



## Board Report

File #: 2024-0967, File Type: Contract

Agenda Number: 7.

### CONSTRUCTION COMMITTEE NOVEMBER 20, 2024

**SUBJECT: SYSTEMS ENGINEERING AND SUPPORT SERVICES CONTRACT**

**ACTION: APPROVE RECOMMENDATION**

#### **RECOMMENDATION**

CONSIDER:

- A. APPROVING an increase in total authorized funding and executing Modification No. 12 to Contract No. AE47810E0128 with SECOTrans (Joint Venture of Hatch Associates Consultants, Inc., NBA Engineering Inc., Pacific Railway Enterprises Inc., and Ramos Consulting Services, Inc), for pending and future Task Orders to provide systems engineering and support services for Metro Rail and Bus Transit projects, in the Not-to-Exceed (NTE) amount of \$35,000,000, increasing the total contract authorized funding from an NTE amount of \$114,782,000 to an NTE amount of \$149,782,000, and exercising a one-year option extending the contract through April 25, 2026; and
- B. AUTHORIZING the Chief Executive Officer (CEO) or designee to execute individual Task Orders and Contract Modifications within the Board approved contract funding amount.

#### **ISSUE**

At its April 2018 meeting, the Board approved awarding a seven-year cost reimbursable fixed fee, Task Order (TO) based contract with three one-year options, to SECOTrans, a Joint Venture for Systems Engineering and Support Services (SESS) consulting. The approval required staff to return to the Board on a biennial basis as projects progressed and new project requirements were identified to update contract expenditure authorization. The funds previously authorized by the Board for FY25 will be exhausted by January 2025; therefore, the recommended increase will allow staff to complete scheduled work anticipated for FY25 and most of FY26.

#### **BACKGROUND**

The challenge presented by the simultaneous implementation of numerous projects is to ensure the integration and standardization of the systems elements within and across the current Metro system. Consistent development and design ensure that the required integration is achieved within civil and

electrical infrastructure, vehicles, control systems, communications, operations, maintenance, security, and training.

Prior to the procurement of the SESS, each project would use a different consultant for this work, resulting in inconsistent applications. This approach is no longer feasible or advisable with the large volume of projects now underway. With a single SESS design team on staff, the standardization of design, construction, and functionality of systems elements will keep Metro's long-term interest in system interoperability, maintainability, and safety at the forefront. A fully integrated network requires consistency of systems design and not a collection of potentially incompatible independent designs arising from separate projects. This approach has been implemented successfully in other transit agencies nationwide, and the benefits of full systems standardization include:

- Interoperability and efficient maintainability
- Improved commercial viability
- Reduced spares requirements
- Reduced training requirements
- Flexibility to adapt to changing circumstances

To date, staff has executed Task Orders and Task Order Modifications (MODs) totaling \$101,277,491.34 with \$13,504,508.66 in authorized funding remaining. Upon Board approval, Staff would execute a Contract Modification to exercise the one-year option and extend the Contract end date to April 25, 2026. Examples of projects supported by this contract include Metro Operational Simulation Analyses, Metro Rail Operations Control and Bus Operations Control Centers (ROC/BOC), Metro G Line BRT Improvements, Westside D Line 1/2/3, East San Fernando Valley Light Rail Transit, Eastside Phase 2, and Southeast Gateway Line (SGL). Attachment A includes the procurement summary for this contract, and Attachment B includes a complete listing of the TOs and MODs executed since the beginning of the SESS contract. As indicated during initial approval, staff is now seeking additional funding authorization to support Systems Engineering, Measure R, and Measure M projects through most of FY26.

## **DISCUSSION**

With the approval of Measure M, the ongoing implementation of the Measure R Program, and required State of Good Repair initiatives, staff have engaged a SESS consultant to provide a broad range of systems engineering design and related support services to supplement current Systems Engineering Department resources. Metro's capital program requires extensive resources with the ability to react quickly to a wide range of complex technical issues. With a strong core staff located in Los Angeles County, the SESS is capable of applying and withdrawing resources as project workloads fluctuate over time. The SESS has the extensive experience and capability to support the complete project lifecycle, from the conceptual phase to final design and construction.

Due to the intensive system integration requirements and length of time needed to deliver major capital improvement projects, this contract has allowed Metro to efficiently and effectively augment Program Management staff where appropriate to ensure the proper project resources are available to Metro.

The SESS provides a single systems engineering team, and associated sub-specialties, with the necessary resources to assist in the planning, development, and delivery of Metro's aggressive schedule of projects for the next decade. Examples of systems engineering disciplines include traction electrification, overhead contact systems (OCS), train control, communications, supervisory control and data acquisition (SCADA), rail simulations, corrosion control, systemwide electrical, and other specialized disciplines.

The Systems Engineering Services estimated level of effort for the additional NTE amount of \$35,000,000 was developed using the current master schedule, construction estimates, and completed work to date from the Project Controls department. An estimated level of effort cost was determined for each project using past project costs, systems to civil project percentages along with historical rates. Depending on the type of transit project and the complexity, the percentages were derived from the overall construction costs to determine the systems construction and engineering costs. Systems Engineering level of effort costs were distributed across each fiscal year according to the master schedule.

In addition to the projects identified above and in Attachment B, staff expects the SESS to provide systems engineering services for current and future rail and bus transit projects, and other capital improvement projects, including, but not limited to, the following:

- Rail Operations Control and Bus Operations Control Centers (ROC/BOC)
- East San Fernando Valley Transit Corridor
- Eastside Phase 2 Extension
- Southeast Gateway Line Transit Corridor
- Sepulveda Pass Transit Corridor
- Vermont Transit Corridor
- G Line BRT Improvements
- Westside D Line Extension Section 1/2/3
- K Line North

### **DETERMINATION OF SAFETY IMPACT**

The use of a consistent systems design process has a positive safety benefit during the construction and subsequent operations of Metro's Bus and Rail transit network.

### **FINANCIAL IMPACT**

The requested NTE contract funding is based on the anticipated level of services that will be required for the remainder of FY25 and through most of FY26. Funding for the individual TOs is included in the Board approved life-of-project (LOP) budgets or annual budgets; therefore, this work is within the various project budgets.

Since this is a multi-year contract, project managers, cost managers, and the Chief Program Management Officer will be responsible for budgeting costs in future years.

### Impact to Budget

Funding for TOs issued under this contract is provided by the specific project(s) utilizing the services. These projects are typically funded by a mix of federal, state, and local funds, including Measure R and Measure M. Where appropriate, certain Operations projects are funded with operating eligible funds.

### **EQUITY PLATFORM**

The Systems Engineering and Support Services funds Conceptual Engineering, Preliminary Design and Specifications, Final Design, including Design Services During Construction of Transit Rail and Bus Projects for various Metro projects including Southeast Gateway Line, East San Fernando Valley Transit Corridor, and other Metro transit projects, including in and serving riders from Equity Focus Communities.

These services are essential for support and on time delivery of Metro projects across the greater Los Angeles area. All services supported by this contract are centered on avoiding project delays and promoting cost saving measures to effectively deliver the projects with minimal impacts and provide enhanced mobility and regional access to underserved populations.

SECOTrans Joint Venture made an overall 15% DBE commitment for this contract and, based on payments reported, is exceeding its commitment by 13.53% with a total DBE participation of 28.53%. The DEOD summary is included as Attachment C.

### **IMPLEMENTATION OF STRATEGIC PLAN GOALS**

The Systems Engineering Support Services contract supports the following strategic goals: Strategic Goal 1: Provide high-quality mobility options that enable people to spend less time traveling. Through this contract, the systems engineering consultant team will continue to implement innovative and state of the art engineering solutions to provide efficient mobility options throughout the LA County area. Strategic Goal 2: Deliver outstanding trip experiences for all users of the transportation system. The contract ensures the timely delivery and implementation of systems that provide essential communications, security, comfort, and reliability to all users. These factors are important areas of concern identified by Metro management and annual customer surveys. Strategic Goal 5: Provide responsive, accountable, and trustworthy governance within the Metro organization. With a regular biennial authorization update to the Board, Metro staff will offer transparency and accountability of Systems related work involved in the Measure M program and other major capital projects.

### **ALTERNATIVES CONSIDERED**

The Board may choose to reject the recommendation and request staff to re-procure these services through an RFP, choose to authorize an alternative amount, or approve an alternative term of financial authorization. Staff does not recommend these alternatives. The use of a qualified SESS consultant has allowed the agency to secure highly technical expertise without the necessary increase in Metro's long-term labor costs. Further, by providing for an extended term contract, the Board has afforded staff the resources that seek to provide an integrated and consistent network

design that serves Metro's interests. Finally, by limiting the funding authorization through most of FY26, greater accuracy of project scope and cost requirements are provided to the Board on a regular basis.

**NEXT STEPS**

Upon Board approval, staff will execute Modification No. 12 to Contract No. AE47810E0128 and specific task orders will be issued on an as needed basis.

**ATTACHMENTS**

Attachment A - Procurement Summary

Attachment B - Task Order Log

Attachment C - DEOD Summary

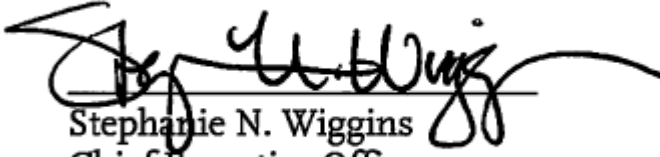
Prepared by: Ron Tien, Executive Officer, Systems Engineering (Interim), (213) 418-3445

Michael Ratnasingham, Senior Executive Officer, Systems Engineering, (213) 418-3440

Carolina Coppolo, Deputy Chief Vendor/Contract Management Officer (Interim), (213) 922-4471

Reviewed by: Tim Lindholm, Chief Program Management Officer, (213) 922-2250

Conan Cheung, Chief Operations Officer, (213) 418-3034



Stephanie N. Wiggins  
Chief Executive Officer