



Metro

Metropolitan Transportation Authority

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**OPERATIONS COMMITTEE
MARCH 15, 2007**

SUBJECT: TRANSIT PASSENGER INFORMATION SYSTEM

**ACTION: APPROVE AN INCREASE IN THE LIFE OF PROJECT
BUDGET FOR MRL VARIABLE MESSAGE SIGN UPGRADE
PROJECT AND APPROVE CONTRACT AWARD**

RECOMMENDATION

- A. Increase the life-of-project (LOP) budget for the Metro Red Line (MRL) Variable Message Sign (VMS) Upgrade project by \$1,201,842, increasing the life-of-project budget from \$1,250,000 to \$2,451,842.
- B. Authorize the Chief Executive Officer to:
 - 1. award a firm fixed-price contract, Contract No. OP39601922, with JM Fiber Optics, Inc., the lowest responsive and responsible bidder, to replace the existing Transit Passenger Information System on the Metro Red Line for an amount not to exceed \$2,228,941, inclusive of sales tax;
 - 2. execute contract modifications in the amount not to exceed \$222,901.

RATIONALE

This project will upgrade the existing MRL VMS with a new integrated Public Address (PA)/VMS passenger information system. The project will remove the existing system and single-line LED-based VMS signs and replace them with high-resolution LCD displays.

Control of the existing VMS System for the Metro Red Line originates from the Metro Video Security System observation room located at the Metro Central Control Facility. The information consists of live ad-hoc and scheduled messages displayed on the current LED variable message signs, such as notices of out-of-service elevators, notification of service interruptions or delays, and general safety messages. Additionally, pre-recorded messages are configured to automatically display in the event of an emergency at any one of the sixteen Metro Red Line Stations.

The current VMS System was installed during Metro Green Line construction in 1995 and is now in excess of ten years old. The component failure rate is increasing in a manner typical of an electronic communications system of its age. The vendor no

longer supports the system and research indicates that replacement parts are not readily available from any known source. This exposes Metro to heightened maintenance and operation risks due to the safety-critical nature of the VMS System.

The new Transit Passenger Information System (TPIS) will have 46-inch LCD monitors that are easier to read than the current 4-foot long, 6-inch high LED signs.

The system will provide the following critical information to the public:

- Train arrival time and track number.
- Train departure time and track number.
- Information on train route and final destination.
- Information on service interruptions or delays.
- Notification if approaching train is not in service.
- Public service announcements.
- Warning, prohibitive, and general safety messages in variable formats.
- Emergency instructions and evacuation procedures.

The new TPIS will be integrated with the existing Metro PA system so that the visual messages on the VMS system and the audible messages from the PA system will be coordinated. Better coordination of the two types of messages is necessary to maintain compliance with Americans with Disabilities Act (ADA) regulations.

The new TPIS will be integrated with the existing Supervisory Control and Data Acquisition (SCADA) system so that the system can display information about train arrival/departure times, train route, and final destination to passengers.

An increase to the life-of-project budget is required because the bid for the lowest responsive and responsible bidder was greater than the amount originally estimated for this work.

This contract will procure all equipment and software needed to install a new TPIS for the Metro Red Line and integrate it with the existing Metro PA system and the SCADA system. A commercially available, web-enabled, centralized audio/visual content management system will be installed at the Central Control Facility.

FINANCIAL IMPACT

Funding of \$1,250,000.00 for this contract is included in the FY '07 budget in cost center 2610 (System Security & Law Enforcement), project 204062 (MRL Variable Message Sign Upgrade), Line Item/Account 53102 (acquisition of equipment), Task 03.001. The increased funding will be included in the FY '08 budget in the capital program for the subject project.

OPTIONS

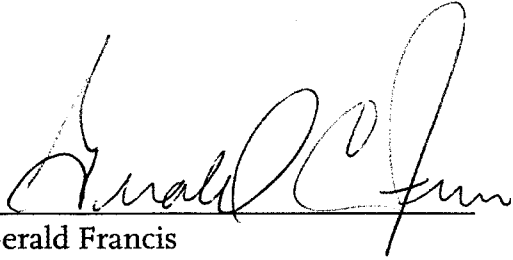
Metro has evaluated the possibility of not replacing the existing Transit Passenger Information on the Metro Red Line. This alternative is not recommended because the spare parts inventory is depleted and a reliable source for spare parts and service cannot be identified. This exposes Metro to unacceptable maintenance and operational risks due to the critical safety nature of this system. In addition, failure to complete the upgrade could result in the loss of future DHS funding.

A second alternative is to reduce the scope of the project to complete within the existing budget by upgrading fewer stations. This alternative is not recommended because the result will be two separate systems in Metro Red Line stations which could be confusing to the public and could delay the display of important messages since they will need to be composed on separate systems. Also maintenance costs will be higher since two separate systems must be maintained.

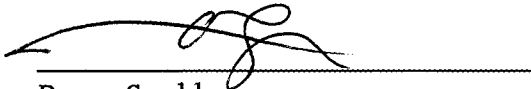
ATTACHMENTS

- A Procurement Summary
- A-1 Procurement History
- A-2 List of Subcontractors
- A-3 Bid Tabulations

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Gerald Francis
General Manager, Metro Rail Operations



Roger Snoble
Chief Executive Officer

**BOARD REPORT ATTACHMENT A
PROCUREMENT SUMMARY**

TRANSIT PASSENGER INFORMATION SYSTEM

1.	Contract Number: OP39601922		
2.	Recommended Vendor: JM Fiber Optics, Inc.		
3.	Cost/Price Analysis Information:		
	Bid Price: \$2,228,941.21	Recommended Price: \$2,228,941.21	
	B. Details of Significant Variances are in Attachment A-1.D		
4.	Contract Type: Firm Fixed Price		
5.	Procurement Dates:		
	A. Issued: November 2, 2006		
	B. Advertised: November 4, 2006		
	C. Pre-proposal Conference: November 17, 2006		
	D. Proposals Due: Step One Technical, December 15, 2006 Step Two Price Bid, February 14, 2007		
	E. Pre-Qualification Completed: January 26, 2007		
	F. Conflict of Interest Form Submitted to Ethics: February 15, 2007		
6.	Small Business Participation:		
	A. Bid/Proposal Goal: No-goal recommended	Date Small Business Evaluation Completed: September 13, 2006	
	A. Small Business Commitment: 0% Details are in Attachment A-2		
7.	Invitation for Bid Data:		
	Notifications Sent: 10	IFBs Picked up: 46	Bids Received: Two (2)
8.	Evaluation Information:		
	<u>A. Bidders Names:</u> JM Fiber Optics Info Vision Tech (IVT)	<u>Bid Amount:</u> \$2,228,941.21 \$2,991,899.10	<u>Best and Final Offer Amount:</u> \$ Not Applicable
	B. Evaluation Methodology: Details are in Attachment A-1.C		
9.	Protest Information:		
	A. Protest Period End Date: March 17, 1007		
	B. Protest Receipt Date: N/A		
	C. Disposition of Protest Date: N/A		
10.	Contract Administrator: Amy Ly	Telephone Number: 213-922-2632	
11.	Project Manager: Dan Lindstrom	Telephone Number: 213-922-3121	

**BOARD REPORT ATTACHMENT A-1
PROCUREMENT HISTORY**

TRANSIT PASSENGER INFORMATION SYSTEM

A. Background on Contractor

JM Fiber Optics, Inc. with its office located in Chino, California, has been in business to provide fiber optic communication products, integrated systems, and technician certification training since 1992. JM Fiber Optics, Inc. has provided communication equipments and services to commercial and government organizations including North County Transit District in Escondido, United States Department of the Interior - Bureau of Reclamation, and Metro.

JM Fiber Optics, Inc. recently implemented its ISO 9001-2000 compliant quality system and is quality certified from General Dynamics Network Systems, Lockheed Martin Systems Integration, Bechtel Nevada, and JPL. JM Fiber Optics is a certified small disadvantaged minority business enterprise (MBE, SMBE, and DBE). In 2006, JM Fiber Optics was recognized by the Business Press as a Top 20 Minority Owned Business.

B. Procurement Background

This procurement was conducted as a Two-Step Sealed Bid. Step One consists of the request for submission, evaluation and discussion of a technical proposal. No pricing is requested in Step 1. The object is to determine the acceptability of the system being proposed. A Source Selection Committee was established to evaluate the proposals to determine acceptability. Step Two involves the submission of sealed price bids by those companies which were determined by the Committee to have submitted acceptable technical proposals. Recommendation for award is then made to the lowest priced, responsive, responsible bidder.

The Diversity and Economic Opportunity Department (DEOD) did not recommend a Disadvantaged Business Enterprise (DBE) participation goal for this procurement due to lack of subcontracting opportunities. However, the Prime Contractor, JM Fiber Optics Inc., is a certified Disadvantaged Business Enterprise (DBE) firm. Therefore, its participation will be counted 100% toward Metro's overall goal.

C. Evaluation of Proposals

The Source Selection Committee conducted a comprehensive evaluation of the technical proposals in accordance with the evaluation criteria contained in the IFB. Two technical proposals were received and presented to the Committee for evaluation. Both proposals were deemed acceptable and those companies were invited to submit price bids. Two submitted price bids and were determined to be responsive, responsible, and technically qualified bidder(s) with JM Fiber Optics, Inc. submitting the lowest price.

D. Cost/Price Analysis

The recommended price has been determined to be fair and reasonable based upon adequate price competition and award to lowest responsive, responsible bidder. Variance from the Metro Estimate is the result of several factors. The LCD display mounts needed are more elaborate than the ones envisioned by Metro Estimating, in order to protect against damage, additional software maintenance and support are needed during installation by Metro, and additional labor is needed to meet the required four hour maintenance response time.

Bid Amount	Metro Estimate	Recommended Amount
\$2,228,941.21	\$1,372,064.84	\$2,228,941.21

BOARD REPORT ATTACHMENT A-2
LIST OF SUBCONTRACTORS

TRANSIT PASSENGER INFORMATION SYSTEM

PRIME CONTRACTOR – JM FIBER OPTICS, INC. (DBE Prime)

Small Business Commitment

Other Subcontractors

JM Fiber Optics, Inc. - 100% DBE

None

Total Commitment 100% DBE