

STAFF REPORT

SUBJECT: Engineering Support Services Extension for Shared Autonomous Vehicle Project

FROM: Toan Tran, Director of Operations and Innovation

DATE: November 1, 2021

Action Requested

The Projects & Services Committee recommend the Board of Directors approve Resolution 33-2021, authorizing the Executive Director to execute a Task Order 2 between LAVTA and Gray-Bowen-Scott (GBS) for engineering support services for the SAV Project.

Background/Discussion

In January of 2021, LAVTA issued an RFP for professional engineering support services for the SAV Project to help with the feasibility study for Phase II and awarded the contract to GBS. LAVTA entered into an Engineering Support Services agreement on February 8, 2021, with GBS for a not to exceed amount of \$49,935.

Since then, GBS has assisted LAVTA in coordinating with the Metropolitan Transportation Commission (MTC) to meet the Project goal of starting the fixed route service near the Dublin/Pleasanton BART Station; completed Ridership Analysis for the Project; developed the final SAV Route options; finalized SAV stops and Transit Hub locations; assisted in review of civil plans for the County Garage for SAV storage and charging; prepared project route maps; assisted in the field review of SAV operations at BART Station and along the route; evaluated traffic signal design to link real-time data transmission to the SAV for safe operations; assisted in the transition to Cellular-to-Vehicle-Everything or CV2X technology for existing 4G cellular systems or newer 5G networks for direct field communications; provided assistance with preparing, reviewing, and analyzing technical data for several grant applications; and helped with building partnerships with local businesses for the Project. GBS was able to help accomplish several project milestones before further work required issuing Task Order 1, in the amount of \$13,000, to supplement funding and extending services an additional two months.

Staff is now requesting to supplement the funding in a not-to-exceed amount of \$120,000, under the current Agreement with GBS. All other terms of the existing Agreement, dated February 8, 2021, will remain in force.

With this additional funding, GBS will assist LAVTA in locating the Transit Hub inside the business park, and perform engineering analysis on the Transit Hub space, access feasibility, the SAV and its supporting equipment storage, SAV turnaround areas, charging facilities, fare collection infrastructure, SAV stop and shelter elements, and any other physical or technical features. This task is expected to require more legal and institutional resources as compared to

establishing a Transit Hub in a public right-of-way. GBS will assist LAVTA in securing access and circulation agreements with the private property owners and will coordinate with the City of Dublin in securing any needed approvals for establishing the SAV Transit Hub at proposed locations, as well as help LAVTA in preparing, reviewing, and analyzing technical data for future grant applications for this Project.

In addition, GBS will provide on-going assistance in engaging the local business community for their support of the SAV Project and negotiations to implement TDM strategies. Under the on-call services, GBS will provide support at select meetings, expert advice on technical issues, coordinate with the City, MTC, SAV vehicle manufacturer, signal communication system vendors, etc., and any other SAV Project-related work authorized by LAVTA.

Financial Impact

The funding for this Task Order 2 is included in LAVTA’s fiscal year 2021-22 approved budget.

Recommendation

The Project & Services Committee recommends that the Board of Directors approve Resolution 33-2021, authorizing the Executive Director to execute a Task Order 2 between LAVTA and Gray-Bowen-Scott (GBS) for engineering support services for the SAV Project, for a not-to-exceed amount of \$120,000.

Attachments

1. SAV Engineering Support Services Extension Resolution 33-2021
2. GBS Task Order 2

Approved: _____

RESOLUTION NO. 33-2021

**A RESOLUTION OF THE BOARD OF DIRECTORS
OF THE LIVERMORE AMADOR VALLEY TRANSIT AUTHORITY
AUTHORIZING THE EXECUTIVE DIRECTOR TO EXECUTE CONTRACT
TASK ORDER 2 WITH GRAY-BOWEN-SCOTT FOR ENGINEERING
SUPPORT SERVICES FOR THE SHARED AUTONOMOUS VEHICLE
PROJECT**

WHEREAS, in January of 2021, LAVTA issued an RFP for professional engineering support services for the SAV Project to help with the feasibility study for Phase II and awarded the contract to GBS; and

WHEREAS, On February 8, 2021, LAVTA entered into an agreement with GBS for a not-to-exceed amount of \$49,935; and

WHEREAS, GBS was able to help accomplish several project milestones before further work required issuing Task Order 1, in the amount of \$13,000, to supplement funding and extending services an additional two months; and

WHEREAS, with additional support needed prior to implementation of Phase II of the SAV Project; and

WHEREAS, staff has determined that GBS has the necessary professional qualifications and has demonstrated competence in providing engineering support services based on its prior services; and

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Livermore Amador Valley Transit Authority that the Executive Director is authorized to execute Contract Task Order 2 with GBS for a not-to-exceed amount of \$120,000 for engineering support services for the SAV Project.

PASSED AND ADOPTED by the governing body of the Livermore Amador Valley Transit Authority (LAVTA) this 1st day of November 2021.

BY _____
Karla Brown, Chair

ATTEST _____
Michael Tree, Executive Director

Request of Supplementary Funding for the Engineering Support Services Agreement

Based on our conversations with LAVTA staff, the following are the key Project tasks that are continuing and require additional funding:

1. Evaluate SAV Transit Hub Location

Gray-Bowen-Scott will continue to assist LAVTA in locating the Transit Hub inside the business park (hub location) located north of Central Parkway as shown in LAVTA'S Phase II proposed route below. Our evaluation continues to address the required Transit Hub space, access feasibility, Shared Autonomous Vehicle (SAV) turn around areas, SAV and its supporting equipment storage, SAV charging facility, fare collection infrastructure, SAV stop and shelter elements, and any other physical and technical features.

Gray-Bowen-Scott will continue to assist in locating a Transit Hub on private property. This task is assumed to require more legal and institutional resources as compared to establishing a Transit Hub in public Right of Way. More resources may be needed because private property owners may have additional liability and security concerns for public shuttles accessing their property.

LAVTA was interested in establishing a second SAV transit hub in the vicinity of East Dublin/Pleasanton BART Station. This work was substantially completed under the existing Engineering Support Services Agreement (Agreement).

Gray-Bowen-Scott will continue to assist LAVTA in securing access and circulation agreements with the private property owners. We will also continue to coordinate with the City of Dublin and assist LAVTA in securing any needed approvals for establishing a SAV Transit Hub at the proposed hub location. Gray-Bowen-Scott estimates that additional funding in the amount of \$30,000 (100 to 120 hours of GBS project team) would be needed to continue the technical assistance under this task.



2. On-Call services

As per our discussion, Gray-Bowen-Scott proposes a separate budget for on-call services that will be billed on a time and material basis as directed by LAVTA. We will only use this budget after receiving an authorization from LAVTA. Based on the progress of the Project, we will provide support at select meetings, expert advice on technical issues, coordinate with the City, MTC, SAV vehicle manufacturer, signal communication system vendors, etc., and any other SAV testing related work authorized by LAVTA. We estimate that additional funding in the amount of \$90,000 (200 to 360 hours of GBS project team) will be adequate for us to continue to provide technical assistance under this task.

So far Gray-Bowen-Scott has completed the tasks below under the on-call services work:

- **Review proposed SAV Route**
Gray-Bowen-Scott has assisted in developing two SAV route options as shown below:

Option 1 - SAV Route



Option 2 - SAV Route



➤ **Traffic Signal Communication Evaluation - Crossing or Travelling along Dublin Boulevard**

Gray-Bowen-Scott has provided technical support on this task such that several items under this task are either complete or continuing to be completed as the Project moves into the implementation stage under the Second Phase of the Project. We have assisted in planning for the integration of two-way communication between an autonomous vehicle and a traffic signal controller on a public street, as well as the transition to Cellular to Vehicle-Everything or CV2X technology for existing 4-G cellular system or newer 5-G networks for direct field communications.

Gray-Bowen-Scott will continue to build upon the current technical support as the Project moves into implementation stage.

➤ **Ridership Forecast**

This task has been completed.

➤ **Conceptual Layouts and Plans**

This task is on-going. Several conceptual layouts and plans have been completed under the current funding.

➤ **Technical support on various grant applications**

Gray-Bowen-Scott has provided on-call services to prepare, review, and analyze technical data for several grant applications that LAVTA has pursued. These included, Federal Earmark request, RM2 funding, CALSTA grant, and similar other funding related support.

➤ **Build Grassroot Support with Businesses**

Gray-Bowen-Scott has assisted LAVTA in building partnerships with local businesses for the Project. This has resulted in acquiring support from ZEISS Innovation Center, Brookfield Developers and other businesses in the Business Park on Central Parkway. These efforts have helped LAVTA to receive letters of support, TDM planning support, and access to business properties. ZEISS has recently agreed to provide access to its parking area for SAV charging at no cost to LAVTA.

Based on our conversations with LAVTA staff, these additional tasks have been added as example tasks under this category of the Scope of Work. LAVTA staff may request additional tasks under this scope of work category. We will only use this budget after receiving an authorization from LAVTA:

- Example Task 1. Build Grassroot Support among Various Businesses and Employers in the Vicinity of the BART Station.

Gray-Bowen-Scott will provide an on-going assistance in engaging the local business community for their support of the SAV Project. This will include as needed phone calls, meetings, and workshops to present the project concepts and its progress to businesses like Ross, Boulevard, Zeiss, etc. GBS will also track each business' support status, its commitments under a prior mandated or volunteer TDM plan, its ability to provide level of TDM program support, and any other similar items to ensure a real time tracking of local business support.

As an example of deliverables, GBS will provide meeting minutes, tracking matrix of grassroots support, and a log of all follow ups with businesses. Additional deliverables may be added as requested by LAVTA staff.

- Example Task 2. Develop Transportation Demand Management (TDM) Strategies Based Upon the Grassroot Support Information Developed in the above Task.

This Task will build upon the Example Task 1. GBS will assist in the development of TDM strategies tailored for each business' needs and its ability to support such ideas financially. We will review each business's employee population and recommend TDM strategies that will be negotiated with each business based on the support garnered in the Example Task 1. GBS will also evaluate each business' ability to implement TDM strategies including its ability to provide timely notifications and information to employees on an on-going basis. If additional resources are needed, GBS will recommend approaches to develop partnerships among businesses allowing pooling of resources to reduce costs of and preferred TDM program. GBS will assist in negotiations with businesses to implement TDM strategies.

As an example of Deliverables, GBS will create a matrix of TDM strategies tailored for each business needs. We will also track negotiations with businesses, any follow ups, and any other related parameters requested by LAVTA staff. Additional deliverables may be added as requested by LAVTA staff.

Total Additional Funding Requested

Based upon the above descriptions of current Project needs and our discussions with LAVTA staff, Gray-Bowen-Scott requests a total of \$120,000 of supplemental funding. All other terms of the existing Engineering Support Services Agreement, dated February 8, 2021, will remain in force.