



Board Report

File #: 2020-0170, File Type: Informational Report

Agenda Number: 23.

CONSTRUCTION COMMITTEE MAY 21, 2020

SUBJECT: SYSTEMS ENGINEERING AND SUPPORT SERVICES

ACTION: APPROVE RECOMMENDATIONS

RECOMMENDATION

AUTHORIZE the Chief Executive Officer to:

- A. An increase in total authorized funding for Contract No. AE47810E0128 with SECOTrans (Joint Venture of LTK Engineering Services, 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 in the amount of \$22,500,000 for 1 year, increasing the total contract value from \$43,932,000 to \$66,432,000 through Fiscal Year 2021; and
- B. The Chief Executive Officer (CEO) or designee to execute individual Task Orders and Contract Modifications within the Board approved contract funding amount.

ISSUE

In April 2018, the Board approved awarding a seven-year cost reimbursable fixed fee, Task Order (TO) based Contract No. AE47810E0128, plus three one-year options, to SECOTrans, a Joint Venture for Systems Engineering and Support Services (SESS) consultant. The Board action provided an initial two-year funding authorization in the amount of \$28,932,000 through Fiscal Year 2020. In February 2020, a separate Board action approved an additional not-to-exceed (NTE) authorization in amount of \$15,000,000 to support the Rail Operations Center and Bus Operations Center (ROC/BOC) Project increasing the total Board approved contract authority to a new NTE amount of \$43,932,000. The recommended board action above will increase the contract value by \$22,500,000 to a new NTE of \$66,432,000 through Fiscal Year 2021-2022 (FY21). Staff will continue to return to the board on an annual basis to request additional contract authorization as conditions and project requirements warrant

BACKGROUND

To date, staff has awarded TO's and Contract Modifications (MODS) totaling \$25,081,605 with approximately \$18,850,395 in authorized funding remaining. The SESS Consultant has been exceeding their DBE commitment by over ten (10) percent based on the TOs executed to date.

Examples of projects supported by this contract include Metro Operational Analyses, Crenshaw\LAX, Metro A (Blue) Line Upgrades, East San Fernando Valley Light Rail Transit and West Santa Ana Branch Transit. Attachment C includes a complete listing of the TO's and MODS executed over the initial two-years of the SESS contract. As indicated during initial approval, staff is now seeking an additional one year funding authorization to support Systems Engineering and Measure M projects.

DISCUSSION

With the approval of Measure M, the ongoing implementation of the Measure R program, required State of Good Repair initiatives, and the Board's desire to accelerate eligible projects prior to the 2028 Olympics, staff has engaged a SESS to provide a broad range of systems engineering design and related support services to supplement current Systems Engineering Department resources. Metro's capital program is over \$18 billion and 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, the SESS is capable of applying and withdrawing resources as the workload of projects fluctuates 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 in terms of additional staff and technical expertise.

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.

Other Considerations

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 is necessary to ensure that the required integration is achieved with respect to civil and electrical infrastructure, vehicles, control systems, communications, operations, maintenance, security, training, etc.

Prior to the procurement of the SESS, each project would use a different consultant for this work, resulting in inconsistent applications. This approach was 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 of system interoperability and safety at the forefront. A fully-integrated network requires a 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

In addition to the projects listed above and on Attachment C, 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:

- East San Fernando Valley Transit Corridor
- L (Gold) Line Eastside Phase 2 Extension
- C (Green) Line South Bay Rail Extension
- West Santa Ana Transit Corridor
- Sepulveda Pass Transit Corridor
- Vermont Transit Corridor
- G (Orange) Line BRT Improvements
- Westside D (Purple) Line Extension Section 3

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 not-to-exceed award value is based on the anticipated level of services that will be required through FY21. Funding for the individual TOs are funded through and included in the Board approved life-of-project (LOP) or departmental budgets; Therefore, this work is within the various project budgets.

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

Impact to Budget

Funding for TOs issued under this contract is provided by the specific project(s) requiring those services, as well as project studies, other general system engineering issues, and small-scale analyses. The current Funds allocated to this effort consist of federal, state, and local sources, including Measure R and Measure M. Using these funding sources maximizes the project funding parameters allowed by approved provisions and guidelines. Alternative funding sources will be applied as additional revenue funding opportunities become available.

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 to one year, greater accuracy of project scope and cost requirements are provided to the Board on an annual basis.

NEXT STEPS

Upon Board approval, staff will complete the process to amend the contract. Specific task orders will be subsequently issued on an as needed basis.

ATTACHMENTS

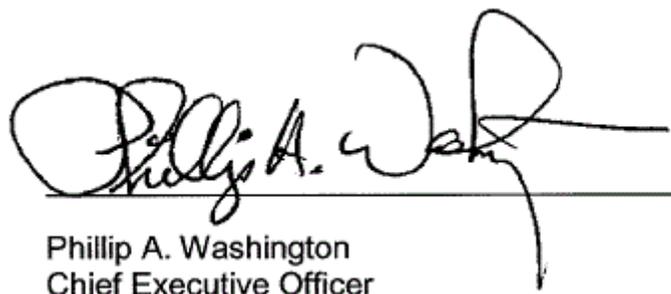
Attachment A: Procurement Summary
Attachment B: DEOD Summary
Attachment C: Proposed Task Order Work List

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