



**Metro™**

Los Angeles County  
Metropolitan Transportation Authority

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**OPERATIONS COMMITTEE  
MARCH 17, 2005**

**SUBJECT: MAINTENANCE AND MATERIEL MANAGEMENT SYSTEM (M3)**

**ACTION: APPROVE INCREASE TO M3 LIFE-OF-PROJECT BUDGET AND  
MODIFICATION TO CONTRACT NO. PS9240-1264 WITH SPEAR  
TECHNOLOGIES**

**RECOMMENDATION**

- A) Increase the Maintenance and Material Management System (M3) Life-of-Project budget by \$4.5 million from \$28.8 million to \$33.3 million, primarily due to a contract modification resulting from schedule delays to accommodate Kiosk implementation, a change in the bus division roll-out plan, the 2003 work stoppage and additional Metro labor resulting from the schedule extension; and
- B) Amend the FY05 budget to transfer \$1.7 million of revenues and expenditures from the Enterprise Fund operating budget to the capital budget and to add \$2.8 million of Prop A 35% Rail Funds; and
- C) Authorize the Chief Executive Officer to execute contract modification number 7 to Contract No. PS-9240-1264 with Spear Technologies for a firm fixed price of \$2,648,651, less the amount funded by Board delegated authority of \$1,050,366, and authorize an additional delegated authority of \$100,000, increasing the total contract value from \$20,876,212 to \$22,574,497.

**RATIONALE**

In January 2003, the Board approved a contract award to Spear Technologies for acquisition and implementation of the M3 system. The Spear contract is a firm fixed price contract for \$18,976,212 plus the Board delegated authority of \$1,900,000 for unanticipated

implementation costs for a total contract award of \$20,876,212. To date, the Project has obligated the entire Board approved amount of \$18,976,212 and \$1,896,234 of the \$1,900,000 Board delegated authority.

The M3 Project was planned to be implemented in fifteen months but was delayed nine months to accommodate Kiosk implementation, a change in the bus division rollout plan and the 2003 work stoppage. After assessing the impact of the schedule delays, Spear Technologies submitted revised change proposal SM050 in the amount of \$2,648,651, to complete the project. To mitigate any further project delays while seeking Board approval for contract modification, Project Management awarded two releases totaling \$1,050,366 under Board-delegated authority. A remaining balance of \$1,598,285 is required to complete the project. The remaining balance plus the two releases equal the contract modification of \$2,648,651 as requested in Recommendation C.

In June 2004, the Board approved a Life-of-Project increase \$4.795 million due to additional staff required for testing, additional cabling and network equipment and development of business requirements specifications erroneously omitted in the original life-of-project request. This request increases the Life-of-Project by an additional \$2.831 million for Metro labor and unanticipated allocated overhead costs.

## **FINANCIAL IMPACT**

The authorized Life-of-Project budget approved by the Board in the FY05 budget is \$28.8 million. This action will increase the Life-of-Project budget by \$4.5 million to \$33.3 million. Funds for this change will come from the following sources:

- \$1.7 million of expenses and revenues will be transferred from the Enterprise Fund operating budget to the capital budget, specifically to the M3 Project. Agency-wide there will be no increase to the budgeted number of FTEs; and
- \$2.8 million will be funded with Prop A 35% Rail Funds. Overall, the M3 Project is funded one-third rail funds and two-thirds bus funds, consistent with the level of effort for each mode.

Attachment B provides a detailed cost status.

## **IMPACT ON OTHER CONTRACTS**

The M3 schedule extension necessitates the continued use of the existing Vehicle Maintenance System (VMS). The VMS and the Customer Information System (CIS) both operate in the IBM mainframe environment. The IBM mainframe software license and maintenance contracts have been extended to support the continued use of these systems. Upon completion of the M3 implementation and the conversion of CIS to a UNIX environment, which will occur concurrently, the IBM mainframe environment will be retired.

The IBM mainframe contract extension was funded from cost savings realized from cost reductions in telecommunications services.

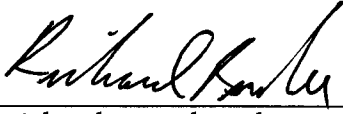
### **ALTERNATIVES CONSIDERED**

One alternative is to seek another system integrator to complete the M3 system implementation. This approach is not recommended as a new system integrator would not have the depth of knowledge and experience as Spear Technologies, who is the product owner. Also, this approach will likely be significantly more costly due to the steep learning curve and project ramp-up that would be required for the new integrator to be effective. Another alternative would be to discontinue the implementation of the remaining business units, however, this alternative is neither practical nor desirable as it does not allow staff to improve its asset management function.

### **ATTACHMENT(S)**

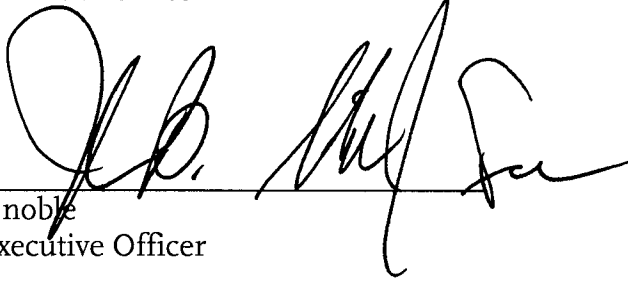
- A. Procurement Summary
  - A-1 Procurement History
  - A-2 List of Subcontractors
- B. Project Cost Status

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**BOARD REPORT ATTACHMENT A  
PROCUREMENT SUMMARY**

**MAINTENANCE AND MATERIEL MANAGEMENT SYSTEM  
CONTRACT MODIFICATION**

1.	Contract Number: PS9240-1264, Modification No.7		
2.	Recommended Vendor: Spear Technologies, Inc.		
3.	Cost Analysis Information:		
	Bid/Proposed Price: A. \$2,818,651	Recommended Price: \$2,648,651	
	B. Details of Significant Variances are in Attachment A-1.D		
4.	Contract Type: Firm Fixed Price		
5.	Procurement Dates:		
	A1. Issued: Change Order No. SM050 issued on July 9, 2004.		
	B. Advertised: n/a		
	C. Pre-proposal Conference: n/a		
	D. Proposals Due: n/a		
	E. Pre-Qualification Completed: n/a		
	F. Conflict of Interest Form Submitted to Ethics:		
6.	Small Business Participation:		
	A. Contract Goal: 34.33%	Date Small Business Evaluation Completed: n/a	
	Small Business Commitment: N/a		
7.	Invitation for Bid/Request for Proposal Data:		
	Notifications Sent:	Bids/Proposals Picked up:	Bids/Proposals Received:
8.	Evaluation Information:		
	A. Bidders/Proposers Names:	<u>Bid/Proposal Amount:</u>	<u>Best/Final Offer Amount:</u>
	A. Evaluation Methodology: Cost Analysis and Technical Analysis Details are in Attachment A-1.C		
9.	Protest Information:		
	A. Protest Period End Date:		
	B. Protest Receipt Date: n/a		
	C. Disposition of Protest Date: n/a		
10.	Contract Administrator: Pat Lane-Goodson	Telephone Number: 922-4639	
11.	Project Manager: Regina Lim	Telephone Number: 922-4545	

## **BOARD REPORT ATTACHMENT A-1**

### **PROCUREMENT HISTORY**

#### **MAINTENANCE AND MATERIEL MANAGEMENT SYSTEM CONTRACT MODIFICATION**

##### A. Background on Contractor

Spear Technologies was founded in 1997. Spear Technologies has almost eight years of experience designing, implementing and integrating maintenance and materiel management systems specifically for the transit industry. In the last four years, Spear has conducted implementation at New York City Transit, San Francisco, Municipal Railway, Amtrak and Dallas Area Rapid Transit as well as many other smaller projects for various transit agencies.

##### B. Procurement Background

Contract No. PS-9240-1264 is a fixed price contract for the Acquisition and Implementation of a Maintenance and Materiel Management System. The Contract was awarded to Spear Technologies in an amount not to exceed \$18,976,212, with a Board delegated amount NTE \$1,900,000 to negotiate and execute change orders associated with this project.

To date, the Project has obligated the entire Board approved amount of \$18,976,212 and \$1,896,234 of the \$1,900,000 Board delegated authority. Changes to the Contract have included the addition of new functionalities and associated training, modifications to the system, schedule adjustments, wiring of division locations and other unanticipated project refinements.

##### C. Evaluation of Proposals

Spear Technologies submitted an initial proposal in the amount of \$2,818,651. Negotiations by Procurement staff resulted in a final price of \$2,648,651 for delays associated with Kiosk implementation, a change in the bus division rollout plan and the 2003 work stoppage. This amount was reviewed by the Management Audit Services Department.

##### D. Cost Analysis Explanation of Variances

The recommended price has been determined to be fair and reasonable based upon cost analysis, independent cost estimates, negotiations with Spear and MASD audit of the Contractor's cost proposal.

## BOARD REPORT ATTACHMENT A-2

### LIST OF SUBCONTRACTORS

#### SMALL BUSINESS PARTICIPATION (PS-9240-1264)

This Contract has a Disadvantaged Business Enterprise (DBE) participation commitment of 33.34%. The Contract was awarded on January 29, 2003 and is approximately 89% complete. Current DBE attainment<sup>1</sup> based on the contract amount<sup>2</sup> is 33.72% and current DBE participation<sup>3</sup> based on total actual amount paid-to-date to Contractor and total actual amount paid-to-date to DBEs is 38.13%.

The two (2) originally listed DBE subcontractors have performed on the contract as listed. The Contractor has demonstrated good faith efforts to maximize DBE participation by utilizing two (2) additional DBE firms.

Original Award Amount	\$ 18,967,694
Current Contract Amount <sup>2</sup>	\$ 20,827,803
Total Actual Amount Paid to Date to Prime	\$ 18,568,719

	% Commitment	% Current Attainment	% Current Participation	Current Status
The Natchez Group	20.62%	02.59%	02.90%	Performing
MicroLink Enterprise	12.72%	13.89%	15.89%	Exceeding
Interbase Corp.	N/A	12.29%	13.79%	Performing
Computer Business Programs	N/A	04.95%	05.55%	Performing
<b>TOTAL</b>	<b>33.34%</b>	<b>33.72%</b>	<b>38.13%</b>	<b>Exceeding</b>

<sup>1</sup>Current Attainment = Total Actual Amount Paid-to-Date to DBE Subs ÷ Total Current Contract Amount

<sup>2</sup>Current Contract Amount = Original Contract Value + Contract Cost Modifications

<sup>3</sup>Current Participation = Total Actual Amount Paid-to-Date to DBE Subs ÷ Total Actual Amount Paid-to-Date to Prime

November 2004 brdrt PS-9240-1264  
Draft 1 11/04/04  
Based on September 2004's Form103

**ATTACHMENT B  
PROJECT COST STATUS  
MAINTENANCE AND MATERIEL MANAGEMENT SYSTEM**

	Spears Technology	Board Delegated Authority	Metro Labor Costs	Equipment & Development Costs	Total
Original life-of-project budget	\$ 18,976,212	\$ 1,900,000	\$ 3,000,000	\$ 130,000	\$ 24,006,212
Changes approved at FY05 budget adoption:					
• Additional staff required for testing & implementation			2,200,000		2,200,000
• Additional cabling, computer & network equipment				1,218,512	1,218,512
• Development of business requirements specifications by Westin				1,376,478	1,376,478
<b>Amended life-of-project costs:</b>	<b>18,976,212</b>	<b>1,900,000</b>	<b>5,200,000</b>	<b>2,724,990</b>	<b>28,801,202</b>
Change order amendments from Board delegated authority:					
• Software changes & modifications to FIS interface	29,850	(29,850)			
• Wiring for fuel system, Fleetwatch. Run conduit for Div. 10, backup controllers, proximity card & NEMA box for Divs. 6 & 10	94,676	(94,676)			
• Training not purchased	(84,302)	84,302			
• Software changes to inventory chargeback, sales tax add on, direct purchase requests, VMS conversion data modifications	50,626	(50,626)			
• Wiring for Fleetwatch central controller & technical repair training	28,312	(28,312)			
• Wireless network installation at Divs. 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 15, 18, 20, 21, 22, 61A, 61B, RRC	318,503	(318,503)			
• Licensing for Kiosk software & two year maintenance agreement	154,560	(154,560)			
• Manpower reallocation to accommodate LOP schedule delay	59,111	(59,111)			
• Cancelled change interface to document processing management system, decision support executive information system	(96,669)	96,669			
• Relocate Div 5 remote island head to accommodate new buses	11,462	(11,462)			



**ATTACHMENT B  
PROJECT COST STATUS  
MAINTENANCE AND MATERIEL MANAGEMENT SYSTEM**

	Spears Technology	Board Delegated Authority	Metro Labor Costs	Equipment & Development Costs	Total
• Wireless network installation at Divs. 4, 14, 34 and non revenue group	23,353	(23,353)			
• Cancelled proximity card readers	(112,087)	112,087			
• Weekend work for inventory carousel upgrades at Divs. 7, 9, 20 & software modification from standard pricing of inventory	55,303	(55,303)			
• Wireless network installation of security access points devices	175,488	(175,488)			
• Compression of RRC materials implementation	49,826	(49,826)			
• Wiring for Fleetwatch, installing electrical conduit at Div 3, modify Fleetwatch to support new HID proximity cards	22,894	(22,894)			
• Electrical work at Div 34	2,798	(2,798)			
• Extend ROC rollout one month & add rollout support, second data conversion & validation of the RIMS data to M3	26,038	(26,038)			
• System enforcement of work rules unique to Metro	36,126	(36,126)			
<b>Amended life-of-project costs</b>	<b>19,822,080</b>	<b>1,054,132</b>	<b>5,200,000</b>	<b>2,724,990</b>	<b>28,801,202</b>
<b>Current recommendations:</b>					
Contract modification initiated by Metro to cover October 2003 strike, schedule delay to accommodate Kiosk implementation and change in bus division roll-out					
• Amendment issued Aug 14, 2004	472,094	(472,094)			
• Amendment issued Sept 21, 2004	578,272	(578,272)			
• Change pending-SM050	1,598,285	100,000			1,698,285
Metro labor costs					
• Unbudgeted overhead costs FY04			1,040,742		1,040,742
• Extend implementation schedule nine months to June 30, 2005. Transfer Wages expense from Enterprise Fund to Capital Fund.			1,790,356		1,790,356
<b>Amended life-of-project costs</b>	<b>\$ 22,470,731</b>	<b>\$ 103,766</b>	<b>\$ 8,031,098</b>	<b>\$ 2,724,990</b>	<b>\$ 33,330,585</b>

