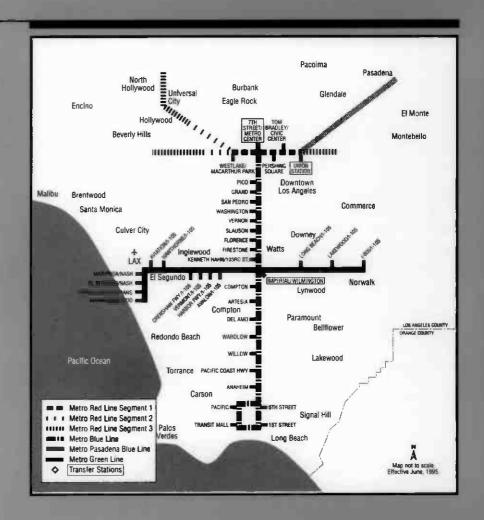
MTA METRO CONSTRUCTION



Executive Report Rail Program Status



RAIL PROGRAM STATUS SUMMARY

THE LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
METRO CONSTRUCTION DIVISION

RAIL PROGRAM SUMMARY

Cost Status

Current Budget \$803,868,000

The Current Budget incorporates work scope approved by the MTA Board in February.

Schedule Status

Current Plan Design Progress May 2001 Construction Progress

Plan 98.6% 9.4%

Actual

80.1%

6.9%

The project was rebaselined to incorporate Value Engineering/Cost Containment items.

Safety Status

Project Rate 0.0

National Average

Lost Time Rate

0.0

4.9

Lost Work Days

148.1

The project is averaging 20,000 labor hours per month with no Lost Time Injuries.

Quality Assurance

MTA Quality Management is reviewing recommendations for design and construction quality.

Monthly Highlights

- The MTA continued working with the EMC to develop a detailed Project Implementation Plan (PIP) for CWO 037 for \$3 million for the resumption of design work.
- The MTA is preparing a draft report for submittal to the MTA Board in June 1996 which assesses project cost and schedule based on current scope and design status.
- The MTA continued working with the EMC to develop scope, time and resources for the resumption of final design.

METRO RED LINE SEGMENT 2

Cost Status

Current Budget

\$1,640,781,000

There were no changes to the Current Budget during the period.

Schedule Status

Design Progress N/A

Construction Progress

Wilshire Corridor

Current Plan July 1996

Plan

79.0%

79.0% 73.0%

Wilshire Corridor is currently ahead of schedule.

Vermont/Hollywood - Current Plan

Dec 1998

Actual

Vermont/Hollywood Corridor is behind schedule due to tunnel delays under Hollywood Blvd.

Safety Status

Project Rate 2.8

National Average

Lost Time Rate Lost Work Days

74.1

4.9 148.1

· Eighteen contracts were completed with no Lost Time Injuries.

Quality Assurance

A B263 Kaiser Entrance Design Team Working Session was held on April 11, 1996.

Monthly Highlights

- Completion delays of the Vermont/Hollywood Corridor tunnel and stations continues to impact the 8610 Track Installation contract and subsequently the forecast completion for this corridor.
- Pre-revenue operations for the Wilshire Corridor is scheduled to begin on May 18, 1996.
- Continued system integration testing at all stations along the Wilshire Corridor.

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

September 2000

Plan 96.8% 42.3%

Actual

90.1%

22.1%

The project is behind schedule due to C0331 grouting delays.

Safety Status

Lost Time Rate Lost Work Days Project Rate

National Average

0.3 17.5

4.9 148.1

• The project completed 160,000 labor hours with no Lost Time Injuries.

Quality Assurance

A C0301 Partnering/Teambuilding Session was held on April 16-17, 1996.

Monthly Highlights

- The MTA is working with the EMC to reduce the overall cost forecast by 15% as the project moves fully into construction.
- Systems and pre-revenue operation schedules are under review to mitigate schedule delays.
- Acquisition of C0331 underground easements are being closely monitored to prevent delays in mining operations.

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

Current Plan TBD

Plan

0%

0%

Actual

0%

0%

Safety Status

Lost Time Rate

Project Rate

National Average

Lost Work Days

N/A N/A

4.9 148.1

No Construction Safety activity for this period.

Quality Assurance

No Quality Assurance activity for this period.

Monthly Highlights

- The MTA Board approved an engineering feasibility study for a third alternative consisting of a deep bore alignment along Wilton Place and Arlington Avenue.
- The MTA Board approved the transfer of \$17,000,000 equipment contract commitments to the East Side Extension.
- The MTA is preparing a comprehensive decommitment plan for professional services, OCIP, and other specific items for the June 1996 MTA Board meeting.

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

Plan 20.0% 0.0%

Actual

16.6%

0.0%

Design Progress is behind the Current Plan due to authorized scope changes.

Safety Status

Project Rate

National Average 4.9

Lost Time Rate Lost Work Days N/A N/A

148.1

No Construction Safety activity for this period.

Quality Assurance

 MTA Quality Assurance submitted revisions of the Resident Engineer Manual to Fluor Daniel for review.

Monthly Highlights

- The MTA is evaluating schedule mitigation measures to offset potential schedule delays.
- MTA real estate is developing a plan for additional C0551 property acquisitions.
- Cost mitigation measures are being undertaken to mitigate increases to the forecast as a result of project escalation.

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

June 1997

90%

25%

52nd Car

Oct 1998

 The schedule from the contractor reflects 7.5 months delay in first car deliveries due to design and manufacturing problems.

Quality Assurance

LTK conducted a Quality Assurance audit of Adtranz, the propulsion system supplier.

Monthly Highlights

- Selection of the vehicle delivery method and location to MTA site is under evaluation.
- Evaluation of the 22 car termination cost estimate from Siemens continued.
- First Article Inspections of the car underframe structure and roof structure were comoleted.

STATUS DATE: 4/26/96

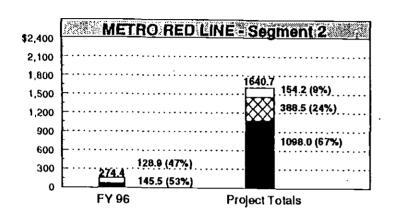
METROPOLITAN TRANSPORTATION AUTHORITY PROJECT COST REPORT - TOTAL RAIL PROGRAM SUMMARY BY COST ELEMENT (IN THOUSANDS)

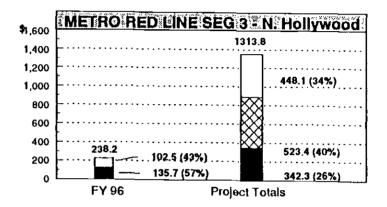
PROJECT: TOTAL BAIL PROGRAM

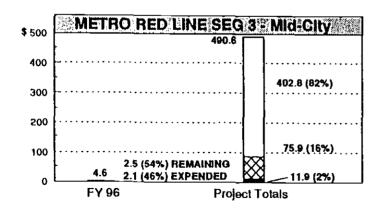
Page 4

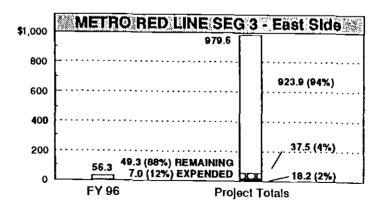
PROJECT: TOTAL RAIL PROGRA	M									
ELEMENT	BUD	GET	COMMIT	MENTS	INCURR	ED COST	EXPEND	ITURES	CURRENT	VARIANCE
DESCRIPTION	ORIGINAL	CURRENT	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	FORECAST	(9-2)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(6)	(9)	(10)
TCONSTRUCTION	5,153,507	5,244,746	13,909	3,610,325	0	0	591	2,618,076	4,864,284	(46,326
S PROFESSIONAL SERVICES	1,685,529	2,060,617	6,476	1,534,147	0	0	0	1,352,238	2,010,071	47,585
R REAL ESTATE	460,002	546,348	2,325	398,202	0	0	0	397,374	495,206	2,161
FUTILITY/AGENCY FORCE ACCOUNTS	146,279	159,681	330	128,865	0	0	(591)	105,365	155,632	1,040
D SPECIAL PROGRAMS	11,045	16,911	102	5,751	0	o	0	4,690	15,864	(1,046
CONTINGENCY	560,120	343,895	0	0	o	o	0	0	287,648	(56,24
A PROJECT REVENUE	(18,115)	(38,123)	(62)	(2,822)	0	0	0	(11,284)	(33,063)	5,06
TOTAL PROJECT	8,018,367	8,334,075	23,080	5,674,468	0	0	0	4,466,459	7,795,642	(47,768
OTHER LOCALLY	BUD	GET	СОММП	MENTS	INCURR	ED COST	EXPEND	ITURES	CURRENT	VARIANCE
FUNDED ACTIVITIES	ORIGINAL	CURRENT	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	FORECAST	(9.2)
	. 0	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
TCONSTRUCTION	0	138,351	31,493	85,909	0	0	0	21,253	147,822	9,47
S PROFESSIONAL SERVICES	0	50,873	0	17,933	0	0	0	11,454	51,043	170
R REAL ESTATE	0	o	(1)	0	0	o	0	37	o	
F UTILITY/AGENCY	0	0	o	0	0	o	0	0	o	
FORCE ACCOUNTS						·				
D SPECIAL PROGRAMS	0	20	0	20	0	o	0	20	20	•
CCONTINGENCY	0	8,131	o	0	0	0	0	0	7,739	(39)
A PROJECT REVENUE	0	0	o	0	0	0	0	0	(11,517)	·
TOTAL OTHER ACTIVITIES	0	197,375	31,492	103,862	<u>_</u>			32,764	195,107	(2,26)
PROJECT GRAND TOTAL	8,018,367	8,531,450	54,572	5,778,330		0		4,499,223	7,990,749	(50,035
			1		-	· •	•	1,100,EEG	1,000,140	(50,03

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



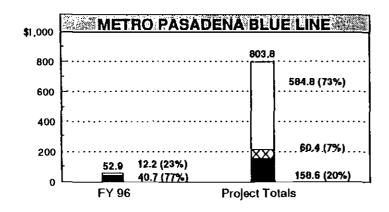


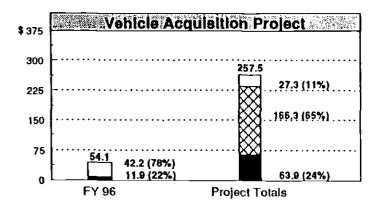




Actual Spent Encumbered Remaining Budget

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





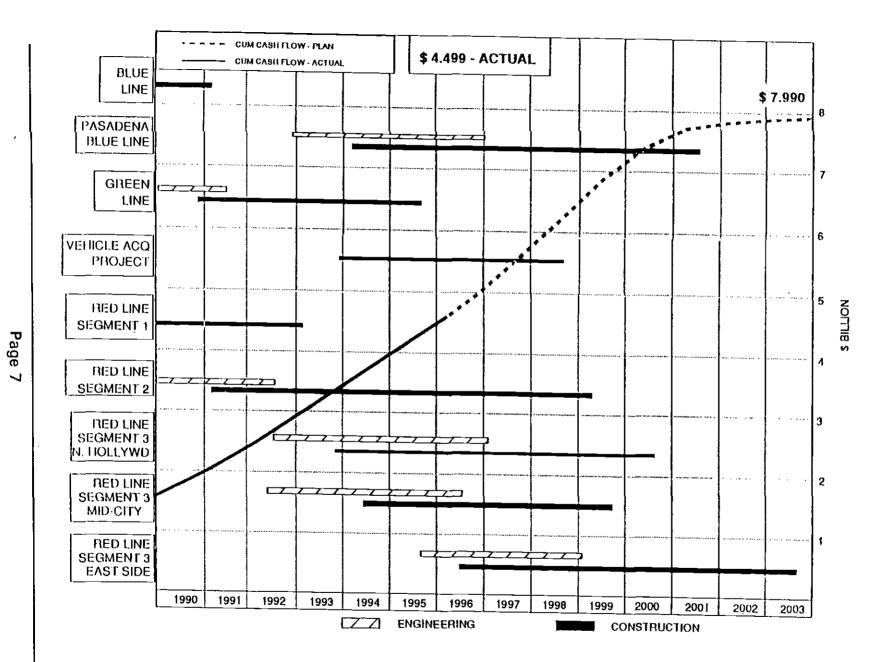
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Actual Spent



Encumbered

Remaining Budget



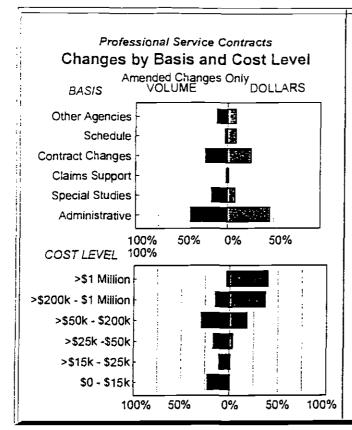
METROPOLITAN TRANSPORTATION AUTHORITY FUNDING SOURCES (IN MILLIONS)

			·					(IN WILL	"ION2}		,								APRIL 1	996
	METRO BLUE		PASA(BLUE		METRO LIN	GREEN E	METRO SEGM	RED ENT I **	METRO SEGME	RED ENT 2	METRO F		METHO I SEG 3		ME180 I SE0 1			ACQUIS	TOTA PHOG	
:		*		<u> </u>		%	8	ж.	\$	%	\$	*	\$	<u> </u>	3	×	3	×	11100	
FTA-SECTION 3]		<u> </u>			605.3	42	667.0	40	681.0	52	242.5	49	492.9	51			2688.7	32
FTA - OTHER					ĺ												11.9	4	11.9	O
ISTEA - FED SURFACE TRANSIT PHOGRAM									52.1	3	50.0	5			25.0	2	84.0	32	211.1	2
FED-ISTEA STPICMAQ (REGIONAL)									2,5	,	39.9	3	40.4	8	86.1	9	6.1	3	175.0	2
FTA-SECTION 9		į į					90.6	6		·	- 	;					}		90.6	} . ,}
STATE			387.8	48	106.4	15	210.3	15	133.0	8	65.0	4	40.0	8	65.0	2	33.5	13	1041.0	12
STATE ISM MATCH											3.2	o	7.2	2	(1.1	1			21.5	o
SE 1985 TRUST FUNO				l							75.0	6							75 0	
PROPOSITION A	877.2	100	202.6	25	205.1	29	179.5	12	501.9	31		İ							1966.3	23
PROP A/G (TRANSIT ENHANCEMENT)									68.7	4									68.7	,
PHOPOSITION G			213.5	27	400.3	56					195.5	15	151.6	32	299.1	35	1 2 2.0	48	1382.0	16
PROP G (AMERICAN DISABILITIES AGT)					6.0	1													6.0	o
CITY OF LOS ANGELES	•				İ		34,0	2	157.5	10	190.7	14	9.0	1	0.3				391.5	5
BENEFIT ASSESSMENT							130.3	∕9	58,0	4	13.5	1							201.8	2
COST OVERRUN ACCOUNT	<u> </u>]]		 	200.1	14		1				İ				ì	200.1	2
TOTAL	877.2	100	803.9		717.8	100	1450.1		1640.7	100	1313.8	100	490.7	100	979.5	100	257.5	100	8531.2	100

[.] CONSISTS OF LIGHT RAIL LINE (\$847) AND MC-5 WORK (\$30).

Note: Data reflecte Current Budget

^{**} LRT PORTION INCLUDED IN BLUE LINE FORECAST.



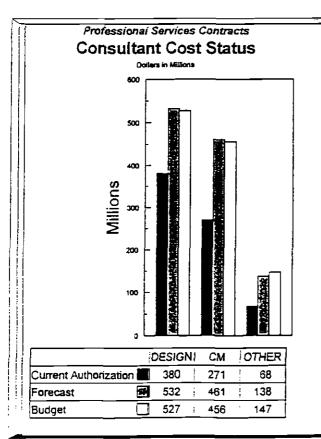
CHANGE BASIS ANALYSIS

Administrative changes account for approximately 40% or 286 of the 705 Consultant Change Notices overall. This equals 46% 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 77% of all change costs associated with the Rail Project or \$95.3M of a total change cost of \$124.4M. This equal 19% of the total change volume or 134 of 705 total changes.

Note: Basis and Cost charts include only approved and amended changes. Changes logged for Planned Scope Additions are no longer included in the Basis and Cost charts.

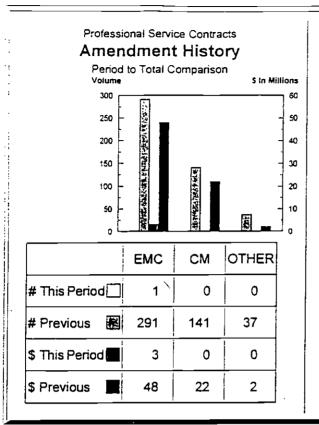


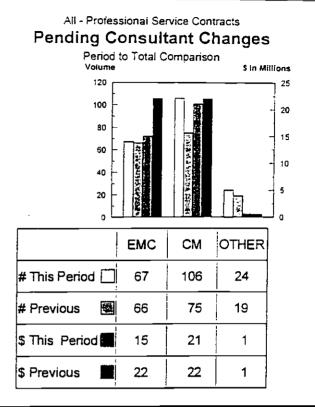
PROFESSIONAL SERVICES COST ANALYSIS

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 design and construction management professional services continue to exceed budget amounts.





CONSULTANT CHANGE REQUEST ANALYSIS

Ten new Requests for Change (RFC) were received during the period with a total estimated value of \$313 thousand.

Thirty-six new Consultant Change Notices (CCN) were assigned during the period with an estimated negative value of \$479 thousand. The negative value results from CCN's which are being processed to reflect credits for unused line item staff budgets for the Segment 2 Construction Manager.

One Consultant Change Notice (CCN) was approved by the MTA during the period with a value of \$3.29 million.

Two CCN's were rejected / cancelled during the period with an estimated value of \$8 million.

CCN's for Planned Scope Additions, which are not true changes to the Contract, have been removed from the Professional Service Contract Change statistics.

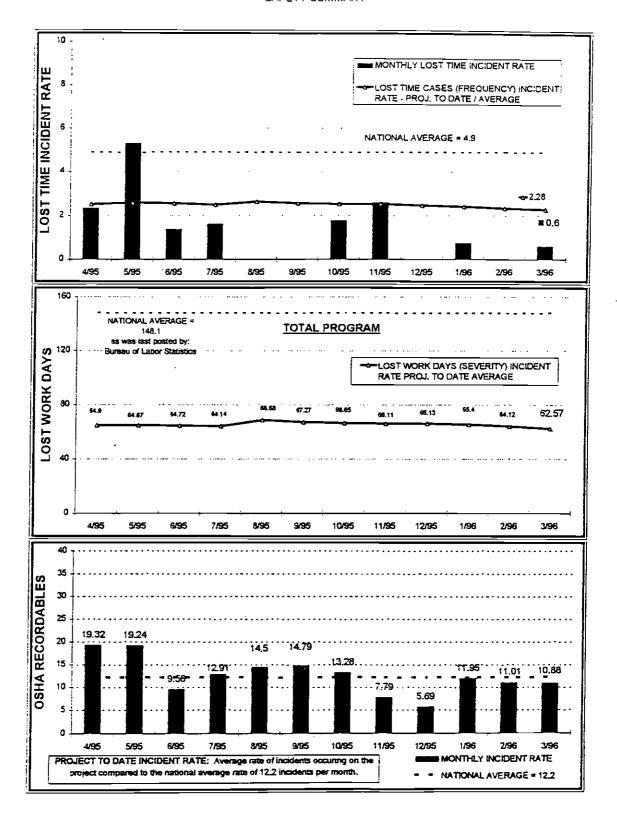
Cost Performance Relative to Corporate Goals (INTHOUSANDS)

	METHU	BLUE UNE			METHOU	REEN LINE		RED LINE		RED UNE		RED LINE	METRO				VEHICLE A		10	TAL	$\tilde{\omega}$
		5255517	BIJE					AENT)		NENLS	SEGMEN	U 2 W)	SEGMEN	T 3 MC	SEGMEN	7 3 ES	PRO	JECT	PROC	MARI	JGO
CONSTRUCTION	mir në	PEHLENI	prine	PEHLENI	mine	PEHLENI			LTT VIE				DOLLARS	PERCENT			DOLLARS	PERCENT	DOLLARS	PERCEL/T	řI –
CONSTRUCTION	657,487	74.95%	432,340	53.78%	477,238	66.49%	812,270	56 02%	1,144,186	69.73%	822,408	62.70%	0	0	644,444	65 22%	180,644	89 72%	5,171,015	6171%	- %
REAL ESTATE	55.592	6 34%	69,259	8 62%	26,047	3 63%	140,000	9.66%	87,773	5 35%	89,078	6.79%	0	0	27,459	2 78%	o	O DUPA	495,206	6 20 %	. In
PROFESSIONAL SERVICES:																					
ENGINEERING/DES	69,587	7 93%	117,940	14 67%	\$3,296	11.60%	221,659	15.29%	161,900	10 05%	90,711	6 92%	0	0	103,747	10 50%	1,700	0 84%	853,540	10 tet/a.	
CONSTRUGME.	91,642	10 45%	64,076	8 22%	78,213	10.90%	116,429	6 03%	159,290	9.71%	115,919	8 84%	0	0	84,963	8 60%	٥	0 00%	712,552	8 92%	. []
STAFF	17 655	2.01%	44,196	5,50%	24,179	3.37%	95,556	6.59%	55,739	3.40%	59,588	4.54%	0	0	37,565	3.80%	3,840	191%	338,320	4 23%	, 4:
OTHER	14.222	1 62%	18,459	2,30%	17,337	2.42%	32,671	2 25%	20,030	1 22%	39,318	3 00%	0	0	17,358	1.76%	9,237	4 59%	1641632	2 11%	
SUBTOTAL	193,106	22 01%	246,871	30.59%	203,025	28.28%	466,317	32.16%	399,959	24.38%	305,536	23.30%	0		243,653	24.66%	14,777	7.34%	2,073,044	25.94 X	. 2
CONTINGENCY	963	0.11%	56,809	7.07%	12,757	1.78%	31,432	2,17%	9,575	0 58%	106,077	8 09%	0	0	72,523	7 34%	5,930	2 55%	296,066	371%	.
PROJECT REVENUE	(29,877)	341%	(1,211)	-0.15%	(1,263)	Q.18%	٥	0.00%	(712)	0.04%	(11,517)	4) 88%	0	0	0	0 0.7%	0	0 00%	(44,580)	0 56%	
GRAND TOTAL	877,271	100.00%	803,868	100.00%	717,802	100.00%	1,450,019	100 00%	1,640,781	100.00%	1,211,580	100 00%	o	0	968,079	100 00%	201.351	100 00%	7,990,751	100 00%	!!.

METRO RED LINE SEGMENT 3 MID CITY FORECAST NOT AVAILABLE.
NOTE: Data reflects Current Fusicast.

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TOTAL METRO SAFETY SUMMARY Prepared by MASS TRANSIT GROUP

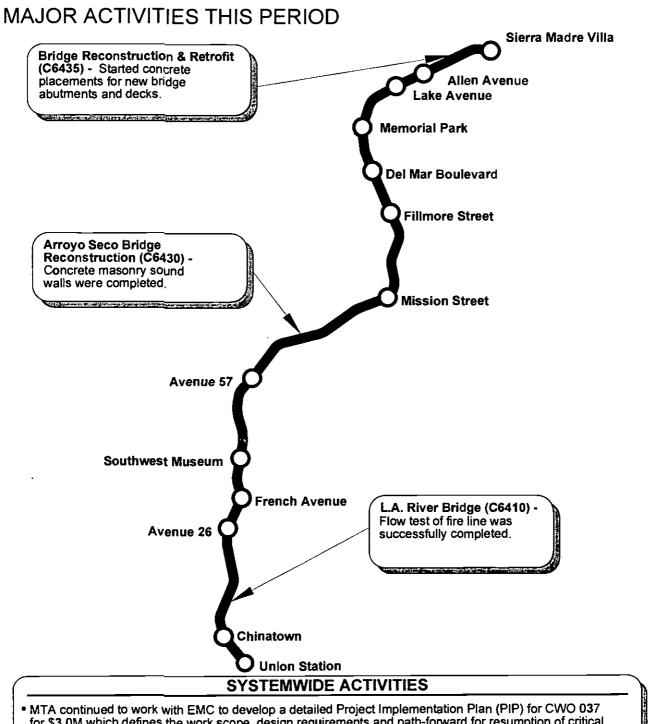


EXECUTIVE SUMMARY

Summary Status Report

Period Ending - April 26, 1996



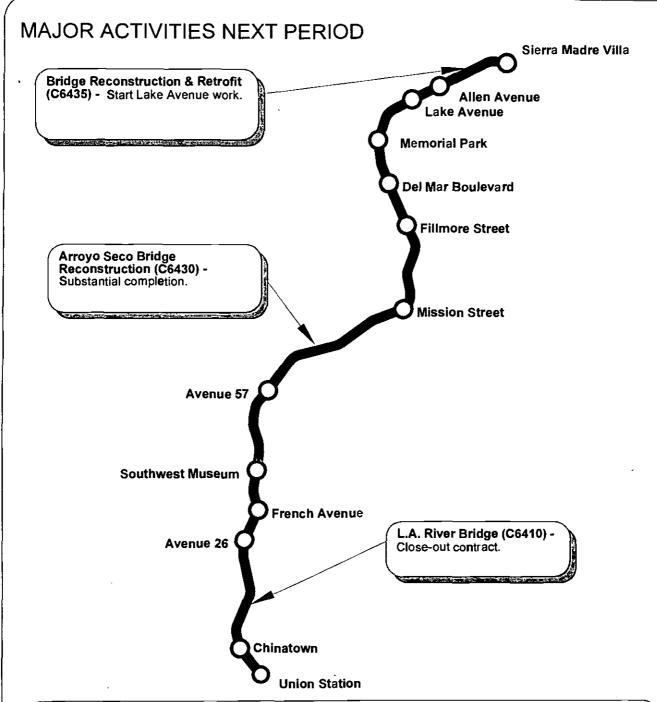


- for \$3.0M which defines the work scope, design requirements and path-forward for resumption of critical
- MTA continued to work with EMC to detail scope, time and resources required for resumption of final design: design on critical contracts must resume by July 1, 1996 or the May 2001 ROD will begin to be impacted.

 • MTA began preparation of a draft report for submittal to the MTA Board in June 1996 which assesses the
- Project cost and schedule for reasonableness based on Current scope definition and design status.
- Urban Planning consultants and the MTA met with community representatives regarding cost reduction work scope changes.
- MTA Environmental Group evaluated the potential for additional or Supplemental Environmental Impact Statements (SEIR's) due to cost reduction work scope changes.

Summary Status Report Period Ending - April 26, 1996

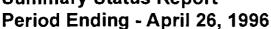




SYSTEMWIDE ACTIVITIES

- MTA will finalize the draft report for submittal to the MTA Board in June 1996 which assesses the Project cost and schedule for reasonableness based on Current scope definition and design status.
- MTA Environmental Group will issue a work order for consultant analysis of impacts associated with cost reduction work scope changes.
- Initial deliveries of pre-cast concrete ties for Contract P2100 will begin.
- Caltrans will execute the Fund Transfer Agreement to allocate \$28.0M from the State Highway Account Fund.

Summary Status Report





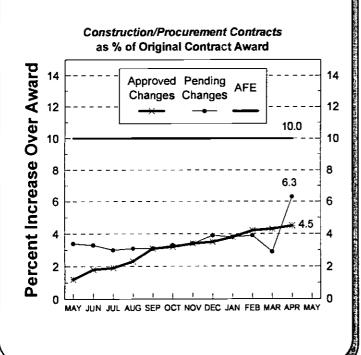
BUDGET

	Amount (\$ in mil)	Change from Last Month (\$ in mil)
Original Budget	841	None
Approved Budget	804	None
Current Forecast	804	None

BUDGET ANALYSIS

- The Project budget was rebaselined on February 28, 1996 to incorporate Value Engineering and Cost Containment items.
- Detailed Project baseline scope and cost is currently being developed; a report which assesses the budget for reasonableness is being prepared for submittal to the MTA Board in June 1996.
- The Approved Budget and Current Forecast are predicated on resumption of final design by July 1, 1996. Delays in the activities required to facilitate re-start of engineering on the critical contracts have resulted in negative float to the Project schedule. Mitigation efforts such as schedule compression are being analyzed to avoid a delay to the May 2001 ROD and a corresponding increase to the Project cost.
- The Original Budget of \$841.0M was formally adopted in January 1993 and was based on a November 1997 ROD.

CONTRACT CHANGES



CONTRACT CHANGE ANALYSIS

- Approved and pending changes processed to date are less than the AFE values. In general, the cumulative value of changes is forecast to remain below the cumulative value of AFE's.
- Pending Changes increased demonstrably during the period, primarily for Contract C6435, Reconstruction & Retrofit of Concrete & Steel Bridges (CN 025 - Repair of Fire Damaged Lacy St. Bridge). change will result in an increase to the AFE since the damage occurred after the contract award and was therefore not included in the original AFE amount.
- Pending Changes also increased due to Contract C6430, Arroyo Seco Bridge Reconstruction (CN 52.02 - Operating Engineer's Strike).

Summary Status Report

Period Ending - April 26, 1996



SCHEDULE

Float (Calendar Days)

Change from Last Month

Current ROD	May 2001	None
Design Progress	* 80.1%	+0,1
Constr. Progress	** 6.9%	+0.1
Critical Path	-28 days	-28 days

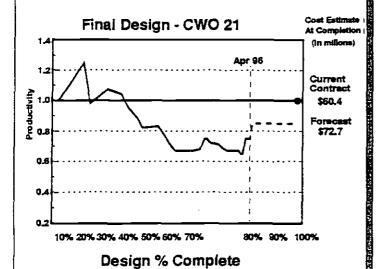
*Based on original design work scope; design will be rebaselined pending an evaluation of design status, definition of new work scope & preparation of an execution plan.

**Assumes no change to contract packaging, except for deletion of Safety, Security and SCADA contracts per Value Engineering/Cost Containment items. MTA is analyzing & documenting contract re-packaging options for submittal to the Board in June 1996; consolidation of contracts into approximately 26 packages may provide an economies-ofscale cost advantage & reduce administration costs.

SCHEDULE ANALYSIS

- The Project schedule, showing a May 2001 ROD, was rebaselined in February 1996 to incorporate cost reduction items.
- Design has been on hold since June 1995 (see EMC Cost Performance Analysis below). detailed Project Implementation Plan (PIP) is being prepared which defines the Project scope and resources necessary for design to resume.
- Resumption of design on critical contracts must occur by July 1, 1996. The April schedule update shows activities required to facilitate engineering re-start on these contracts are behind plan. Staff is reviewing mitigation options, including expedited completion of the PIP and an evaluation of design, construction and other critical activity durations. Therefore, the schedule forecast this period shows negative float against the May 2001 ROD.
- MTA staff will also prepare a report for submittal to the Board in June 1996 which assesses the schedule for reasonableness & recommends optimized contract packaging.

EMC COST PERFORMANCE



NOTE: The chart above reflects information for the EMC's current CWO only (CWO No. 021). Additional CWO's to authorize post-design shutdown work and design for Value Engineering/Cost Containment items are pending.

EMC COST PERFORMANCE ANALYSIS

- Design has been on hold since June 1995 initially due to resolution of outstanding CCR's and cost overruns; later, it was concurrently on hold pending MTA Board decision on Value **Engineering & Cost Containment items**
- The final design forecast for CWO 021 exceeds the EMC Contract Value, resulting in a Productivity factor of less than 100%. amendment was submitted to the Board in April to resolve CCR's and increase the contract value. CWO 021 will be closed out pending resolution of additional amendment(s).
- MTA Board action in February 1996 established a new budget & initiated the process of design re-start pending preparation of a PIP. CWO 037 for \$3.0M is for development of the PIP, definition of final design requirements and initial resumption of some design work.
- The final design cost has been impacted by (1) redesign for cost reduction items, (2) level-ofeffort costs incurred during the "design hold" period, (3) approved and pending CCR's and (4) cost overruns to date.

Summary Status Report

Period Ending - April 26, 1996



CONSTRUCTION SAFETY STATISTICS

Change from Last Month

Recordable Injury Rate

1994 National Average 12.2

Project Rate (Cum.) 3.4 -0.2

Lost Time Rate (Frequency)

1994 National Average 4.9

Project Rate (Cum.) 0.0 None

Lost Work Days (Severity)

1991 National Average 148.1

Project Rate (Cum.) 0.0 None

NOTE: Statistics are based on March data.

CONSTRUCTION SAFETY SUMMARY

- Project is averaging over 20,000 construction work hours per month and has continued with zero Lost Time cases and no lost work days.
- Continued with eight (8) OSHA-200 recordable cases to date, resulting in a further reduction of the cumulative project rate.

COMMUNITY ISSUES

 Community concurrence on design changes is key to finalizing design and validating the Project cost and schedule. MTA Public Affairs and construction staff continue to hold community meetings in an effort to obtain consensus on cost reduction changes to station design.

Summary Status Report Period Ending - April 26, 1996



QA/TQM ISSUES

- MTA Quality Management is reviewing recommendations from the quarterly Project Management Oversight (PMO) report concerning design and construction quality.
- MTA Quality Management will facilitate a meeting in May concerning the use of Pasadena design criteria versus systemwide baseline design criteria.
- MTA Quality Management completed the audit of the C6435 MTC Field Office. The audit report will be issued in May.

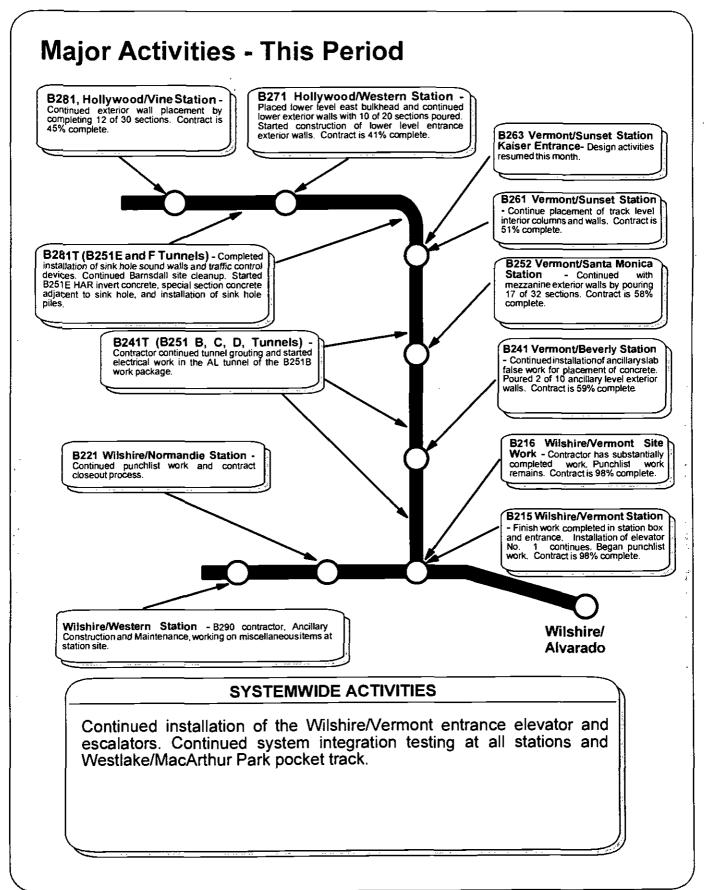
CCR BACKLOG STATUS

- 13 Consultant Change Requests (CCRs) are pending approval of the Change Control Review Board (CCRB) at an estimated value of \$5,642,473.
- 35 CCRs have been approved by the CCRB for an estimated value of \$3,860,613

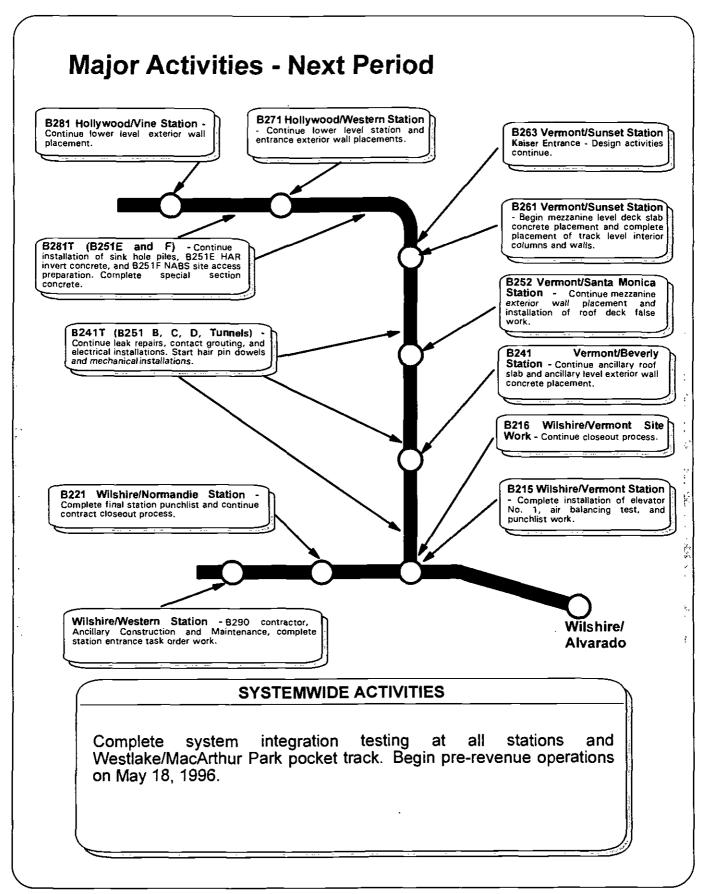
METRO RED LINE SEGMENT 2

EXECUTIVE SUMMARY











BUDGET

	Amount	Change from Last Month
	<u>(in \$ mil)</u>	<u>(in \$ mil)</u>
Original Budget	1,446	None
Approved Budget	1,641	None
Current Forecast	1,641	None

BUDGET ANALYSIS

Overall, there are no changes to the various budget and forecast categories this period.

Construction/Procurement Contracts as % of Original Contract Award 25 APPROVEO CHANGES: PENDING CHANGES: AFE: 13.0 15 13.0 8.0 7.6

OCT

DEC

CONTRACT CHANGES

APR

JUN

AUG

CONTRACT CHANGE ANALYSIS

The percent of approved and pending change values shows a slight change this period to account for the inclusion of H0840, Fare Collection, in the contract award base total.

APR

FEB



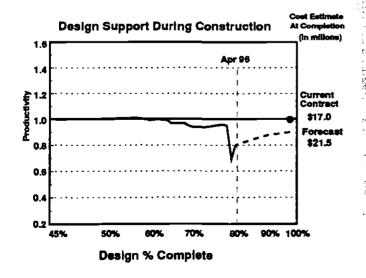
SCHEDULE

Wilshire Corrido	<u>10</u>	Change from Last Month
Current ROD	July 13, 1996	0 days
Design Progress	100%	None
Critical Path Float	+13 Days	0 days
<u>Vermont/Hollyw</u>	ood Corridor	Change from Last Month
Current ROD	Dec. 31, 1998	None
Design Progress	99%	None
Critical Path Float	-82 Days	0 days
Const. Progress	73.0%	1.0%

SCHEDULE ANALYSIS

- The Grand Opening for Wilshire Corridor is scheduled for July 13, 1996. The positive float remains at positive 13 calendar days. To date, 36 tests have been completed; 42 tests are 80% or greater completed; 15 tests are 60% or more completed; and most other tests have undergone some pretest checking.
- The critical path is through completion of Transit Automatic Controls testing and resolution of discrepancy reports, substantial completion of systems integration testing by May 17, 1996, and beginning pre-revenue operations on May 18, 1996, with completion forecast for June 30, 1996.
- Vermont/Hollywood Corridor critical path continued through Contract B271, completion of station structure concrete, B610 trackwork installation, B620 train control installation, and system integration testing and pre-revenue operations.
- Concrete pouring activities at the B271 station continued to progress slower-than-planned. To mitigate schedule slippage by the Contractor, P-D and the Contractor are reviewing the Contractor's staffing to ensure adequate manpower. In addition, P-D continued to review and return submittals so that future concrete work can proceed unimpeded. It is expected that mezzanine concrete activities will proceed faster than planned, mitigating the delays and supporting the critical trackwork access milestone on time.

EMC COST PERFORMANCE



EMC COST PERFORMANCE ANALYSIS

- The EMC Cost Performance chart represents the cost performance for design support during construction (DSDC) on a cumulative to date basis.
- This chart compares the actuals versus the earned values in terms of work hours and reflects an estimated cumulative to date Cost Performance Index (CPI) through April 1996 of 0.80.
- The April 1995 estimated cumulative CPI is based on the addition of approximately 37,000 budget hours approved in April.



CONSTRUCTION SAFETY STATISTICS

Change from Last Month

Recordable Injury Rate

National Average 11.8
Project Rate (Cum.) 20.8 -0.2

Lost Time Rate (Frequency)

National Average 4.9
Project Rate (Cum.) 2.8 N/C

Lost Work Days (Severity)

National Average 148.1
Project Rate (Cum.) 74.1 -0.8

Eighteen active contracts were completed this month without a lost time injury.

Segment 2 is averaging over 140,000 work hours per month.

(Based on March statistics)

CONSTRUCTION SAFETY SUMMARY

- The Segment 2 contractors completed 140,000 work hours in March, with only 1 Lost Time Injury, producing a Lost Time Injury Rate of only 1.4, compared to the 1994 National Average of 4.9. Through March, Segment 2 has accumulated over 8,500,000 work hours, while producing a rate of just 2.8 Lost Time Injuries per 200,000 work hours.
- Wilshire Corridor construction safety activities continue to decrease as construction activities shift toward preparing for revenue operations date (ROD).
 Vermont/Hollywood work levels continue to increase with regular meetings and inspections between MTA Construction Safety staff and contractor personnel being scheduled.

COMMUNITY ISSUES

WILSHIRE CORRIDOR

- · Grand Opening activities are planned for the months of June and July.
- MTA Marketing is finalizing plans for the July 13, 1996 Grand Opening.

HOLLYWOOD AND VERMONT CORRIDOR (BARNSDALL AREA)

The MTA is continuing the Community Outreach Program for communities impacted by Contracts B251 E and F.

HOLLYWOOD/VINE

MTA Public Affairs is working with the community to mitigate concerns regarding noise issues.



QA/TQM ISSUES

- A B263 Kaiser Entrance Design Team Working Session was held on April 11, 1996.
- MTA Quality Assurance completed an audit of the B252 contractor, Kiewit Shea, JV. The audit report will be issued in May.
- · Quality Assurance surveillances of work-in-progress were conducted on Systems Integration Testing operations.
- A Change Notice was issued to Kajima/Ray Wilson and Tutor-Saliba-Perini for B241T and B281T to incorporate revised Quality Requirements.
- MTA Quality Assurance is monitoring quality issues on B241T and B281T to support and facilitate construction management inspection force activities.

CCR BACKLOG STATUS

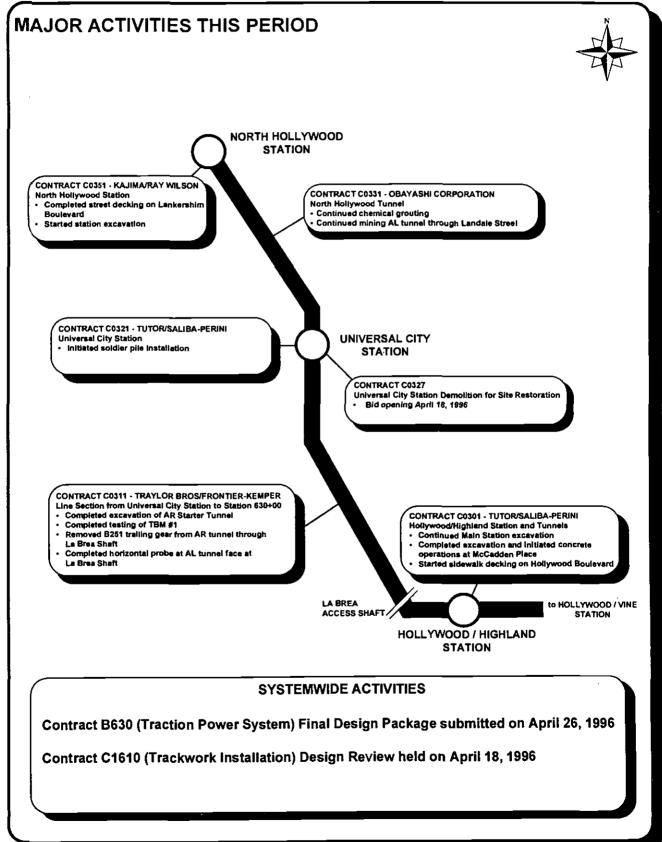
- 40 CCRs are pending, awaiting approval of the CCRB, at an estimated value of \$4,272,818.00.
- 71 CCRs have been approved by the CCRB for an estimated value of \$17,501,571.00.

METRO RED LINE SEGMENT 3

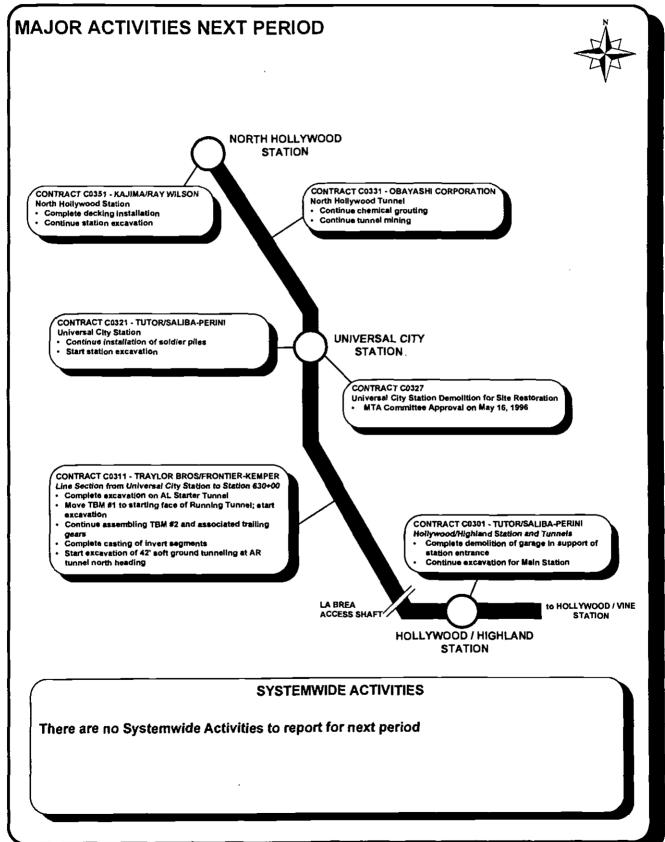
NORTH HOLLYWOOD EXTENSION

EXECUTIVE SUMMARY







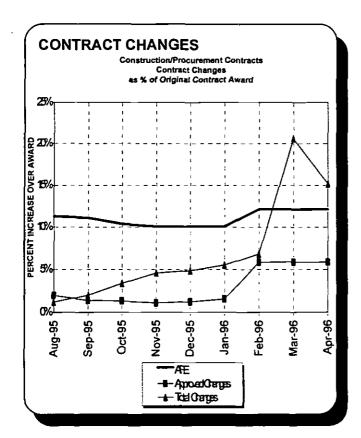




BUDGET Amount (in \$ mil) Original Budget 1310.8 Approved Budget 1313.8 Change from Last Month (in \$ mil) None Approved Budget 1310.8 None Current Forecast 1311.6 None

BUDGET ANALYSIS

- The Original Budget of \$1,310.8M was established by MTA Board action on March 25, 1993 with the approval of the Full Funding Grant Agreement (FFGA) with the FTA. The budget has been modified on three occasions through the Project Budget Change Request process for a net increase of \$3.02M, resulting in an Approved Budget of \$1,313.8M. This \$3.02M increase provides for Other Locally Funded Activities (New Requirements) for Non Revenue Connector and Artwork in Stations
- The Approved Budget varies from the Current Forecast by \$2.2M. This variance is within the Other Locally Funded Activities portion of the project and the majority of this variance is caused by substantially less funding for Artwork in the Current Forecast than is in the Current Budget.
- The Current Forecast did not change this month, although the Construction element did experience an overall increase of \$2.1M. This increase was funded from Project Contingency.
- Expenditure information for March is unavailable.



CONTRACT CHANGE ANALYSIS

- A review of previously issued Contract Changes information has revealed data inconsistencies which are now corrected in the graph presented this period. The sum of Approved and Pending Changes now shows an increase of 15.15% over Contract Award Values, exceeding the current AFE allowance by just over 3%.
- There was no significant change in the value of Approved Changes this period, only a nominal decrease from 5.86% to 5.84%, resulting from a balancing of increased values on Contract C0301 (Hollywood/Highland Station and Tunnels) and Contract C0311 (Line Section from Universal City Station to Station 630+00) and decreased values on Contract C0331 (North Hollywood Tunnel) and other minor changes.
- The value of Pending Changes reduced this period as a result of Contract A650 (Passenger Vehicles Procurement) reported values dropping by approximately \$29M. It appears that certain costs on this contract may have been mis-reported as a Segment 3-North Hollywood Extension potential cost. This reduction more than offsets other adjustments, the most significant being on Contract C0331 which shows a significant upward adjustment of approximately \$2.1M. Contract C0301 also shows a \$190K increase in Pending Changes, and other nominal adjustments being made to Contracts C0301, C0321 (Universal City Station), and C0351 (North Hollywood Station).



SCHEDULE

		Change from Last Month
Current ROD Septemi	ber 2000	0
Design Progress	90%	+0.1%
Construct. Progress	22.1%	+1.8%
Critical Path Float -125	Cal. Days	-5

SCHEDULE ANALYSIS

- Project critical path changed during this period from -120 to -125 calendar days. Forecast project completion date is September 19, 2000, compared to the official ROD date of May 17, 2000. The forecast is within the Full Funding Grant Agreement schedule obligation date of December 2000.
- The additional delay for this period is due to a forecasted later assembly of TBM #2 on Contract C0311 (Line Section from Universal City Station to Station 630+00). Mitigation is likely to be achieved through accelerated testing operations.
- Systems and pre-revenue operation schedules are being reviewed with the expectation of modifying these activities, in part, to recover from the currently forecasted delays.
- Critical path continues to run through Contract C0311 C1610 (Trackwork Installation), B620 (Automatic Train Control), B645 (SCADA) and Testing/Pre-Revenue Operations.

Final Design 1.4 Apr 96 1.2 Apr 96 0.8 0.6 0.4 20% 30% 40% 50% 60% 70% 80% 90% 100% Design % Complete

EMC COST PERFORMANCE ANALYSIS

- Final Design Is approximately 90% 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 has calculated a Forecast at Completion of \$82.3M, not including the cost of work to be transferred from Segment 2 to Segment 3 for B251-related design activities. This represents staff's efforts to contain costs which is lower than EMC's forecast.
- The MTA is working with the EMC to reduce the overall cost forecast by as much as 15% as the project moves fully into construction and requires only limited design services during construction.

ES-4 EXE 10



CONSTRUCTION SAFETY STATISTICS

Project-to-Date Rates		
		Change from
		Last Month
Recordable Injury Rate		
1994 National Average	11.8	
Project Rate	13.0	N/C
Lost Time Rate (Frequency)		
1994 National Average	4.9	
Project Rate	0.3	N/C
Lost Work Days (Severity)		
1991 National Average	148.1	
Project Rate	17.5	-2.1

Segment 3 North Hollywood is averaging over 160,000 work hours per month. (Based on March statistics)

CONSTRUCTION SAFETY SUMMARY

- Segment 3 North Hollywood has completed over 160,000 work hours without a lost time injury.
- Contractor and MTA Construction Safety staff continue a rigorous schedule of meetings and inspections to ensure work site safety.

COMMUNITY ISSUES

HOLLYWOOD/HIGHLAND STATION

• MTA's Public Affairs is investigating the placement of a Public Information Office near Hollywood/Highland.

NORTH HOLLYWOOD STATION

MTA's Public Affairs assisted local merchants with signage and advertising during decking activities at the station site.

RUNYON CANYON

MTA's Public Affairs participated in the Roosevelt Family Day on April 20, 1996.

ES-5



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

- A C0301 Partnering/Teambuilding Session was held on April 16-17, 1996.
- Quality Assurance surveillances on work-in-progress were conducted at C0311 and C0331.
- MTA Quality Assurance completed an audit of the C0351 Contractor, Kajima/Ray Wilson, JV. The audit report will be issued in May.
- MTA Quality Assurance continues to monitor tunnel activities on Contract C0331.
- Partnering Meetings continue on a monthly basis between P-D and JMA.

CONSULTANT CHANGE REQUEST (CCR) BACKLOG STATUS

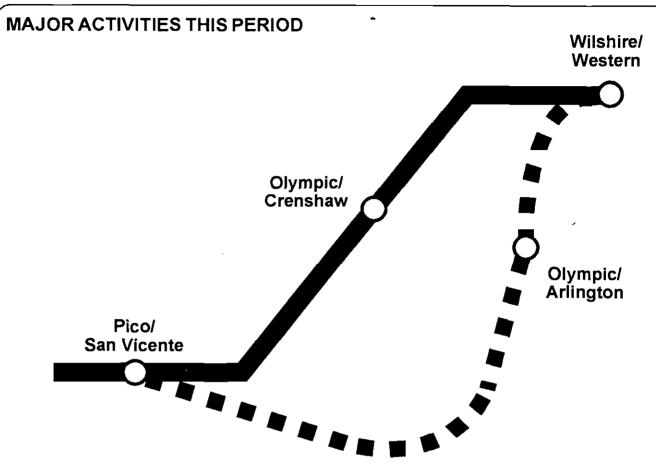
- 19 CCRs are pending approval of the Consultant Change Review Board (CCRB) at an estimated value of \$1,366,145.
- 4 CCRs have been approved by the CCRB for an estimated value of \$568,960.

METRO RED LINE SEGMENT 3
MID-CITY EXTENSION

EXECUTIVE SUMMARY

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



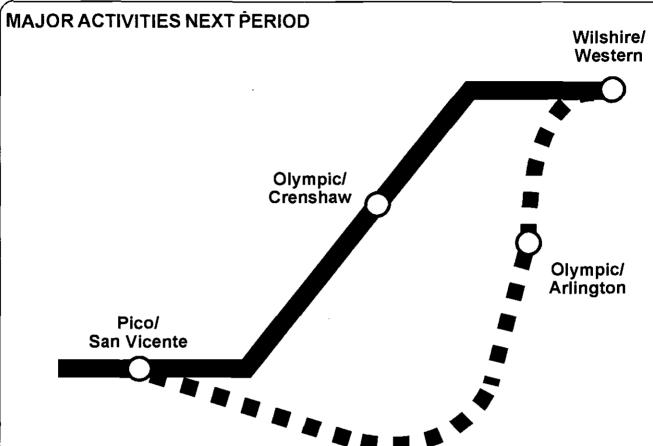


SYSTEMWIDE ACTIVITIES

- The MTA Board approved an engineering feasibility study for a third alternative, a deep bore alignment along Wilton Place/Arlington Avenue.
- The MTA Board approved transfer of \$17,000,000 in Mid-City jointly procured equipment contract commitments to the East Side Extension.

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





SYSTEMWIDE ACTIVITIES

- MTA will authorize and EMC will begin an Engineering Feasibility Study for the alignment along Wilton Place/Arlington Avenue.
- Enviro-Rail will begin geotechnical support for the feasibility study.
- MTA will work with consultants to develop a Wilton Place/Arlington Avenue feasibility study schedule.
- MTA Program Control and Contracts have identified specific items (professional services, OCIP, hazardous materials handling, etc.) and will prepare a comprehensive decommitment plan for MTA Board approval the June 1996 Board meeting.

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



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

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 Critical Path Float N/A None

SCHEDULE ANALYSIS

 A proposal to explore a third alternative was approved by the MTA Board on April 24, 1996. It is anticipated that this study will cause approximately an additional one-year adjustment to the current schedule.

CCR BACKLOG STATUS

- 3 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 \$1,051,574.

SAFETY

No activity for this period.

COMMUNITY ISSUES

No activity for this period.

QA / TQM ISSUES

No activity for this period.

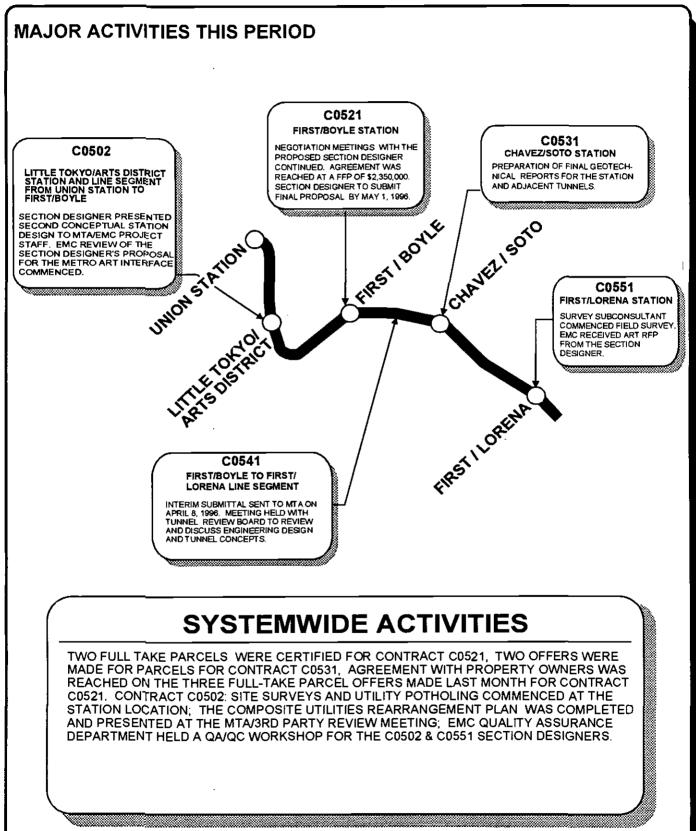
METRO RED LINE SEGMENT 3

EAST SIDE EXTENSION

EXECUTIVE SUMMARY

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

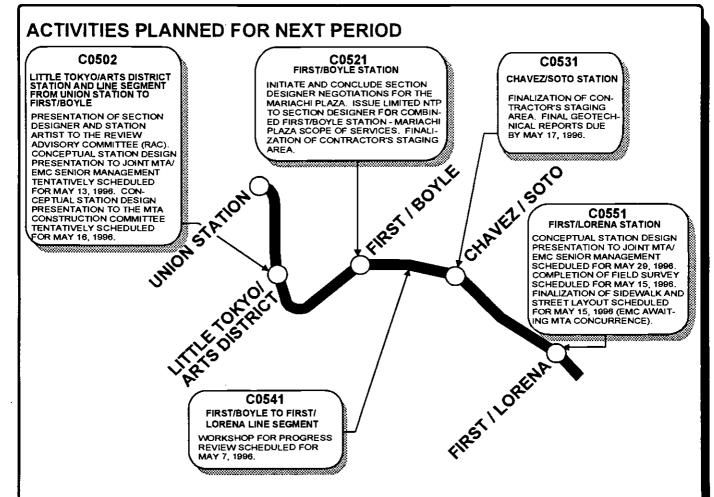




METRO RED LINE - Segment 3 East Side Extension

Summary Status Report Period ending - April 26, 1996





SYSTEMWIDE ACTIVITIES

COMPLETION OF LIST OF PARCELS TO BE CERTIFIED. CERTIFY 30 SUB-SURFACE EASEMENTS FOR CONTRACT C0541 WHICH IS ON THE CRITICAL PATH. EMC TO SUBMIT REVISED PROPOSED AMENDMENT #5 FOR FINAL DESIGN SERVICES. EMC TO REVISE SCOPE OF SERVICES WITHIN PIP INCORPORATING NEW INFORMATION. CONTRACT C0502: FINALIZATION OF EMERGENCY GENERATOR LOCATION (EMC AWAITING MTA CONCURRENCE); FINALIZATION OF STATION APPENDAGE LOCATIONS; COMPLETION OF SITE SURVEYS AND UTILITY POTHOLING; COMPLETION AND ACCEPTANCE OF SECTION DESIGNER CADD PLAN AND QUALITY CONTROL PLAN; FINALIZATION OF CONTRACTOR'S STAGING AREA. CONTRACT C0521: EMC TO BEGIN FINAL DESIGN SERVICES FOR FIRST/BOYLE STATION; FINAL DESIGN KICK-OFF MEETING FOR EMC/SECTION DESIGNER; METRO ART KICK-OFF MEETING FOR MTA/SECTION DESIGNER/STATION ARTIST. CONTRACT C0551: FINALIZATION OF STATION APPENDAGE LOCATIONS SCHEDULED FOR MAY 15, 1996; COMPLETION AND ACCEPTANCE OF SECTION DESIGNER'S CADD PLAN; FINALIZATION OF LOCATION OF CONSTRUCTION STAGING AREAS.

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



BUDGET

	Amount (in \$ mil)	Change from Last Month (in \$ mil)
Original Budget	979.6	None
Approved Budget	979.6	None
Current Forecast	988.1	0

BUDGET ANALYSIS

- During the reporting period, no changes were made to the forecast.
- Cost mitigation measures under review include:

The following measures have an estimated cost savings range of \$2 to \$4 million dollars.

- -Revised Power Distribution System -Floating slab reduction
- Revisions to construction work packaging and sequencing is complete with no budget impact forecasted.
- Expenditure information for March is unavailable.

EMC COST PERFORMANCE

Cost Performance Chart is not applicable at this time, but will be provided at the time a baseline schedule is approved.

EMC COST PERFORMANCE ANALYSIS

The Cost Performance Index baseline is no longer consistent with the original \$48.5M budget due to authorized scope changes incorporated into the work in progress. The revised scope of work is documented in the revised Project Implementation Plan as submitted by the EMC on March 4,1996, which is currently being reviewed by MTA. Once the Final Design Project Implementation Plan is reviewed/ negotiated/approved, the revised baseline will be established and a Cost Performance Chart which accurately reflects the work scope will be included.

METRO RED LINE - Segment 3 East Side

Summary Status Report Period Ending - April 26, 1996



Change from Last Month Current R.O.D. Nov 2002 None Final Design Progress 16.6% 3.7% Construct. Progress N/A N/A Critical Path -319 0 Float

SCHEDULE ANALYSIS

 The forecast R.O.D. is September 2003, or 319 calendar days (228 working days) behind the FFGA scheduled R.O.D. of November 2002 due to delay in full release of Final Design and the delay in the section designers' Notice to Proceed.

Complete recovery of the full 319 days presently seems unlikely.

- Schedule mitigation measures being evaluated include:
 - -Construction/design activity resequencing
 - -Simplified contractor interfaces
 - -Possible second tunnel concreting crew
 - -Possible second fiber optics crew
- Potential mitigations may be negatively offset by changes in tunnel boring technology, continuing identification of additional real estate requirements, etc.
- Complete review of Design and Project Schedules underway by MTA. Interim results forecast for May. Final results expected in June.

CONTRACT CHANGES

SAFETY

No activity for this period.

COMMUNITY ISSUES

• MTA's Public Affairs participated in the Roosevelt Family Day on April 20, 1996.

METRO RED LINE - Segment 3 East Side

Summary Status Report

Period Ending - March 29, 1996



QA / TQM ISSUES

 MTA Quality Assurance submitted revisions to the Resident Engineer Manual to FDI for review and incorporation.

CCR BACKLOG STATUS

- 2 CCR's are pending approval of the CCRB at an estimated value of \$63,000.
- 3 CCR's have been approved by the CCRB for an estimated value of \$362,671.

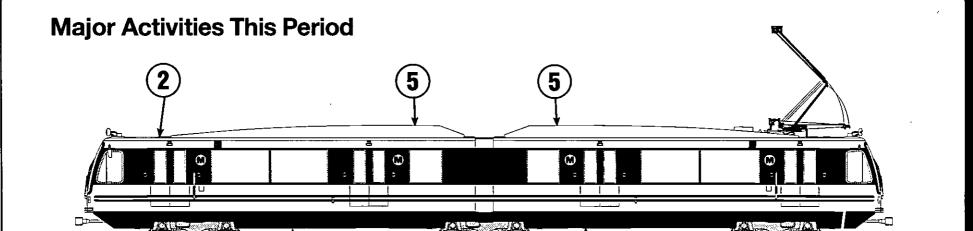
VEHICLE ACQUISITION PROJECT

EXECUTIVE SUMMARY

L.A. Light Rail Vehicle

Summary Status Report Period Ending - April 26, 1996



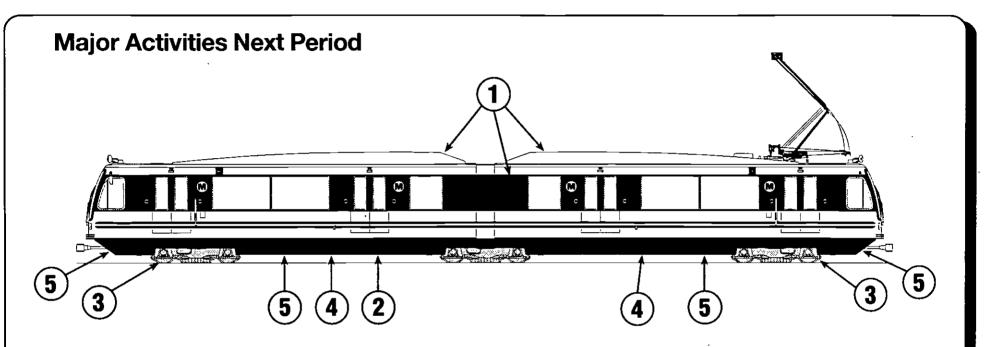


- Evaluation of the Termination Cost Estimates continued. An audit is being scheduled to review the Termination Costs at Siemens Sacramento facility.
- 2. First Article Inspection (FAI) of the car underframe structure and the roof structure were completed.
- 3. Selection of the vehicle delivery method and location to MTA site is under evaluation.
- 4. Vehicle components design and manufacturing of parts, including the first carshell, progressed.
- 5. Finalized Plans for Design Conformance Test and FAI for Auxiliary Power Supply and for Design Review for HVAC unit for May.

L.A. Light Rail Vehicle

Summary Status Report Period Ending - April 26, 1996





- 1. Conduct a Design Review meeting on EMI (Electro Magnetic Interference) detector and the HVAC unit.
- 2. Conduct FAI and Design Conformance Tests on Auxiliary Power Supply, Low Voltage Power Supply/Battery Charger and Batteries.
- 3. Start new Life Cycle Test on the Power Truck Frame after the brake caliper support arm re-design is completed and approved.
- 4. Design Review of the underframe equipment installation will be conducted in May or early June.
- 5. Conduct tests of the floor fire rating and the horn.

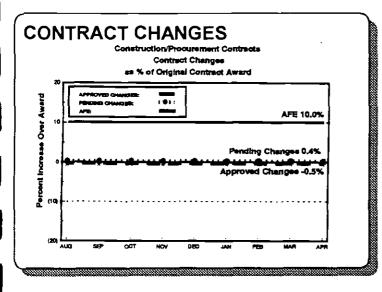
L.A. LIGHT RAIL VEHICLE Summary Status Report Period ending - April 26, 1996



Change from Amount Last Month (in \$ mil) (in \$ mil) Original Budget 257.6 -0 Approved Budget 257.6 -0 Current Forecast 201.4 -0-

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 April 1996 are as follows:

Approved Changes(0.5	%)
Pending Changes 0.0	4%
AFE 1	0%

SCHEDULE		
	Change from	
	<u>Last Month</u>	
Schedule Car Deliver	У	
1st Car	July 1997	+17 Days
52nd Car	Oct. 1998	+33 Days
Design Progress	90-95% complete	+5%
Fabrication Progress	25-30% complete	N/C
Critical Path	Carshell delivery	N/C
Delay (1st Car)	-7.5 months	+17 Days
Data Date	April 1, 1996	
(

SCHEDULE ANALYSIS

Contractor's last forecast schedule reflected a total of seven and one half 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.

In the January and February schedule, STS has assumed that the MTA can accept cars at a higher rate than specified (2 cars per month).

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



SAFETY

COMMUNITY ISSUES

• No activity for this period.

QA / TQM ISSUES

- An audit of the Siemens Manufacturing Facility in Carson will be conducted by STS, Inc. in May to review compliance with major components of their quality system.
- STS Quality Assurance procedures and routing instructions for work are under review by LTK. Material identification and nonconformance reporting are being reviewed with STS for corrective action.
- The STS Quality Assurance Manual is under review to determine conformity with previously approved requirements.
- Underframe and Roof First Article Inspections were conducted. Open issues were transmitted to STS for resolution.
- STS subcontractor Quality Assurance manuals are under review.
- The LTK inspector conducted close inspection fit-ups and welding of the center truck frames. Close monitoring of these activities will continue.
- LTK conducted a Quality Assurance program audit of Adtranz, the propulsion system supplier.

CCR BACKLOG STATUS

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