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REVISED
SYSTEM SAFETY, SECURITY AND OPERATIONS COMMITTEE
MARCH 19, 2015

SUBJECT: METRO RED LINE SCADA REPLACEMENT**ACTION: APPROVE CONTRACT MODIFICATION****RECOMMENDATION**

- A. Authorize the Chief Executive Officer to negotiate and execute a contract modification to Contract No. OP39603035 with ARINC Inc. (ARINC) to supply Information Technology equipment that comply with the most current Metro Information and Technology Services (ITS) Department recommended standards in an amount not-to-exceed \$1,500,000 inclusive of sales tax. This action increases the total contract value from \$9,697,765 to \$11,197,765.
- B. Authorize the Chief Executive Officer to purchase additional coverage on the existing \$15,000,000 supplemental project insurance for 10 years after contract award in excess of ARINC limited liability in an amount not-to-exceed \$225,000 inclusive of premium and fees. This action increases the total coverage cost from \$774,000 to \$999,000.

ISSUE

Contract No. OP39603035 was approved by the Board in November 2013 and was awarded to ARINC on January 15, 2014 for the replacement of the obsolete Red Line Supervisory Control and Data Acquisition (SCADA) System. ARINC was chosen as the most technically qualified firm with the lowest price. Modification No.1 was executed July 14, 2014 to include integration of the Foothill and EXPO-II light rail expansion projects.

The technical specifications for the SCADA system Information Technology equipment were based on published ITS standards at the time of award as documented in the Metro "Information Technology Architecture and Infrastructure Standard MIT-01". The ITS department is planning significant changes to these standards based on recommendations of their security consulting firm (Van and Associates). A contract modification is needed to ensure the SCADA system design complies with the new anticipated standards.

In November 2013, the Board authorized the CEO to purchase an additional \$15 million project specific professional liability insurance policy with a \$6.8 million self-insured retention to support this project at a cost not to exceed \$862,500. The supplemental insurance covers exposure resulting from Metro's contractual obligation to limit the contractor's professional liability to the value of the contract. The cost of the current policy was \$774,000 to cover the replacement of the Red Line SCADA system only. Approval of this action will add coverage for Expo II and Foothill IIA system integration activities.

DISCUSSION

Metro Rail Operations and Wayside Maintenance rely heavily on the SCADA system to provide supervisory and control functions essential for the safe, reliable and efficient operation of the Red and Purple lines. These functions include centralized control and/or monitoring of train movement, traction and auxiliary power, fire detection and suppression, gas detection, emergency tunnel and ancillary ventilation, elevators and escalators, radio, emergency telephone, Transit Passenger Information System (TPIS) and intrusion. The existing system can no longer be effectively maintained and cannot be expanded for the planned Metro Purple Line Extension.

Adherence to the latest ITS infrastructure and architecture recommendations will enable a seamless and enhanced integration of SCADA with other enterprise services including:

- State of the art cyber security
- System backup and disaster recovery
- Management access to SCADA data for incident management
- M3 Materials Management System
- Nextrip Rail
- BOC/ROC integration
- Emergency backup control center

Next generation firewalls will be employed to provide sophisticated cyber security enabling a level of threat detection, threat prevention, and management necessary to respond to increasing cyber threats against our Nation's critical infrastructure and to provide the configuration management and forensic data essential for effective security oversight and audit.

Adoption of the latest ITS virtual application and desktop infrastructure standards will greatly simplify maintenance, system expansion and in assuring 100% compliance with Metro Information Security Policy. This architecture will also support the integration of bus and rail into a multi-modal operations center with essentially no modification.

Adoption of the latest ITS data storage architecture will enable SCADA system configuration and alarm/event database data to be integrated into the ITS automated

backup and disaster recovery system ensuring the ability to restore system operation on any level in a minimum amount of time.

DETERMINATION OF SAFETY IMPACT

Approval of this item would enhance the safety of the Rail SCADA system by enhancing cyber security and system availability.

FINANCIAL IMPACT

The amount requested to fund Recommendation A is \$1,500,000. This funding is included in the FY15 budget in: Project 205038, Replace Aging SCADA System; Cost Center 3960, Rail Transit Engineering; Account 53102, Acquisition of Equipment.

The amount requested to fund Recommendation B is \$225,000. Funding of \$112,500 is included in the FY15 budget in: Project 860301, EXPO Blvd LRT Const Phase II, Cost Center 3960, Rail Transit Engineering; Account 53102, Acquisition of Equipment. Funding of \$112,500 is included in the FY15 budget in: Project 860200, Gold Line Foothill Extension, Cost Center 3960, Rail Transit Engineering; Account 53102, Acquisition of Equipment.

Since this is a multi-year project, the Project Manager and Executive Director, Maintenance will ensure this effort will be funded in future years.

Impact to Budget

Funding sources for this project are Measure R Transit 35%. For the Expo II and Foothill 1A allocations, Measure R Transit 35% is eligible for use on new rail capital projects. The balance of the action will be funded using Prop A 35% Rail funds. Prop A 35% Rail is eligible for Rail Operating and Capital. No other funding sources were considered.

ALTERNATIVES CONSIDERED

The Board may choose to not authorize the subject contract modification. This alternative is not recommended. Compliance with the MIT-01 standard is mandatory and any deviation will adversely affect the ability to implement cost effective security, enterprise integration and scalability.

Metro could decide not to purchase additional supplemental insurance to cover Expo II and Foothill IIA system integration activities if the Board determines that additional exposure related to the inability to collect damages for ARINC professional negligence for their integration activities is an acceptable risk. This alternative is not recommended by Metro Risk Management.

NEXT STEPS

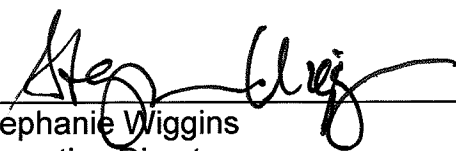
If approved, this contract modification shall ensure the delivery of a SCADA system compliant with ITS standards within six months. Contingency plans are in place to ensure there will be no impact to startup of Foothill and Exposition Light Rail.

ATTACHMENTS

- A. Procurement Summary
- B. Contract Modification Log

Prepared by: Charles Weissman, Supervising Engineer

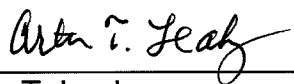
Questions: Christopher Reyes, Senior Administrative Analyst, Operations
(213) 922-4808



Stephanie Wiggins
Executive Director
Vendor/Contract Management



Robert Holland
Interim Chief Operations Officer



Arthur T. Leahy
Chief Executive Officer

PROCUREMENT SUMMARY

ADDITIONS & DELETIONS TO SCADA TECHNICAL SPECIFICATION

1.	Contract Number: OP39603035		
2.	Contractor: ARINC		
3.	Modification Work Description : Additions & Deletions to SCADA Technical Provisions		
4.	Work Description: Modify Information and Security equipment specifications to comply with latest ITS department standards.		
5.	The following data is current as of :	March 6, 2015	
6.	Contract Completion Status:		
	Bids Opened	N/A	Financial Status
	Contract Awarded	1/15/14	Contract Award Amount \$6,178,383.00
	NTP	1/3/14	Total of Modifications approved 2 <u>\$3,519,382.00</u>
	Original Completion Date	1/3/21	Pending Modifications (including this action) 4 <u>\$1,500,000.00</u>
	Current Estimate Completion date	1/3/21	Current Contract Value (with this action) \$11,197,765
6.	Contract Administrator: Nathan Jones III	Telephone Number: (213) 922-6101	
7.	Project Manager: Chuck Weissman	Telephone Number: (323) 563-5232	

A. Procurement Background

This proposed modification is for an amount not-to-exceed (NTE) \$1,500,000. The performance of work contemplated under this modification is for a period of two (2) years. The period of performance of this contract is not changed by this modification.

The contract was administered in accordance with the LACMTA approved procedures for contract modifications.

B. Cost/Price Analysis

MASD is in the process of completing an audit and it is anticipated that the MASD audit will be completed within 30 days. Upon completion, staff will include that date in its cost analysis and an approved pre-negotiation plan with the goal of finalizing negotiations and executing the award/modification within 30 days.

The final negotiated amount will comply with all requirements of Metro's Acquisition Policy and Procedures.

C. Small Business Participation

The Diversity and Economic Opportunity Department (DEOD) established a 10% Small Business Enterprise (SBE) goal for this procurement. ARINC made a 12.64% SBE commitment. The current SBE participation is 1.21%, and the project is 27% complete. The primary work to be completed by the DBE subcontractor is for the purchase, set-up and testing of equipment. Metro directed ARINC to delay purchase of equipment in anticipation of new Information Technology standards being developed by the ITS department. The subject change order reflects these new ITS standards. ARINC will mobilize the subcontractor to purchase the equipment immediately upon notice to proceed of this change order. It is expected that ARINC will achieve its SBE commitment throughout the term of the contract.

SMALL BUSINESS GOAL	12.64% SBE	SMALL BUSINESS COMMITMENT	12.64% SBE
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	DBE Subcontractor	Status	% Committed	Current Participation¹
1.	Anysolv Technologies, Inc.	Performing	12.64%	1.21%
	Total Commitment		12.64%	1.21%

¹Current Participation = Total Actual amount Paid-to-Date to DBE firms ÷ Total Actual Amount Paid-to-date to Prime.

CONTRACT MODIFICATION LOG

**ADDITIONS & DELETIONS TO SCADA TECHNICAL SPECIFICATION / CONTRACT
NO. OP39603035**

Mod No.	Original Contract	1/15/14	\$6,178,383.00
1	SCADA Expo II & Foothill I Light Rail Integration Change Order	7/14/14	\$3,519,382.00
2	Administrative change only	11/14/14	0.00
3	Additions & Deletions to SCADA Tech Spec – PENDING BOARD APPROVAL		\$1,500,000.00
	<u>Total</u>		<u>\$5,019,382.00</u>