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CONSTRUCTION COMMITTEE
MARCH 14, 2001

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PROJECT: METRO GREEN LINE

CONTRACT: H1100, AUTOMATIC TRAIN CONTROL UNION SWITCH AND SIGNAL INC.

ACTION: CONTRACT MODIFICATION IN THE AMOUNT OF \$15,664

Metropolitan
Transportation
Authority

One Gateway Plaza
Los Angeles, CA
90012-2952

RECOMMENDATION

Authorize the Chief Executive Officer to execute Change Order No. 52 for additional work resulting from the extension of milestones in the amount of \$522,504 to the Contractor and a credit amount of \$506,840 for deleted work for a net amount of \$15,664; increasing the total Contract Value from \$60,229,235 to \$60,244,899.

Within the Construction Committee authority: Yes No N/A

MERIT

The MTA Project Office, Office of Procurement, and County Counsel have reviewed the facts underlying each change and concur that it has been merited under the terms and conditions of the Contract and Public Utilities Code §130243. The Management Audit Services Department (MASD) has completed the required audit of this Change Order and all outstanding issues have been resolved.

BACKGROUND

Contract No. H1100 is a firm fixed-priced, state and local funded procurement for the Automatic Train Control System, Metro Green Line. The work being performed under this contract is the design, manufacture, installation, and testing of the Automatic Train Control System (ATCS) for an automated with driver system that could also be capable of driverless operations on the Metro Green Line. The H1100 Contractor is responsible for managing the interface between this contract (H1100) and the LA Standard Car Contract No. P2000 during the design and testing phase. It is mandatory that the P2000 vehicles be available for testing to enable the H1100 Contractor to proceed with the work.

Change Order No. 52 will revise completion of testing and contract completion to December 31, 2000.

In the near future, additional Board action will be needed to further extend the contract. This contract interfaces with the LA Standard Car Contract P2000 during design and testing phase. The P2000 Contract will not deliver the final P2000 car until February 2002.

On December 18, 1991, Contract No. H1100, Automatic Train Control System, was awarded to Union Switch & Signal Inc., in the amount of \$57,785,000. The High Performance Transit Vehicles Contract No. P1900 was also awarded to the Sumitomo Corporation on December 18, 1991. Both contracts received a Notice to Proceed on January 13, 1992, and subsequently received suspensions on January 17, 1992.

On January 22, 1992, the P1900 Contract was Terminated for Convenience. On April 23, 1992, Contract No. H1100 was reinstated. As a result of the cancellation of Contract No. P1900 and the execution of Contract No. P2000, with deliveries beginning 1995, the H1100 schedule was revised to reflect new vehicle deliveries. Change Order No. 3 extended the completion date from December 31, 1994 to February 27, 1995.

In 1995, the P2000 Contractor did not deliver the Light Rail Vehicles (LRV) as scheduled; thereby, impacting Contract No. H1100. Change Order No. 23 extended completion date from February 27, 1995 to November 15, 1996. Since 1996, the delivery of the LRV's has continued to be delayed until the first LRV was received in early 1999. The first LRV acceptance test did not begin until March of 2000. This Change Order No. 52 definitizes the additional and deleted work, which is discussed below.

COST/PRICE ANALYSIS

DESCRIPTION	PROPOSAL AMOUNT	MTA ESTIMATE	NEGOTIATED AMOUNT
Change Order No. 52	\$425,868		
Add	\$425,868	\$557,427	\$522,504
Delete	-0-	-\$613,261	-\$506,840
Total	\$425,868	(\$55,834)	\$ 15,664

The recommended amount of \$15,664 has been determined to be fair and reasonable based upon fact finding, clarifications and pre-award audit performed by Management Audit Service Department (MASD). All audit issues have been resolved.

Staff negotiated a mutual agreement for Change Order No. 52 in the amount of \$522,504 for additional work and a credit amount of \$506,840 for the deletion of Data Radio, Automatic Coupling and Uncoupling, and Automatic Train Demonstration for a total net amount of the \$15,664. MASD questioned \$91,034 of the Contractors proposal, but these were resolved during negotiations. Staff determined to unilaterally base the value of the deleted items on the MTA Estimate and Technical evaluation. The key elements of these discussions are contained in the following paragraphs.

The \$522,504 for additional work consists of the following items:

- \$125,350 to compensate the contractor for the increased costs of the carsets due to inflation;
- \$6,003 to reimburse the contractor for travel and living costs associated with the pre-functional operational test of the carborne equipment;
- \$63,756 to compensate the contractor for approximately 15 iterations of Change Notice No. 77 between March 1996 to present;
- \$32,270 to compensate the contractor for changes to the wayside control system to allow for P2020 LRVs equipped with Phase II carborne equipment to operate at the same time as P2000 LRVs equipped with Phase IIIA carborne equipment;
- \$23,156 to compensate the contractor for providing the ability for the Vehicle Health Monitor to be useable in all operating modes;
- \$28,273 to compensate the contractor for providing the ability for the Vehicle Annunciator System to be useable in all operating modes;
- \$46,243 to compensate the contractor for the addition of an "Attendant Key Switch" to identify the on-board presence of an attendant; and
- \$197,453 to compensate the contractor for the installation and testing of the carborne equipment.

The \$506,840 credit amount consists of the following items:

- \$130,000 due to the deletion of the requirement for the ATC equipment to interface with the Data Radio;
- \$180,000 due to the deletion of the requirement for the contractor to provide a capability for the ATC equipment to perform automatic coupling and uncoupling of the P2000 LRVs; and
- \$196,840 due to the deletion of the requirement for the contractor to provide test support during the Automatic Train Control Demonstration.

The MTA Credit Estimate of \$55,834 includes a 20% mark up on direct labor. MASD disallowed the 20% mark up in the Contractors Proposal and the Contractor accepted MASD recommendation. The deleted items were included in the base contract. To maintain the contractual and schedule obligations, the Contractor began portions of items now being deleted. The costs incurred by the Contractor were included in the final negotiations. These costs incurred were not included in the MTA Estimate. As a result, the difference of \$71,498 (Credit of \$55,834, MTA Estimate plus \$15,664, Negotiated Amount) represents work already completed.

FINANCIAL IMPACT

Original Contract Award	\$ 57,785,000
Current Cumulative Contract Value	\$ 60,229,235
This Action	\$ 15,664
New Cumulative Contract Value	\$ 60,244,879

The funds for this action are available within the Board approved project Metro Green Line budget of \$712,302,000. The recommended action will increase the H1100 Total Contract Value by \$15,664. The current status of the contract, including the impact of this action, is shown in Attachment 1.

This recommended action does not impact the Fiscal Year Budget or the Sources of Funds, either in the fiscal year or over the life of the project.

Potential for Cost Recovery: Yes No N/A

The potential for Cost Recovery is through legal action against the P2000 Contractor.

ALTERNATIVES CONSIDERED

The MTA Board may reject this change, but could cause a delay in the project schedule and result in the Contractor seeking other contractual or legal remedies. Staff does not recommend this alternative.

SMALL BUSINESS PARTICIPATION

This Contract has a 5% Disadvantage Business Enterprise (DBE) participation goal. The Contract was awarded December 23, 1991 to Union Switch & Signal. Current DBE attainment¹ based on the relevant contract amount² is 8.97%. Current DBE participation³ based on the total actual amount paid-to-date to prime and total actual amount paid-to-date to DBE is 9.12%. The DBE scope of work was completed in July 1995. The listed DBE Subcontractor's performed on the contract as listed.

Original Award Amount	\$57,785,000
Relevant Contract Value²	\$59,506,932
Total Actual Amount Paid to Date to Prime	\$58,539,184

Subcontractor	Commitment	Current Attainment₁	Current Participation₃	Current Status
L & B Electric	5.00%	8.97%	9.12%	Completed
Total	5.00%	8.97%	9.12%	Exceeded the Goal

¹Current Attainment = Total Actual Amount Paid-to-Date to Subs ÷ Total Relevant Contract Amount

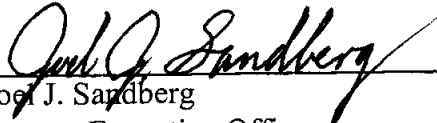
²Relevant Contract Amount = Original Contract Value + Contract Cost Modifications affecting DBE or SBE Scope of Work

³Current Participation = Total Actual Amount Paid-to-Date to Subs ÷ Total Actual Amount Paid-to-Date to Prime

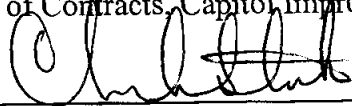
ATTACHMENT

1. Contract Value Status Summary

Prepared by: Valerie Dean, Contract Administrator
Suzanne Schmutzler, Manager of Contracts, Capitol Improvement



Joel J. Sandberg
Deputy Executive Officer
Engineering



Charles W. Stark
Executive Officer, Construction



Colonus Mitchell
Executive Officer, Procurement

ATTACHMENT 1
INDIVIDUAL CONTRACT VALUE STATUS SUMMARY
R23 Metro Green Line
CHANGE ORDER H1100-C0-53.00

CONTRACTOR: UNION SWITCH & SIGNAL, INC. / AUTOMATIC TRAIN CONTROL SYSTEM
ACTION DESCRIPTION: EXTENSION OF MILESTONES (CO-52) AND PRODUCTIVITY LOSS DUE TO SHORTEN 8-HOUR WINDOW (CO-53)

CONTRACT WORK ORDER (CWO) VALUE STATUS FOR CWO: 0.00 **AUTOMATIC TRAIN CONTROL SYSTEM**

1.	AWARD AMOUNT: [1]	\$57,785,000.00	<i>(Includes \$0.00 in previously approved Planned Scope Amendments)</i>
2.	PREVIOUSLY EXECUTED CHANGES:	\$2,440,734.66	
3.	CURRENT VALUE: (1+2)	\$60,225,734.66	
4.	AUTHORIZED WACN/LNTP'S (NTE):	\$3,500.00	
5.	OBLIGATED VALUE: (3+4)	\$60,229,234.66	
6.	VALUE OF THIS ACTION:	\$0.00	
7.	NEW VALUE (IF APPROVED): (5+6)	\$60,229,234.66	

[1] - Award Amount includes initial award and Planned Scope Amendments
[2] - PBCR = Project Budget Change Request
ATTACHMENT 1: Allocated Contract Data
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c:\windows\temp\RP200040.RRW

ATTACHMENT 1 CONTRACT VALUE STATUS SUMMARY

R23 Metro Green Line
CHANGE ORDER H1100-C0-53.00

Only shows cost allocated to R23

CONTRACTOR: UNION SWITCH & SIGNAL, INC. / AUTOMATIC TRAIN CONTROL SYSTEM
ACTION DESCRIPTION: EXTENSION OF MILESTONES (CO-52) AND PRODUCTIVITY LOSS DUE TO SHORTEN 8-HOUR WINDOW (CO-53)

CUMULATIVE CONTRACT WORK ORDER VALUE STATUS

1.	CUMULATIVE AWARD AMOUNT:[1]	\$57,785,000.00	(Includes \$0.00 in Planned Scope Amendments)
2.	PREVIOUSLY EXECUTED CHANGES:	\$2,440,734.66	
3.	CURRENT VALUE: (1+2)	\$60,225,734.66	
4.	AUTHORIZED WACN/LNTP'S (NTE):	\$3,500.00	
5.	OBLIGATED VALUE: (3+4)	\$60,229,234.66	
6.	VALUE OF THIS ACTION:	\$0.00	
7.	NEW VALUE (IF APPROVED): (5+6)	\$60,229,234.66	

Contract Work Order Value Status Reviewed by MTA Procurement:

CUMULATIVE AUTHORIZATION FOR EXPENDITURE STATUS

AFE INCREASE REQUIRED/REQUESTED:

8.	MTA APPROVED AFE:	\$62,407,800.00	
9.	NEW VALUE: (Line 7)	\$60,229,234.66	
10.	REMAINING AFE: (8-9)	\$2,178,565.34	\$0.00 For this action
11.	OTHER PENDING CHANGES (merited)	\$17,872.00	
12.	REMAINING AFE VALUE (w/Changes: 10-11)	\$2,160,693.34	\$0.00 For all merited changes (projected cost)
13.	ALLOWANCE FOR OTHER POTENTIAL CHANGES:	\$0.00	
14.	REMAINING AFE VALUE (w/Allowance: 12-13)	\$2,160,693.34	\$0.00 For all merited and undefined changes

CUMULATIVE BUDGET STATUS

BUDGET VARIANCE (Initial to Current)

15.	INITIAL BUDGET: (PBCR # 0 ,)	\$32,702,000.00	[2]	
16.	CURRENT BUDGET:	\$64,714,000.00		
17.	NEW VALUE (IF APPROVED): (Line 7)	\$60,229,234.66		\$32,012,000.00 Initial to Current Budget
18.	REMAINING BUDGET: (16-17)	\$4,484,765.34		
19.	OTHER PENDING CHANGES (merited) (Line 11)	\$17,872.00		
20.	REMAINING BUDGET w/Changes (18-19)	\$4,466,893.34		

Contract Budget Status Reviewed by MTA Program Control:

DATE:

[1] - Award Amount includes initial award and Planned Scope Amendments

[2] - PBCR = Project Budget Change Request

ATTACHMENT 1: Allocated Contract Data

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