resulting in a database that allows the agency to proactively identify areas that need detailed investigation or additional maintenance. The tool was developed and implemented into the Link light rail system for periodic data collection in 2017. The routine data set and preliminary analysis indicated opportunities to optimize the wheel rail interface and the need to perform a more detailed study.

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In February 2020, a single one-year extension was executed to develop advanced features in the hardware and software, collect additional field data to improve quality of the information in the database for troubleshooting noise, vibration and ride quality issues in the future.

The proposed action funds and authorizes execution of three consecutive one-year extension options with Acoustic Strategies, Inc. dba ATS Consulting for Phase 3 of the Noise and Vibration Program Track Condition and Wayside Noise Diagnostic System and Database project.

The scope of work includes development of advanced features in the hardware and software; and collection of additional field data. Anticipated tasks include:

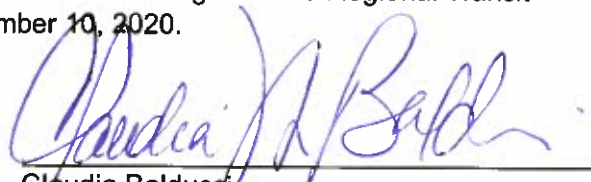
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Motion

It is hereby moved by the System Expansion Committee of the Central Puget Sound Regional Transit Authority that the chief executive officer is authorized to execute a contract modification with Acoustics Strategies, Inc. dba ATS Consulting to exercise three consecutive one-year extension options to provide a track condition and wayside noise diagnostic system and database for the Noise and Vibration Program in the amount of \$2,235,000, for a new total authorized contract amount not to exceed \$4,043,308.

APPROVED by the System Expansion Committee of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on September 10, 2020.



Claudia Balducci
System Expansion Committee Chair

Attest:



Kathryn Flores
Board Administrator