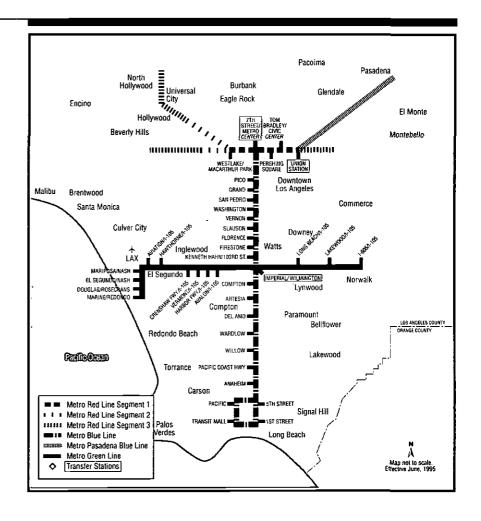
# MTA METRO CONSTRUCTION





# RAIL PROGRAM STATUS SUMMARY

THE LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
METRO CONSTRUCTION DIVISION

# **RAIL PROGRAM SUMMARY**

Cost Status

Current Budget \$841,000,000

• The Current Budget remained unchanged.

Schedule Status

Current Plan May 2001 Design Progress Construction Progress

Plan 97.2% 5.2% Actual 79.6% 4.9%

 Engineering activity will resume following the disposition of CCR issues and approval of Value Engineering and Cost Containment recommendations.

Safety Status Project Rate National Average
Lost Time Rate 0.0 4.9
Lost Work Days 0.0 148.1

• The project has completed 412,632 labor hours with no Lost Time Injuries.

### Quality Assurance

- MTA Quality Assurance Audits of C6430 and C6435 will be conducted in February.
- MTA Quality Assurance Audit of C6435 piling operations will be completed in February.

### **METRO RED LINE SEGMENT 2**

Cost Status

Current Budget \$1,517,657,000

The Current Budget remained unchanged.

Schedule Status Design Progress Construction Progress

Wilshire Corridor

Current Plan July 1996 Plan 99.5% 73.5%

Actual 99.6% 69.0%

Vermont/Hollywood Corridor • Wilshire Corridor is currently ahead of schedule.

Current Plan Dec 1998 • Vermont Corridor is behind schedule due to differing

site conditions.

Safety Status Project Rate National Average Lost Time Rate 2.9 4.9 Lost Work Days 75.4 148.1

The project has completed 150,692 labor hours with no Lost Time Injuries.

#### Quality Assurance

- MTA Quality Assurance Audit of B241 Resident Engineer was completed.
- Audit of integration testing is in process and scheduled for completion in February.

### METRO RED LINE SEGMENT 3 NORTH HOLLYWOOD EXTENSION

Cost Status

Current Budget

\$1,313,848,000

• The Current Budget remained unchanged.

Schedule Status

Design Progress

Construction Progress

Current Plan August 2000

Plan 95.0% 33.5%

Actual

89.3%

17.6%

The project is behind schedule due to additional slippage on C0331 grouting.

Safety Status

Project Rate

National Average

Lost Time Rate Lost Work Days 0.4 21.3

4.9 148.1

• The project has completed 110,000 labor hours with no Lost Time Injuries.

### Quality Assurance

Approval of JMA Quality Program is anticipated for February.

Audits of Contractors C0331, C0301 and C0351 were completed and audit reports issued.

· Audits of C0301 and C0351 Resident Engineers are scheduled for completion in February.

### METRO RED LINE SEGMENT 3 MID-CITY EXTENSION

Cost Status

Current Budget

\$490,663,000

• The Current Budget value is contingent on the preferred alternative selected.

Schedule Status

Design Progress

Construction Progress 0%

Current Plan TBD

Plan Actual 0% 0%

0%

Safety Status

Project Rate

National Average

Lost Time Rate

N/A

4.9

Lost Work Days

N/A

148.1

· No Construction Safety activity for this period.

### Quality Assurance

No Quality Assurance activity for this period.

### METRO RED SEGMENT 3 EAST SIDE EXTENSION

Cost Status

Current Budget

\$979,601,000

The Current Budget remained unchanged.

Schedule Status

Design Progress

Construction Progress

Current Plan November 2002

14.8% 8.5%

0.0% 0.0%

Design Progress is behind the Current Plan due to project delivery issues.

Plan

Actual

Safety Status

Project Rate

National Average

Lost Time Rate Lost Work Days

N/A N/A

4.9 148.1

No Construction Safety activity for this period.

### Quality Assurance

Completion of revised Design Quality Manual for EMC is scheduled for February.

Additional controls for Section Designers have been issued to proposed section designers.

All new EMC design quality procedures were accepted by the MTA.

### VEHICLE ACQUISITION PROJECT

Cost Status

Current Budget

\$257,597,000

The Current Budget remained unchanged.

Schedule Status

Design Progress

**Fabrication Progress** 

Schedule Car Delivery

1st Car

May 1997

85%

25%

52nd Car

May 1999

 The schedule reflects a total of eight months delay in 1st car deliveries due to design and manufacturing problems.

#### Quality Assurance

- First Article Inspections for the WABCO braking equipment and AEG Propulsion equipment were conducted.
- Power Truck is ready for fatigue testing when procedures are updated to reflect agreements.
- Siemens completed 30 of 36 lower level manufacturing and quality procedures.
- Final Quality Assurance Manuals from Siemens subcontractors are pending.

# METROPOLITAN TRANSPORTATION AUTHORITY PROJECT COST REPORT - TOTAL RAIL PROGRAM SUMMARY BY COST ELEMENT (IN THOUSANDS)

STATUS DATE: 1/26/96

PROJECT: TOTAL RAIL PROGRAM

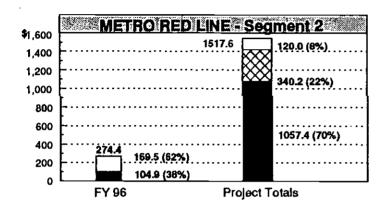
Page 4

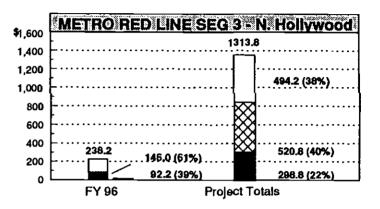
ELEMENT	BUDGET		COMMITMENTS		INCURRED COST		EXPENDITURES		CURRENT	VARIANCE	
DESCRIPTION	ORIGINAL	CURRENT	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	FORECAST	(9-2)	
	(1)	(2)	(3)	(4)	(5)	(6)	<u></u>	(8)	(9)	<u>(10)</u>	
T CONSTRUCTION	5,153,507	5,292,003	1,596	3,595,598	20,273	2,638,485	21,332	2,563,874	4,988,337	30,716	
S PROFESSIONAL SERVICES	1,685,529	2,011,245	260	1,507,741	11,326	1,319,282	11,372	1,317,987	2,008,980	95,824	
R REAL ESTATE	480,002	548,923	925	392,728	939	393,866	949	393,873	504,876	9,256	
F UTILITY/AGENCY FORCE ACCOUNTS	146,279	168,650	(4)	129,402	(369)	105,456	(368)	104,936	155,998	(7,576	
D SPECIAL PROGRAMS	11,045	20,866	0	5,650	10	4,577	10	4,664	15,867	(4,996	
C CONTINGENCY	560,120	366,105	0	٥	0	o	. 0	o	323,202	(43,096	
A PROJECT REVENUE	(18, 115)	(36,565)	(3,247)	(5,999)	' o	(11,656)	o	(14,522)	(33,524)	3,061	
PROJECT GRAND TOTAL	8,018,367	8,371,207	(470)	5,625,120	32,179	4,450,010	33,295	4,370,812	7,963,738	83,195	

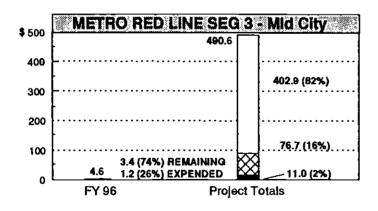
NEW REQUIREMENTS	BUD	GET	COMMIT	MENTS	INCURR	ED COST_	EXPEND	ITURES	CURRENT	VARIANCE
DESCRIPTION	ORIGINAL	CURRENT	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	FORECAST	(9-2)
·	(!)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
T CONSTRUCTION	٥	50,876	47	48,053	(24)	11,609	432	20,121	62,999	12,122
S PROFESSIONAL SERVICES	o	19,634	G	18,575	829	11,297	844	11,590	20,729	1,093
R REAL ESTATE	o	o	o	1	o-	37	o	37	0	o
FUTILITY/AGENCY FORCE ACCOUNTS	0	a	0	o.	o	· o	a	o :	0	o
D SPECIAL PROGRAMS	o	20	o	50	٥	20	0	20	20	a
C CONTINGENCY	o	3,721	o	o	o	o	o	0	55	(2,371)
A PROJECT REVENUE	0	o	0	O.	ا ۵	o	0	o l	1,293	o
NEW REQ. SUBTOTAL	0	74,251	47	66,649	805	22,963	1,276	31,768	85,098	10,844
PROJECT GRAND TOTAL	8,018,367	8,445,458	(423)	5,691,769	32,984	4,472,973	34,571	4,402,580	8,048,834	94,039

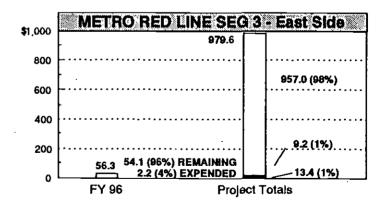
This report includes total project costs for the Metro Biue Line of \$877,271.

# BUDGET STATUS - January 26, 1996 (in \$ Millions)







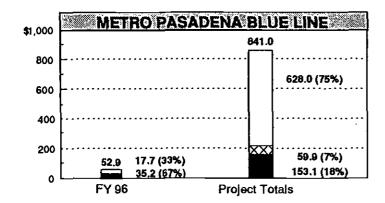


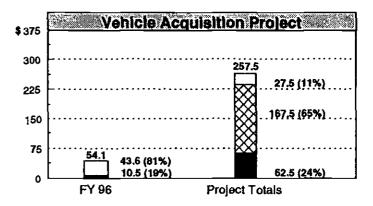
Actual Spent



\_\_\_\_ Remaining Budget

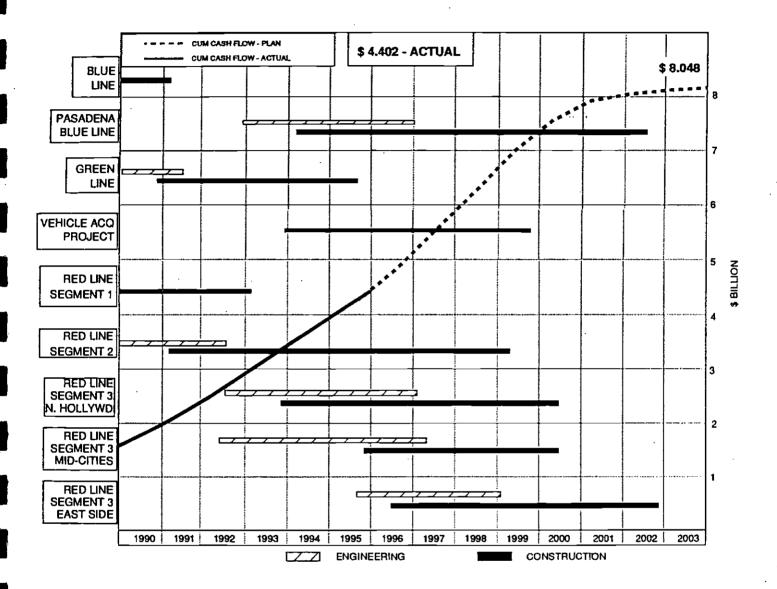
# BUDGET STATUS - January 26, 1996 (in \$ Millions)





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Actual Spent Encumbered Remaining Budget



#### METROPOLITAN TRANSPORTATION AUTHORITY **FUNDING SOURCES**

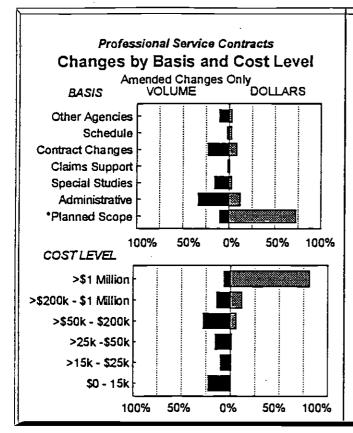
(IN MILLIONS) JANUARY 1996 METRO BLUE PASADENA METRO GREEN METRO RED METRO RED METRO RED LINEMETRO RED LINEMETRO RED LINEVEHICLE ACQUIS PROJECT LINE" LINE SEGMENT 1\*\* SEGMENT 2 SEG 3 - NH SEG 3 - MC SEG 3 · ES PROGRAM \$ X \$ \$ \* \* \$ \* \$ \$ X 605.3 667.0 43 FTA-SECTION 3 42 681.0 52 242.5 49 492.9 51 2688.7 FTA - OTHER 0.0 52.1 ISTEA - FED SURFACE TRANSIT 3 69.1 5 40.0 25.0 65.8 32 252.0 PROGRAM 2.5 FED-ISTEA STP/CMAQ 39.9 3 40.4 86.1 9 6.1 175.0 (REGIONAL) 90.6 FTA-SECTION 9 90.6 387.8 40 106.4 210.3 133.0 STATE 15 45.9 3 15.0 26.3 924.7 11 STATE TSM MATCH 3.2 7.2 2 11.1 a 21.5 SB 1995 TRUST FUND 75.0 75.0 501.9 877.2 100 202.6 205.1 29 179.5 31 1966.3 PROPOSITION A 12 23 PROP A/C (TRANSIT ENHANCEMENT) 62.7 62.7 400.3 213.5 60 56 195.5 151,6 31 349.1 103.1 PROPOSITION C 15 36 51 1413.1 17 PROP C (AMERICAN DISABILITIES 6.0 6.0 12.0 ACT 157.5 10 190.7 9.0 0.3 CITY OF LOS ANGELES 34.0 391.5 58.0 BENEFIT ASSESSMENT 130.3 13.5 201.8 COST OVERRUN ACCOUNT 200.1 200.1 100 717.8 100 1450.1 100 1640.7 104 1313.8 100 490.7 100 979.5 TOTAL 100 803.9 100 201.3 100 8475.0 100

Note: Data reflects Current Budget

Page

<sup>.</sup> CDNSISTS OF LIGHT RAIL LINE (\$847) AND MC-5 WORK (\$30).

<sup>..</sup> LRT PORTION INCLUDED IN BLUE LINE FORECAST.



### CHANGE BASIS ANALYSIS

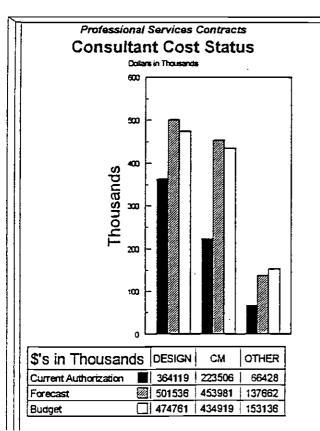
Administrative changes account for approximately 34% or 245 of the 723 Consultant Change Requests overall. This equals 12% of the overall change cost of approved and amended changes.

### CHANGE COST LEVEL ANALYSIS

As shown on the Cost Level Analysis chart opposite, the MTA Board approves 93% of all change costs associated with the Rail Project or \$358M of a total change cost of \$386M. This equal 21% of the total change volume or 158 of 723 total changes.

Note: Basis and Cost charts include approved and amended changes only.

\*Planned Scope Additions (PSA) = Services which were anticipated or identified at the inception of the CWO but not included in the initial award. Staff will incrementally approve these known scope requirements and corresponding funds as a method to closely manage the consultant's technical and cost performance.



# PROFESSIONAL SERVICES COST ANALYSIS

Report revised to show authorized, budgeted, and forecast consultant costs rather than changes, amendments, and planned scope additions.

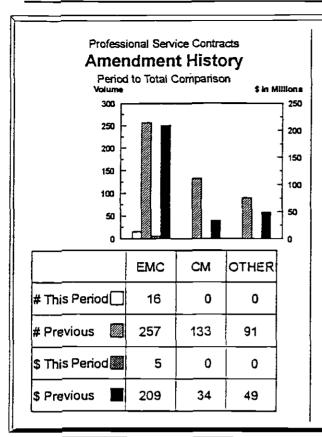
Now includes all professional service contracts. Groups represent contract types not individual contracts (i.e. "design" includes all line item 11 contracts not just EMC.)

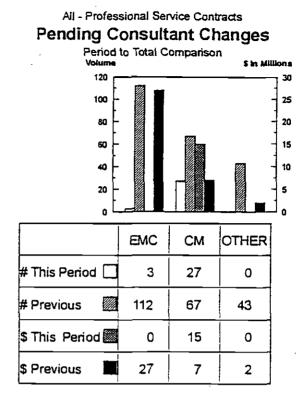
Forecasts for all professional services continues to exceed budget amounts.

The Pasadena Design forecast was increased by \$11.9 million and the East Side Design forecast was increased due to scope additions by the MTA and delays in the award of the Section Designer contracts.

The East Side CM and Other forecast exceeds the budget due to delays in start of Final Design and associated evaluation.

CHNGSAMP/01/96





### CONSULTANT CHANGE REQUEST ANALYSIS

Thirty Advanced Work Authorization's (AWA) were assigned this period with a not-to-exceed obligation of \$2.8m.

Thirty=new CCRs assigned this period of which 15 are estimated at over \$200,000: CCR numbers as follows:

R81-03369-289.01; R81-03369-325.00; R81-03369-327.00; R81-03369-328.00; R81-03369-184.00; R818-03369-247.00; R81-03369-248.00; R81-03369-249.00; R81-03369-322.00; R81-03369-326.00; R81-03369-345.00; R81-03369-345.00; R81-03369-349.00; R81-03369-351.00 and R81-03369-353.00.

Amendment 6 to the EMC Contract CWO #021 approved on 12/21/95 for \$1.5m. Amendment 2 to the EMC Contract CWO #025 approved on 12/21/95 for \$282k.

MTA rejected/cancelled 7 CCR's this period with a cumulative Rough-Order-of-Magnitude value of \$897k.

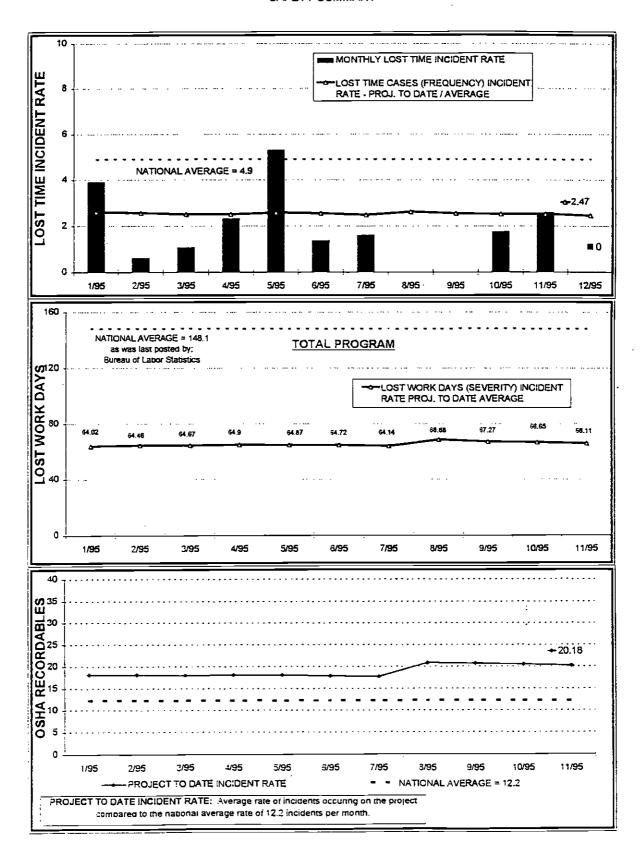
# Cost Performance Relative to Corporate Goals (IN THOUSANDS)

	METRO (	SLUE LINE			METRO G	REEN LINE	,	RED LINE		RED UNE		RED UNE		RED UNE			VEHICLE /	COUISMIC	TOT	AL.	CORP
				LINE				MENT 1		AENT 2	SEGMEN		SEGMEN		SEGMEN			JECT	PROG		COVI
											DOLLARS		DOLLARS	PERCENT				PERCENT	DOLLARS	<u>Percent</u>	1
CONSTRUCTION	657,487	74.95%	554,836	58.34%	477,238	66.49%	812,270	56.02%	1,051,839	69.26%	810,345	61.22%	ا ا	٥	666,194	66.02%	180,644	89,72%	5,210,851	64.74%	
REAL ESTATE	55,592	6.34%	77,721	8.17%	26,047	3.63%	140,000	9.66%	88,982	5.86%	89,076	6.73%	٥	٥	27,459	2.72%	٥	0.00%	504,877	6.27%	
PROFESSIONAL SERVICES;								:													
ENGINEERING/DES	69,587	7.93%	105,651	11.11%	63,296	11.60%	221,659	15.29%	155,861	10.26%	90,711	5.85%	٥	٥	98,111	9.72%	1,700	0,84%	826,576	10.27%	
CONSTR MGMT,	91,642	10.45%	77,171	8.11%	78,213	10.90%	116,429	8.03%	140,907	9.26%	115,919	6.76%	٥	٥	84,983	8.42%	٥	0,00%	705,264	8,76%	
STAFF	17,655	2.01%	49,750	5.23%	24,179	3.37%	95,558	8.59%	53,224	3,50%	59,590	4.50%	0	0	37,585	3.72%	3,840	1.91%	341,361	4.24%	4%
OTHER	14,222	1.62%	20,448	2.15%	17,337	2.42%	32,671	2.25%	20,664	1.36%	36,459	2.75%	0	٥	17,359	1.72%	9,237	4.59%	168,397	2.09%	UMFC:
SUBTOTAL ,	193,106	22.01%	253,020	26.60%	203,025	28.28%	466,317	32.16%	370,656	24.41%	302,679	22.86%	0	0	238,018	23.59%	14,777	7.34%	2,041,598	25.37%	20%
CONTINGENCY	963	0.11%	66,671	7.01%	12.757	1.78%	31,432	2.17%	8,278	0.55%	121,668	9,19%	٥	0	77,334	7.66%	5,930	2,95%	325,033	4.04%	
PROJECT REVENUE	(29,877)	-3.41%	(1,211)	-0.13%	(1,263)	-0.18%	0	0.00%	(1,173)	-0.08%	0	0.00%	0	0	0.	0.00%	٥	0.00%	(33,524)	-0.42%	
GRAND TOTAL	877 <i>,2</i> 71	100.00%	951,037	100.00%	717,802	100,00%	1,450,019	100.00%	1,518,582	100.00%	1,323,768	100,00%	0	0	1,009,005	100.00%	201,351	100.00%	8,048,835	100.00%	

METRO RED LINE SEGMENT 3 MID CITY FORECAST NOT INCLUDED. NOTE: Data reflects Current Forecast.

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TOTAL METRO SAFETY SUMMARY Prepared by: MASS TRANSIT GROUP

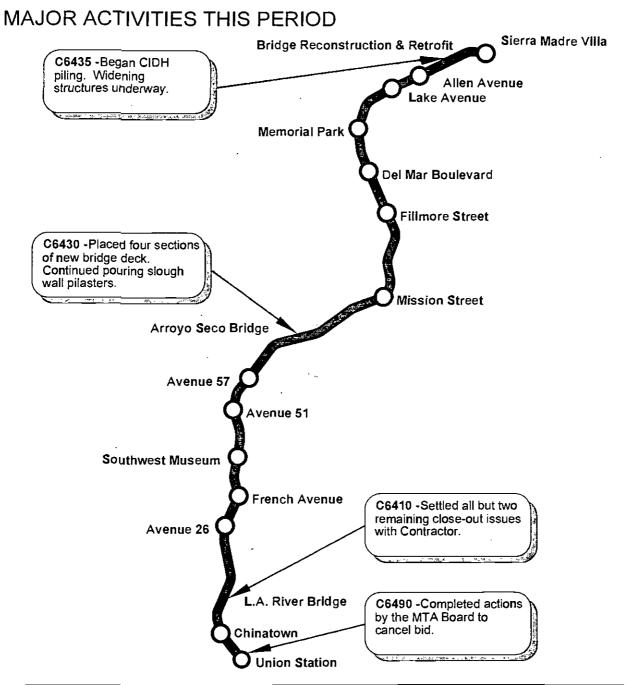


**EXECUTIVE SUMMARY** 

# **Summary Status Report**

Period Ending - January 26, 1996





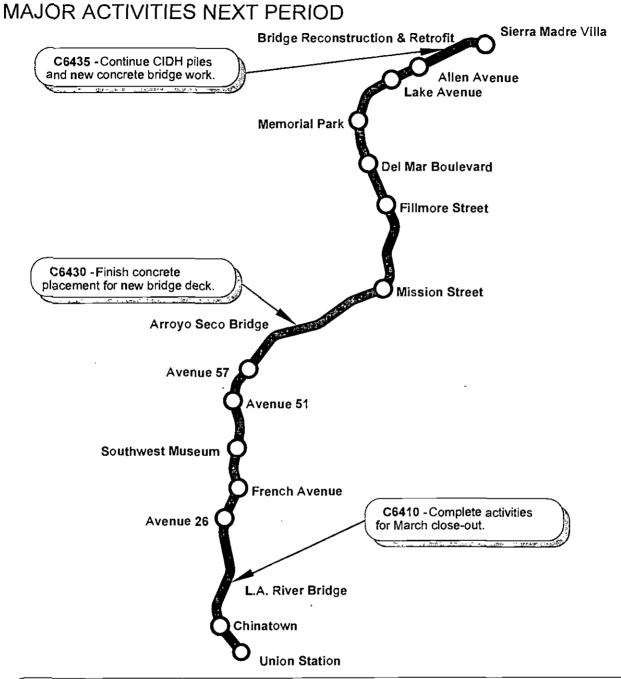
# SYSTEMWIDE ACTIVITIES

- P2100 MTA agreed to negotiate Contractor's cost and schedule proposal for a time extension.
- Submit Value Engineering and Cost Containment recommendations to the MTA Board for approval.
- Worked with Operations staff to resolve R.O.W. maintenance issues.

Summary Status Report

Period Ending - January 26, 1996





### SYSTEMWIDE ACTIVITIES

- P2100 Negotiate time extension.
- Incorporate MTA Board approved work scope, schedule and budget into baseline cost / schedule information.

**Summary Status Report** 





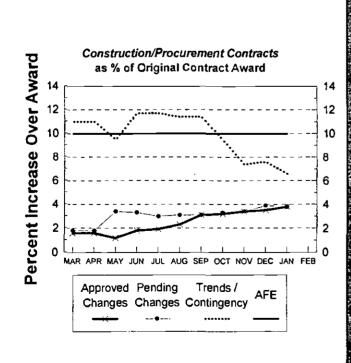
# **BUDGET**

·	Amount (\$ in mil)	Change from Last Month (\$ in mil)
Original Budget	841	None
Approved Budget	841	None
Current Forecast	951	None
Expenditures	153	+6

# **BUDGET ANALYSIS**

- The Current Forecast has been revised from \$997.7M to \$951.0M per the Value Engineering and Containment recommendations approved to date.
- Additional Cost Containment recommendations will be brought forward to the MTA Board in February 1996.
- Upon MTA Board approval, budget, scope and schedule will be adopted.

# **CONTRACT CHANGES**



# **CONTRACT CHANGE ANALYSIS**

The Trends/Contingency line, which represents the total forecast, shows forecast the costs for awarded construction/procurement contracts are projected at less than the AFE values. In general, the forecast has been trending downward in recent months as bid quantities have been reconciled and allocated contingencies reduced. However, potential claims relating to extended overhead issues at C6430 and the lack of scope definition at C6435 may have a possible adverse impact on this trend.

# Summary Status Report





# **SCHEDULE**

Chang	e	from
Last	M	ionth

Current ROD Ju	une 2002	None
Design Progress	79.6%	None
Constr. Progress	4.9%	+0.2
Critical Path +3	375 days	-126

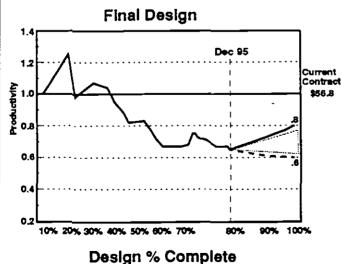
Calendar days.

**EMC** 

# SCHEDULE ANALYSIS

- Design is on hold pending resolution of EMC issues & MTA approval of new Containment scope.
- The viability of the June 2002 ROD is at risk unless a decision regarding Cost Containment issues is made by March 1996.
- Project critical path: C6460, C6550, H0060, H0090, Integrated Systems, Pre-Revenue Operations & ROD.
- Contracts C6430, C6435 & P2100 are behind schedule; there is no impact to the Project Critical Path 2002 ROD.
- Construction delays are due in part to the Operating Engineer's strike (C6430), the deferral of some bridge work (C6435), & delay of the delivery schedule (P2100).
- Finalization of change orders will mitigate the C6430 and P2100 variances; a decision on the deferred bridge work must be made for C6435.

# COST PERFORMANCE Final Design



# **EMC** COST PERFORMANCE ANALYSIS

- The forecast continues to exceed the budget, resulting in a Cost Performance Index (CPI) of less than 100%.
- Design has been "on hold" since June 1995 pending resolution of CCR issues.
- Cost Containment work scope changes will result in some re-design effort and additional delay to the design completion. CCRs will be prepared to reflect these re-design costs.
- The forecast increased to \$76.9M last period. This includes re-design for cost containment scope changes approved to date; additional recommendations being considered by the Board next period may result in more re-design costs.
- EMC productivity is in the probable range of 60%-80%; however, the CPI will be effected when pending CCR's are approved.

# Summary Status Report





### SAFETY

Change from Last Month (\$ in mil)

Recordable Injury Rate

National Average 12.2

Project Rate (Cum.) 3.9 -0.2

Lost Time Rate (Frequency)

National Average 4.9

Project Rate (Cum.) 0.0 None

Lost Work Days (Severity)

National Average 148.1

Project Rate (Cum.) 0.0 None

## SAFETY ANALYSIS

- Project continues with zero time case rate to date.
- Project has recorded eight (8) OSHA-200 cases.
- Project continues Safety Meetings and Safety Training programs.
- Site Safety Engineers are receiving field support from the Construction Manager.

## **COMMUNITY ISSUES**

- Cost Containment issues relating to the grade separation at Marmion Way and the physical appearance of stations. (Councilperson Mike Hernandez, Congressman Becerra, Assembly member Antonio Villaraigosa, Assembly member Louis Caldera)
- MTA's Public Affairs facilitated cleaning-up right-of-way and posting signs for enforcement of "No Dumping" laws.
- Worked closely with Highland Park Heritage to inform them of property changes.

# Summary Status Report Period Ending - January 26, 1996



# **QA/TQM ISSUES**

- MTA Quality Assurance (QA) Audits of C6430 and C6435 will be conducted in February 1996.
- MTC QA Audit of C6435 piling operations will be completed in February 1996.

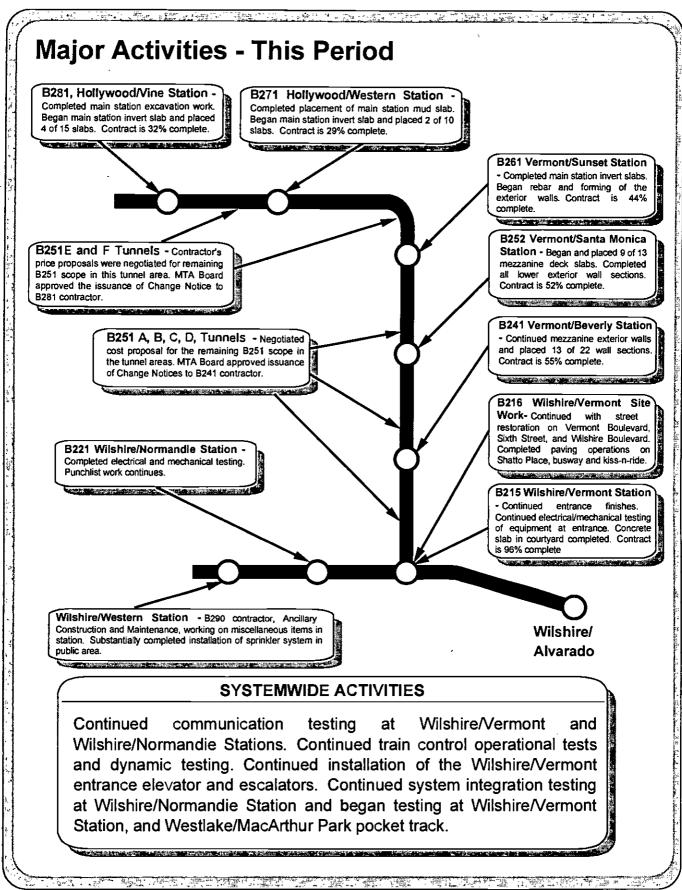
# **CCR BACKLOG STATUS**

- 17 Consultant Change Requests (CCRs) are pending approval of the Change Control Review Board (CCRB) at an estimated value of \$5,176,969.
- 14 CCRs have been approved by the CCRB for an estimated value of \$2,725,626.

# **METRO RED LINE SEGMENT 2**

**EXECUTIVE SUMMARY** 



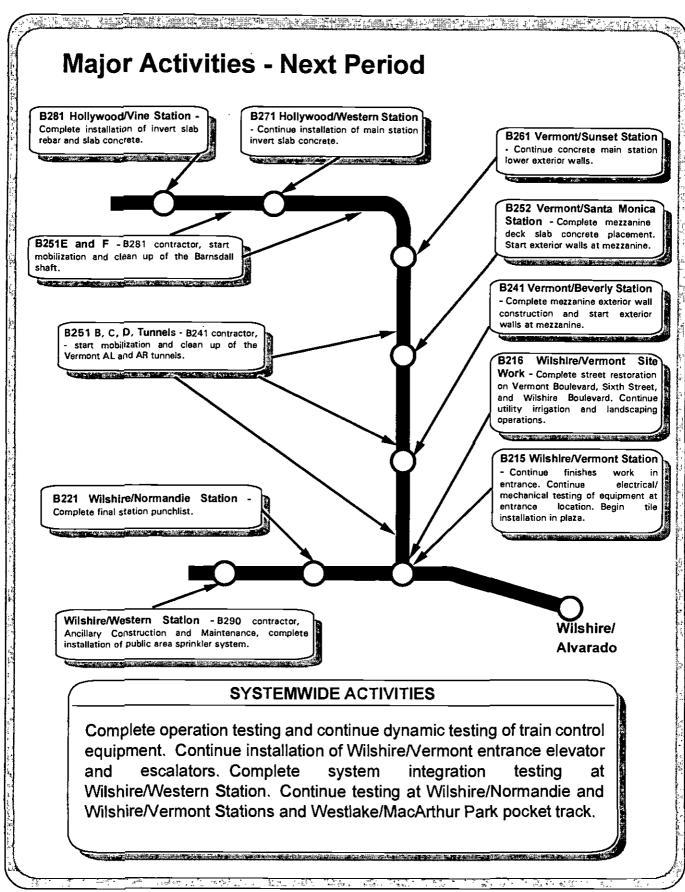


MAAC100.PRE ES-1

# **METRO RED LINE Segment 2**

Summary Status Report
Period ending - January 26, 1996





MAAC150.PRE ES-2

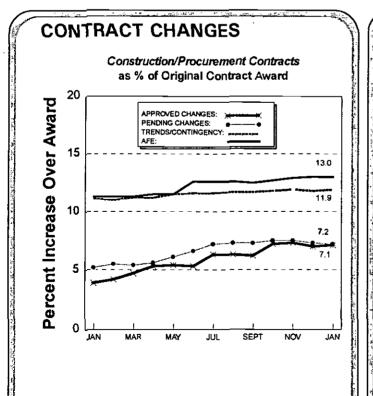


Amount	Change from Last Month
(in \$ mil)	(in \$ mil)
1,446	None
1,518	None
1,519	None
1,057	+15.8
	(in \$ mil) 1,446 1,518 1,519

# **BUDGET ANALYSIS**

The approved budget growth is due to the addition of Transit Enhancement and ADA. The current forecast remained the same this month.

The expenditures increased \$15.8 million in December, as a result of \$11.4 million in Construction and \$4.8 million in Professional Services. Expenditures were partially offset by (\$0.4) million in Utility/Agency Force Accounts. The \$1,057.5 million expenditures to date are 97.4% of the planned fiscal year expenditures.



# **CONTRACT CHANGE ANALYSIS**

The percentage calculations for the contract changes have been adjusted for the last 12 months to reflect the percent increase over award method. The approved change value had a 0.1% increase in January, due to various executed Change Notices (CNs) and Work Authorization Change Notices (WACNs) for work performed on various construction contracts. The pending changes decreased 0.1%, resulting from approved changes of various CNs and WACNs<sup>1</sup>. The Trends/ Contingency had a 0.1% increase, primarily due to the decrease in the total logged value for construction changes.

<sup>1</sup>Construction contracts B241 and B281 do not include B251 rebid RFQ package costs.



### **SCHEDULE**

Wilshire Corridor

		Last Month
Current ROD	July 1996	None
Design Progress	100%	None
Critical Path Float	+ 18 Days	-17 days

Change from

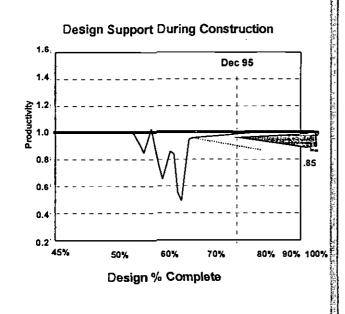
## <u>Vermont/Hollywood Corridor</u> Change from Last Month

Current ROD	Dec. 1998	None
Design Progress	99%	None
Critical Path Float	-56 Days	0
Const. Progress	69%	1.5%

### SCHEDULE ANALYSIS

- Currently 3 weeks ahead of current ROD schedule for Wilshire Corridor. The critical path to ROD is through completion of installation of fire control panel and interface testing with transit automatic controls (TRACS), completion of systems integration testing, and pre-revenue operations.
- The positive float for Wilshire Corridor was reduced by 17 days due to delays in systems integration testing affected by fire control panels installation, contractor local field acceptance testing delays at Wilshire/Normandie Station, and added 6-day integration test finalization and certification activity prior to start of pre-revenue operations.
- Schedule mitigation for Vermont/ Hollywood Corridor is proceeding. Vermont/Hollywood Corridor critical path was changed and is now proceeding through the B251E work package trackwork access milestone, trackwork installation, train control installation, system integration testing, and then pre-revenue operations.

# EMC COST PERFORMANCE ANALYSIS



# **EMC**

### COST PERFORMANCE ANALYSIS

- The chart represents the Cost Performance for Design Support During Construction (DSDC). It compares the actuals versus earned value performance design support during construction effort.
- The cumulative to date CPI through December 1995 is 0.94. The cumulative and monthly performance rate is within the acceptable range of 85% to 90%.
- Substantially more work, in terms of numbers of RFIs, Submittals, and Change Notices processed, have been required; productivity, in terms of hours per item processed, remains favorable. The periods CPI shown on the chart are reflected using budget values only. The request for additional budget to cover additional work is being prepared. Once approved, this chart will accurately reflect the work being done.



### SAFETY

Change from Last Month

Recordable Injury Rate

National Average 12.2
Project Rate (Cum.) 21.4 -0.5

Lost Time Rate (Frequency)

National Average 4.9

Project Rate (Cum.) 2.9 None

Lost Work Days (Severity)

National Average 148.1

Project Rate (Cum.) 75.4 -0.9

# **SAFETY ANALYSIS**

- Staff currently working with operations for training of contractor personnel for red tags on the Wilshire alignment.
- Safety staff for Segment 2 is being relocated to field offices.
- Project continues to reduce project-to-date rates by exceptional performance on a month-to-month basis.
- Trends identified by 1995 year-end statistics are being addressed through new initiatives.

## COMMUNITY ISSUES

### WILSHIRE CORRIDOR

- Community Art Workshop is planned for February 1996 for Wilshire/Normandie (Supervisor Burke).
- Construction public affairs projects are being coordinated with Wilshire Chamber of Commerce.
- MTA's external affairs is implementing new procedures on pre-revenue tours for Segment 2 Wilshire Stations.

### VERMONT CORRIDOR

- New merchants association is under development (Virgil Rangers and Council District 13).
- Completion of Vermont construction fence at Sunset/Vermont.

### HOLLYWOOD AND VERMONT (BARNSDALL AREA)

- Outreach program developed for implementation of Contract B251 E and F.
- Construction fence developed at Hollywood/Western.



# QA/TQM ISSUES

- Audit of B241 Resident Engineer was completed. Audit report will be issued January 29, 1996.
- Audit of integration testing is in process and will be completed in February 1996.

# **CCR BACKLOG STATUS**

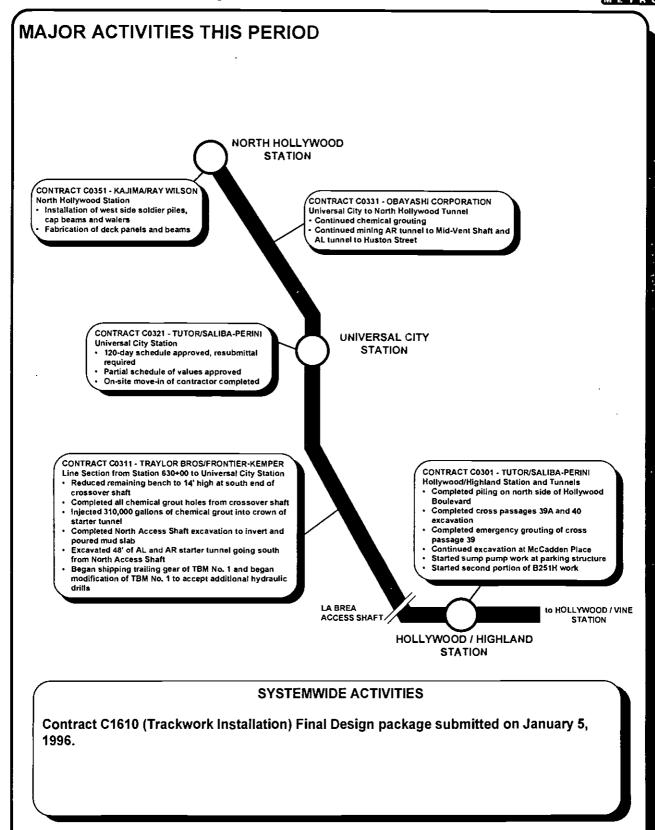
- 14 CCRs pending approval of the CCRB at an estimated value of \$7,434,422.00.
- 88 CCRs have been approved by the CCRB for an estimated value of \$18,408,401.00.

METRO RED LINE SEGMENT 3

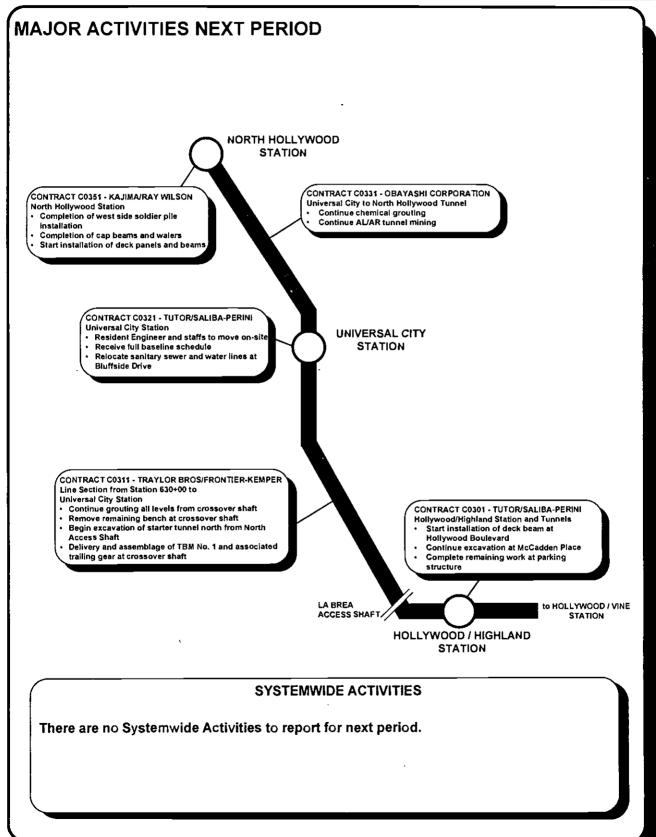
NORTH HOLLYWOOD EXTENSION

**EXECUTIVE SUMMARY** 







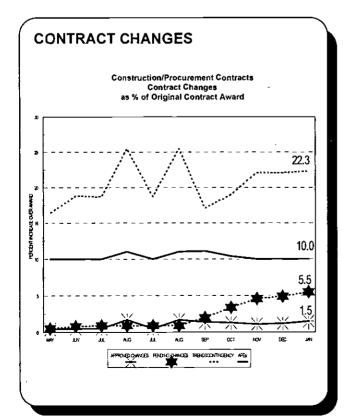




BUDGET		
	Amount (in \$ mil)	Change from Last Month (in \$ mil)
Original Budget	1310.8	None
Approved Budget	1313.8	None
Current Forecast	1323.7	None
Expenditures	298.8	10.8

#### BUDGET ANALYSIS

- There has been no change to the Original Budget since the inception of the Segment 3 - North Hollywood Project.
- There was no change to the Approved Budget for January 1996. However, PBCR #3 was processed in the 4th quarter of calendar year 1995 for Original Scope Work resulting in an increase to Construction, Professional Services, and Utility/Force Accounts elements. These Approved Budget increases were offset by a decrease to Contingency. Therefore, there was no increase to the Approved Budget total.
- There was no change to the Current Forecast for January 1996. However, there were major shifts in several elements of the forecast. The Construction element increased \$0.9 million this period due to a change in claims for the facilities and tunnels contracts. Also, the Real Estate element increased \$2.7 million this period due to the establishment of a trust fund for Runyon Canyon Park. These increases in the respective elements were offset by a reduction to the Project Contingency which results in no change to the Current Forecast for the period. (These changes are addressed in more detail under the Forecast Variance Analysis in Section II, Project Status).
- Expenditures increased \$10.8 million dollars for December 1995 for a total to date value of \$298.8 million. Approximately 22.7% of the available funds have been expended to date.



### CONTRACT CHANGE ANALYSIS

- Approved changes and pending changes, together, accounted for an approximate 7.0% increase over contract award value. As construction progresses, this low percentage may increase to 22.3% as indicated by the trends/contingency line.
- Pending changes percentage rose 0.4% and approved changes rose 0.3% over last period.
- Pending changes increased \$1,634,426 over last period mainly due to \$3,380,219 of logged changes on Contract C0311. Pending changes decreased on Contracts B281, C0301, C0331, and C0361 by a total of \$1,745,793 (\$1,666,168 on C0301).
- Approved changes increased \$1,471,582 over last period. Contract B281 accounted for \$11,000, B610 for \$8,007, C0301 for \$36,486, C0311 for \$1,348,890, C0331 for \$62,200, and C0351 added \$5,000.

Footnote: Data cutoff date for Change Analysis is the end of the month while the data cutoff date for Forecasting is mid-month. Discrepancies in numbers may result.

Change from

# METRO RED LINE - Segment 3 North Hollywood Summary Status Report Period Ending - January 26, 1996



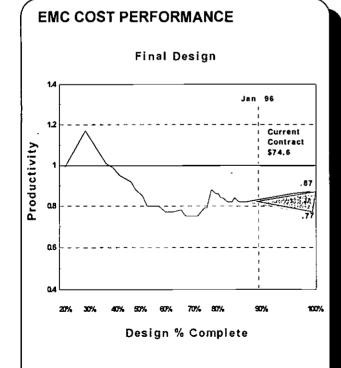
### **SCHEDULE**

		<u>Last Month</u>
Current ROD	August 2000	
Design Progress*	89.3%	+0.8%
Construct. Progress	17.6%	+1.1%
Critical Path Float	-92 Cal. Days	-9

\*Estimates at time of update

### SCHEDULE ANALYSIS

- Efforts continued to recover project schedule. The trackwork installation plan was reviewed and incorporated into the January schedule update. New trackwork plan calls for more continuous construction sequence and also reflects proposed increased scope to include work between Station 606+00 and west of Hollywood/ Vine Station.
- Project's delay changed from a previous -83 calendar days to -92 calendar days. The increase in negative float reflects the new installation sequence for C1610 and additional slippage on grouting efforts on C0311.
- The critical path runs through C0311. The secondary path of 75 calendar days runs through C0331.
- The restricted NTP and lengthy negotiations on C0301, CN 21.01 (B251H Package) may create an undesirable ripple effect to the Project Critical Path. The lack of progress in this area has created the necessity to evaluate other viable options.
- A proposed Systems Installation Design schedule is currently under review. C0301 schedule is also under review.



### **EMC COST PERFORMANCE ANALYSIS**

- Final Design is 89.3% complete, with all of the Major Facilities (Stations and Tunnels) at 100% complete. The Cost Performance Index is expected to remain essentially unchanged.
- The MTA is working with the EMC to reduce the overall cost forecast for the EMC by as much as 15% as the project moves fully into construction and requires only limited design services during construction

ES-4 EXE 10



### SAFETY Change from Last Month Recordable Injury Rate National Average 12.2 -0.3 Project Rate (Cum.) 13.1 Lost Time Rate (Frequency) 4.9 National Average Project Rate (Cum.) 0.4 None Lost Work Days (Severity) **National Average** 148.1 Project Rate (Cum). 21.3 +15.6

### SAFETY ANALYSIS

- A second lost time injury accounts for incident rate changes; rates are still below National Average.
- Additional Safety staff has been added to supplement the safety effort.
- Compliance for Safety is improving overall.
- Change Orders for Safety are being processed.
- Contractor/ MTA Safety working relationship is improving.

#### **COMMUNITY ISSUES**

### **GENERAL ISSUES**

. MTA's Public Affairs is creating a Field Information Office for the Hollywood Hills community.

### LA BREA VENT SHAFT

- Facilitating noise testing at the Versaille Towers and awaiting confirmation by Homeowner's Association to conduct testing.
- MTA's Public Affairs staff is working with MTA's Risk Management to create an outreach program for pre-construction survey.

#### HOLLYWOOD/HIGHLAND STATION

- MTA's Public Affairs staff is working with the Construction Manager to develop a mitigation plan for decking activities during the Los Angeles Marathon and Spring Break in March.
- MTA's Public Affairs is working with Construction to mitigate noise at the McCadden work site.
- MTA's Public Affairs have been assisted by JMA in the presentation of Bulletins addressing the environmental issues
  concerning the Santa Monica Mountains.



## QUALITY ASSURANCE / TOTAL QUALITY MANAGEMENT (QA / TQM) ISSUES

- Revised Quality Assurance requirements for Parsons-Dillingham Scope of Work has been completed.
- Completed Quality Program from JMA has been submitted. Approval is anticipated in February 1996.
- Audit of C0331, Contractor, was completed. Audit Report issued January 24, 1996.
- Audit of C0301 (Hollywood/Highland Station and Tunnels) Contractor, has been completed. Audit Report issued January 17, 1996.
- Audit of C0301, Resident Engineer, is in process and will be completed in February 1996.
- Audit of C0351, Resident Engineer, is scheduled to start February 5, 1996.
- Audit of C0351, Contractor, KDC Pipe and Steel supplier of structural steel was completed. Audit Report issued January 25, 1996.

# CONSULTANT CHANGE REQUEST (CCR) BACKLOG STATUS

- 10 CCRs pending approval of the Consultant Change Review Board (CCRB) at an estimated value of \$4,543,945.
- 40 CCRs have been approved by the CCRB for an estimated value of \$37,019,545.

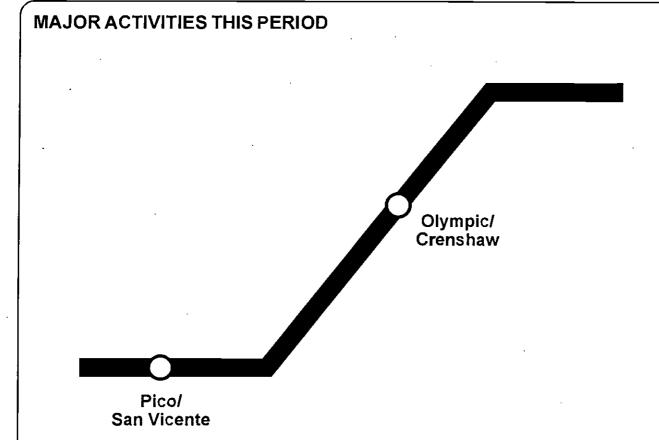
METRO RED LINE SEGMENT 3

MID CITY EXTENSION

**EXECUTIVE SUMMARY** 

## METRO RED LINE - Segment 3 / Mid-City Extension Summary Status Report Period Ending - January 26, 1996



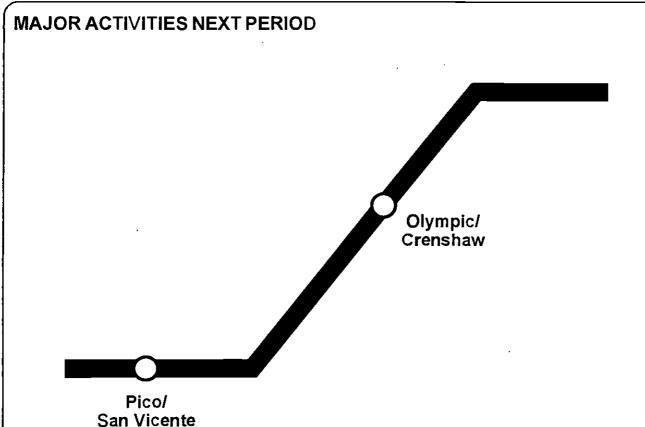


#### SYSTEMWIDE ACTIVITIES

- Enviro-Rail, MTA's environmental consultant, completed incorporation of MTA comments into the draft SEIS/SEIR.
- MTA provided additional comments to be added to the final draft.
- Enviro-Rail is incorporating final modifications to the final draft.

## METRO RED LINE - Segment 3 / Mid-City Extension Summary Status Report Period Ending - January 26, 1996





#### SYSTEMWIDE ACTIVITIES

- Enviro-Rail will complete incorporation of MTA comments into the final draft SEIS/SEIR.
- MTA will conduct a briefing of the draft SEIS/SEIR with the FTA, and submit the report for review.
- The FTA will begin review of the draft SEIS/SEIR.

## METRO RED LINE - Segment 3 / Mid-City Extension Summary Status Report Period Ending - January 26, 1996



#### BUDGET Change from **Amount** Last Month (In \$ mil) (In \$ mil) **Original Budget** 490.7 None **Approved Budget** 490.7 None **Current Forecast TBD** TBD **Expenditures** 11.0 0.5

#### **BUDGET ANALYSIS**

 Budget and Forecast values are subject to outcome of alignment alternative selected.

# SCHEDULE Change from Last Month None Design Progress 0% None Construction Progress 0% None

N/A

#### SCHEDULE ANALYSIS

- The draft SEIS/SEIR document in nearly complete and will go to the FTA for review in mid-February. Submittal to the MTA Board for approval is expected in June 1996.
- The current estimate for project completion from MTA Board alternative selection is eight years.

#### **CCR BACKLOG STATUS**

- 2 CCRs pending approval of the CCRB at an estimated value of \$88,900.
- 5 CCRs have been approved by the CCRB for an estimated value of \$887,253.

None

#### SAFETY

Critical Path Float

No activity for this period.

#### **COMMUNITY ISSUES**

• No activity for this period.

#### QA / TQM ISSUES

No activity for this period.

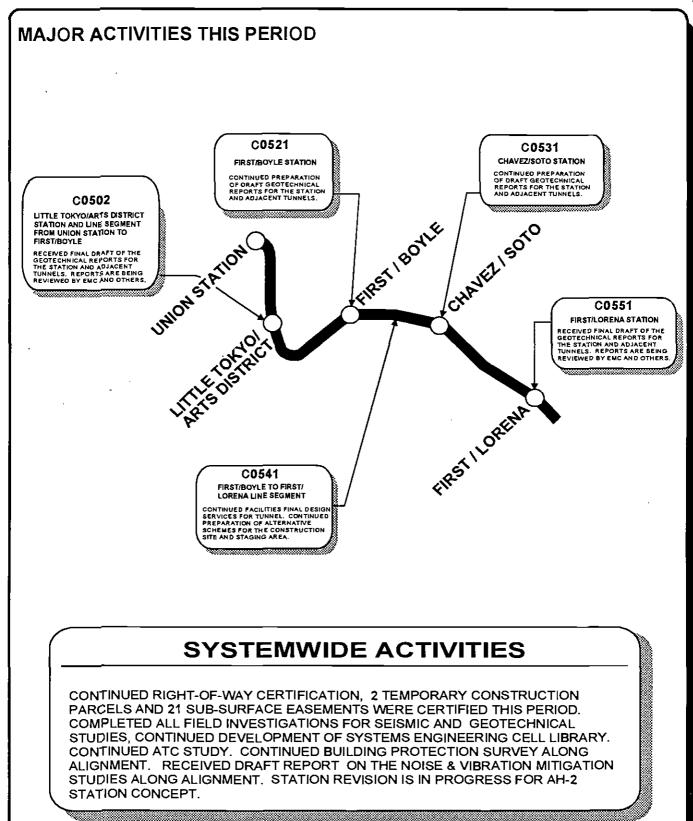
METRO RED LINE SEGMENT 3

EAST SIDE EXTENSION

**EXECUTIVE SUMMARY** 

## METRO RED LINE - Segment 3 East Side Extension Summary Status Report Period ending - January 26, 1996

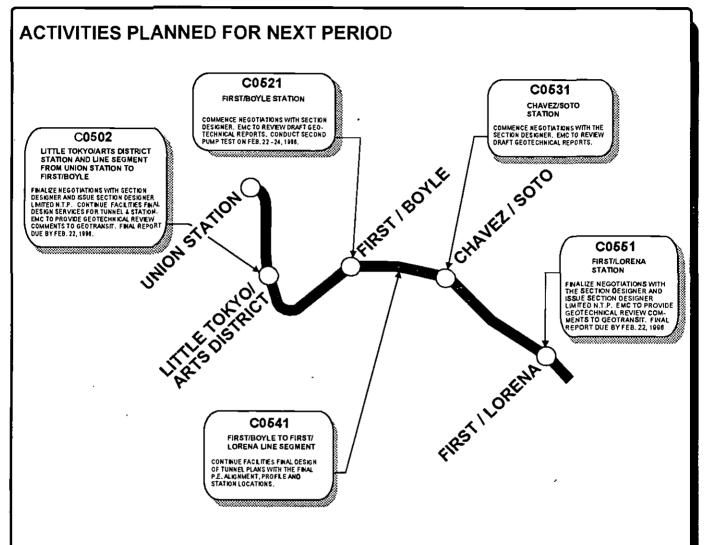




## **METRO RED LINE - Segment 3 East Side Extension**

## Summary Status Report Period ending - January 26, 1996





## SYSTEMWIDE ACTIVITIES

CONTINUE RIGHT-OF-WAY CERTIFICATION, PLAN TO CERTIFY 25 SUB-SURFACE EASEMENTS CONTINUE GEOTECHNICAL SERVICES: PLAN TO PERFORM SECOND PUMP TEST ON FEBRUARY 22 - 24, 1996. CONTINUE SYSTEMS ENGINEERING CELL LIBRARY AND ATC STUDY. PRESENTATION OF FINAL REPORT OF NOISE & VIBRATION MITIGATION STUDY TO MTA. MTA BOARD TO VOTE ON AFE FOR THE A-R-T PROGRAM SUPPORT. NEGOTIATE SCOPE FOR CWO #28, AMENDMENT 2. EMC DUE TO SUBMIT FINAL DESIGN PIP ON FEBRUARY 9, 1996 WITH ADDITIONAL SCOPE CHANGE.

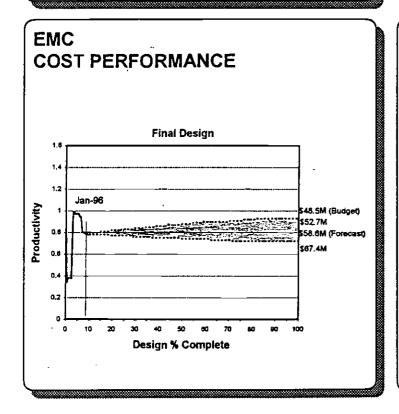
### METRO RED LINE - Segment 3 East Side Summary Status Report Period Ending - January 26, 1996



#### BUDGET Change from **Amount** Last Month (in \$ mil) (in \$ mil) **Original Budget** 980.0 None **Approved Budget** 980.0 None **Current Forecast** 1,009.0 0 **Expenditures** 13.5 0.2

#### **BUDGET ANALYSIS**

- \$3.2 million monthly average cost for project delay due to the delay of the section designers' Notice to Proceed.
- CWO in the amount of \$4M, for continuation of final design is scheduled for issue on February 2.



# EMC COST PERFORMANCE ANALYSIS

The Cost Performance Index (CPI) for January, based on the current budget of \$48.5M, stands at 79%.

Explanation for the probable range is as follows:

Best Case: If CPI improves by 10%, then the final CPI would be 93%, making the final cost of final design \$52.7M.

Worst Case: If the CPI decreases by 15%, then the final CPI would be 72%, making the final cost \$67.4M.

The Best and Worst Case Scenarios were calculated using the current forecast of \$58.6M.

## **METRO RED LINE - Segment 3 East Side**

## **Summary Status Report**

Period Ending - January 26, 1996



SCHEDULE		Change from <u>Last Month</u>
Current R.O.D.	Nov 2002	None
Design Progress	38.5%	1.4%
Construct. Progress	N/A	N/A
Critical Path Float	-308	0

#### **SCHEDULE ANALYSIS**

- The delay in full release of final design and the delay in section designers' Notice to Proceed has negatively impacted the project's critical path.
- Forecast R.O.D. is September 2003, or 308 calendar days (220 working days) behind FFGA schedule.

#### **CONTRACT CHANGES**

#### **SAFETY**

No activity for this period.

#### **COMMUNITY ISSUES**

- Metro Information field office opened on January 31, 1996 at Mariachi Plaza (First and Boyle).
- MTA's Public Affairs is sponsoring a Home Buying Workshop and a Vendor Workshop in February for residents of East Los Angeles.

## METRO RED LINE - Segment 3 East Side Summary Status Report Period Ending - January 26, 1996



#### QA / TQM ISSUES

- Comprehensive audit of EMC has been completed. EMC schedule for completing eleven new design quality procedures and revising eleven existing procedures has been met. All new procedures were accepted by the MTA
- Completion of upgrade of Design Quality Manual for EMC is scheduled for 2/1/96.
- Resolution of outstanding QA issues by EMC is underway. Items for resolution prior to initiation of East Side design have been accepted by MTA QA.
- Additional controls for East Side section designers have been incorporated in section designer contracts and issued to proposed section designers.

#### **CCR BACKLOG STATUS**

- 2 CCRs pending approval of the CCRB at an estimated value of \$62,500.
- No CCR's were approved by the CCRB during the period.

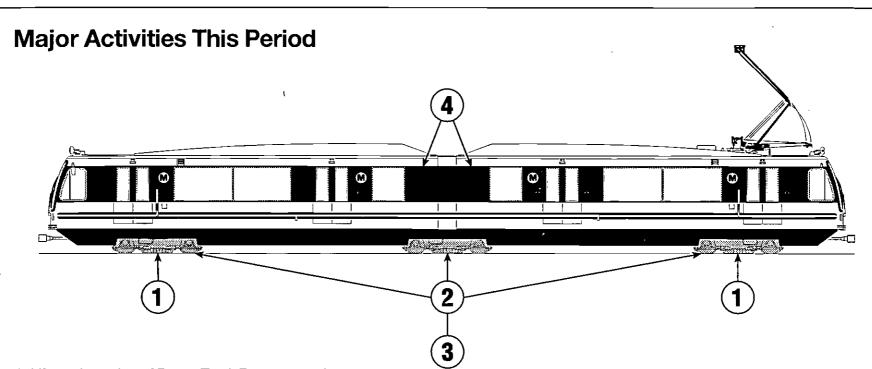
# **VEHICLE ACQUISITION PROJECT**

## **EXECUTIVE SUMMARY**

## L.A. Light Rail Vehicle

Summary Status Report Period Ending — January 26, 1996



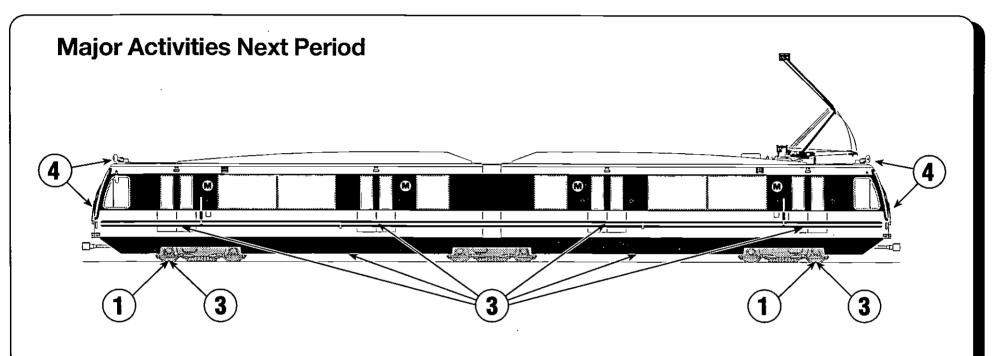


- 1. Life cycle testing of Power Truck Frame started.
- 2. First Article Inspection was accomplished on complete brake system.
- 3. Design Conformance Testing on Complete Brake System started. Life Cycle Testing on Brake Calipers conducted.
- 4. Manufacturing of carshell parts and sub-assemblies progressed in Carson. Construction Division Management toured the Carson Facility on January 26, 1996.
- 5. Latest Schedule and Weight estimation calculations were received from Siemens. Weight estimate is within specification requirements.
- 6. Vehicle Subsystems Design nearing completion.
- 7. Advanced Transit Products Development Program (ATPDP) status as follows:
  - Product "A" Weight Saving Study completed, awaiting final evaluation.
  - Product "B" Manufacturing of Concept Demonstration Units is progressing well.
  - Product "C" Air Conditioning Bench Test Unit completed and tested. Results are being evaluated.

## L.A. Light Rail Vehicle

Summary Status Report Period Ending — January 26, 1996





- 1. First Article Inspection and Design Conformance Testing of Propulsion System to start.
- 2. Evaluate MTA Board's decision on Driverless.
- 3. Activity continues as several First Article Inspections (Propulsion, Doors and Power Supplies) are scheduled for February and March 1996.
- 4. Plans to implement the Demonstration Units of ATPDP Product "B" will be prepared.

# L.A. LIGHT RAIL VEHICLE Summary Status Report

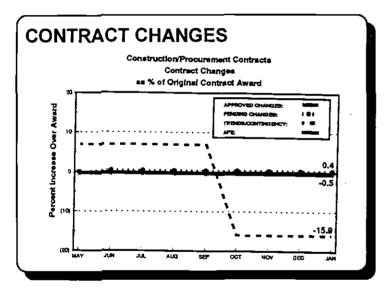
Period ending - January 26, 1996



#### BUDGET Change from Amount Last Month (in \$ mil) (in \$ mil) **Original Budget** 257.6 -0-**Approved Budget** 257.6 -0-**Current Forecast** 201.4 **Expenditures** 62.5 +1.3

#### **BUDGET ANALYSIS**

- Car reduction effected 9/08/95 which will reduce contract value from \$215 million to about \$170 million after termination liability is negotiated (2-4 months from now).
- Current forecast includes reduction of both procurement contract value and other project costs.



#### **CONTRACT CHANGE ANALYSIS**

The figures for January 1996 are as follows:

Approved Changes (0.8	5%)
Pending Changes 0.0	4%
Trends/Contingency (15.5)	9%)
AFE 0	.0%

Trends/Contingency decreased due to a revised forecast of necessary contingency to reflect the reduction of the P2000 car order from 74 cars to 52 cars.

#### **SCHEDULE** Change from **Last Month** Schedule Car Delivery June 1997 +30 days 1st Car Oct. 1998 52nd Car -210 days 85-95% complete **Design Progress** +5% Fabrication Progress 25-30% complete N/C N/C **Critical Path** Carshell delivery Delay (1st Car) -8 months +30 days

#### **SCHEDULE ANALYSIS**

Contractor's last forecast schedule reflected a total of eight months delay in 1st car deliveries. Other subsystems with potential impact on delivery are air conditioning, doors and communications equipment. Carshell delivery is still on the critical path. Acceleration of delivery schedule for first several carshells is unlikely, however, delivery schedule is projected to improve for later units.

## L.A. LIGHT RAIL VEHICLE Summary Status Report Period ending - January 26, 1996



#### **SAFETY**

#### COMMUNITY ISSUES

• No activity for this period.

#### **QA / TQM ISSUES**

- Siemens has established its Quality Assurance Manual over operations at the Carson carshell facility, and has completed 30 of 36 lower level manufacturing and quality procedures. The remaining procedures will be completed prior to the corresponding work they are to control.
- LTK has not received final QA Manuals for review from three Siemens subcontractors, but has been advised that revisions are forthcoming. Two of the three suppliers submitted a discussion of revision plans, which were approved for action.
- There have been First Article Inspections for the WABCO braking equipment and AEG Propulsion equipment.
   Almost all equipment for these complex systems was inspected, and suppliers responded well to complete most LTK pre-FAI comments.
- Power Truck is in the test fixture, ready to begin fatigue testing as soon as the procedure is updated to reflect agreements.

#### ANTICIPATED ACTIVITY DURING NEXT REPORTING PERIOD

- Additional FAI's are scheduled for the Door Control and Auxiliary Power systems in March.
- Carshell construction appears to be on schedule for starting assembly of the first shell this month.
- The first underframe has been received by Siemens in Sacramento. Fit-up of equipment is going well and will continue throughout February.

#### **CCR BACKLOG STATUS**

- 1 CCR pending approval by the CCRB for an estimated value of \$113,000.
- No CCR's were approved by the CCRB during the period.