

STAFF REPORT

SUBJECT: Contract Award for SAV System Engineering Services

FROM: Toan Tran, Director of Operations and Innovation

DATE: August 22, 2022

Action Requested

Staff requests that the Board of Directors award a contract to WSP in the amount not-to-exceed \$280,000 for the Shared Autonomous Vehicle (SAV) System Engineering services.

Background

To help fund LAVTA's SAV pilot project, in February 2018, the City of Dublin (COD), with support from LAVTA, was awarded an Innovative Deployments to Enhance Arterials (IDEA) Category II grant from the Metropolitan Transportation Commission (MTC) in the amount of \$385,000, to deploy an SAV on streets in the COD and/or implement transit connected vehicle applications in order to improve arterial operations and enhance safety along these corridors. LAVTA and the COD executed a Memorandum of Understanding concerning cooperation for grant-funded activities in September 2018.

As collaboration on the grant-funded activities began with preliminary systems engineering work, staff from MTC, the COD, and LAVTA identified opportunities to streamline delivery and administration of transit-focused aspects of the Project by having LAVTA procure certain project components involving deployment of the SAV. In September 2019, MTC revised the IDEA Program of Projects to add LAVTA as a partner agency to the Project in addition to the COD. In order to access program funds directly, LAVTA executed a standard Master Funding Agreement for Federal Highway Administration (FHWA) funding with MTC in November 2019.

As part of the collaboration between the COD and LAVTA on the IDEA grant and other local resources, the SAV project continued progressing. In December 2018, the User Needs Analysis which analyzed and memorialized the needs of SAV users was completed. The User Needs Analysis was followed by the development of the draft System Engineering Management Plan (SEMP) in July 2021. The SEMP defines and clarifies what items are to be developed, delivered, installed, verified, and supported for the SAV system testing and operations. It also outlines roles and responsibilities of all Project partners and other Project stakeholders along with a timeline for completion of critical tasks, the responsible parties, and how the products will be accepted and managed.

In June 2020, field testing of transit operations and safety evaluations was kicked off. Under this work, a test route was designed from the BART Station to the intersection near the Persimmon Place Shopping Center on Martinelli Way.

The key evaluation elements included: keeping the vehicle on schedule, weather impacts, vehicle speed, battery consumption and mileage, vehicle reaction to obstacles, issues requiring manual override, and various other environmental conditions. During the testing work, the SAV operated autonomously for more than 500 miles accident-free. In November 2020, LAVTA moved to deploy the SAV for public access and began offering public rides. At the conclusion of the testing in July 2021, 116 SAV passengers had taken rides.

LAVTA released a Request for Proposals (RFP) for the SAV System Engineering services on June 17, 2022, and proposals were due on July 18, 2022. Some of the key elements in the scope of work for the RFP include:

- Update User Needs Analysis
- Update and finalize the System Engineering Management Plan (SEMP)
- Develop Concept of Operations for both the SAV and Connected Vehicles (CV) systems
- Develop System Requirements for SAV and CV
- Provide Site Review and Assessment Support
- Provide Mobility Hubs Planning and Design Support
- Provide SAV and CV Procurement and Deployment Support
- Provide SAV-V2X Integration and Testing Support

To accelerate the procurement schedule to better align with the SAV service implementation timeline, staff leveraged MTC’s consultant bench by only soliciting the 21 qualified firms on the list. LAVTA received four (4) proposals from the following firms:

- Advanced Mobility Group (AMG), Walnut Creek, CA
- Iteris, Santa Ana, CA
- RS&H, Falls Church, VA
- WSP, San Francisco, CA

Discussion

In order to select a best qualified firm, proposals were rated in four categories and assigned points (100% total) as noted below.

Evaluation Criteria - % Weight (100% Best)	Scoring
Complete and thorough conformance with the terms and requirements of this RFP	Pass/Fail
Company Qualifications, Experience & References: Prior experience history and qualifications of Consultant in providing like services, including specific experience of the team and key personnel to complete the Scope of Work	45 points
Understanding of and Response to Proposal Requirements: Proposal demonstrates clear understanding of service requirements and addresses all proposal requirements adequately, including the technical work plan and the required submissions.	35 points
Written/oral communication/presentation: As evidenced in the submitted proposal and interviews, if held.	20 points
Total Points	100 points

In addition to LAVTA staff, the evaluation committee also included representatives from our project and funding partners at BART, the COD, Alameda County Transportation Commission (ACTC), and MTC. The committee reviewed the technical proposals to determine the relative strengths of each firm. Below is a summary of the scoring.

Firm	Total Points (Avg/ 100 points max)
WSP	91.1
Iteris	82.8
AMG	82.5
RS&H	73.1

All four proposers were deemed both responsive and responsible, capable of carrying out the contracts. WSP was the only proposer that ranked first or tied for first in all three evaluation criteria. Given the disparity of the scores between the firms, it's unlikely that the interview alone will help the other firms surpass WSP. As a result, the optional interviews were not conducted.

WSP's proposal received the highest average score because it demonstrated a clear understanding of the SAV Project, including what critical steps are needed to complete it on time and within budget. The evaluation committee noted that the previously completed projects by WSP within the last five years found to be in close alignment with the SAV Project. WSP also provided several references, and LAVTA staff checked each reference by interviewing project managers. LAVTA staff received very positive feedback from all references.

Below are some of the key elements noted by the evaluation committee regarding the WSP proposal:

Under the Company Qualifications, Experience and References category, the evaluation committee noted that WSP showed strong qualifications and experience. It provided the most relevant and comprehensive experience encompassing the full lifecycle of CV and AV project implementation, with a thoughtful composition for the proposed team.

Under the Understanding of and Response to Proposal Requirements category, it was highlighted that WSP demonstrated a thorough understanding of the project and provided a clear and easy-to-follow technical work plan. Others mentioned that WSP provided a realistic project plan, which included a schedule. Additionally, it was mentioned that WSP's proposal addressed all proposal elements with detailed technical workplan responses (i.e. Proposed schedule, additional meetings, public outreach, etc.).

Under the Written/Oral Communication/Presentation category, the evaluation committee was impressed by WSP's clear, concise and to-the-point proposal. It was mentioned that WSP provided the best presentation out of the four submitted proposals. WSP clearly articulated relevant experience and the value of the contract. Finally, it was indicated that WSP provided visually clear graphics, a clean report design, and the proposal was well-written to effectively convey their approach.

LAVTA staff evaluated WSP's cost proposals and determined the costs were fair and reasonable.

Based on the evaluation committee’s input, review of cost proposals, and follow-up interviews of the references provided by WSP, LAVTA staff is confident that WSP is the best candidate of the four submitted RFP proposals to complete the requested Project tasks, and recommends awarding the SAV System Engineering Services contract to WSP.

Fiscal Impact

The total budget of \$280,000 includes 10 percent for contingency. Funding for this project is included in the fiscal year 2022-23 approved budget.

Recommendation

Staff recommends the LAVTA Board of Directors award a contract to WSP in the amount not-to-exceed \$280,000 for the Shared Autonomous Vehicle (SAV) System Engineering services.

Attachment:

1. Resolution 34-2022

Approved: _____

RESOLUTION 34-2022

**A RESOLUTION OF THE BOARD OF DIRECTORS
OF THE LIVERMORE AMADOR VALLEY TRANSIT AUTHORITY
AWARDING SAV SYSTEM ENGINEERING SERVICES CONTRACT**

WHEREAS, LAVTA requires the services of qualified firms to provide engineering support services for the shared autonomous vehicles (SAV) project; and

WHEREAS, the agency issued Request for Proposals (RFP) for SAV System Engineering Services RFP 2022-02; and

WHEREAS, four bids were received and the evaluation committee determined WSP as the most qualified and highest rated proposer; and

WHEREAS, LAVTA intends to enter into contract with WSP to provide a wide range of engineering support services as outlined in the RFP; and

WHEREAS, the project is funded with MTC IDEA grant and is included in the fiscal year 2022-23 approved budget;

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Livermore Amador Valley Transit Authority that the LAVTA Board authorizes the Interim Executive Director to enter contract with WSP for the SAV system engineering services in the amount not to exceed \$280,000; and

PASSED AND ADOPTED this 22nd day of August 2022.

David Haubert, Chair

Attest:

Tamara Edwards, Interim Executive
Director