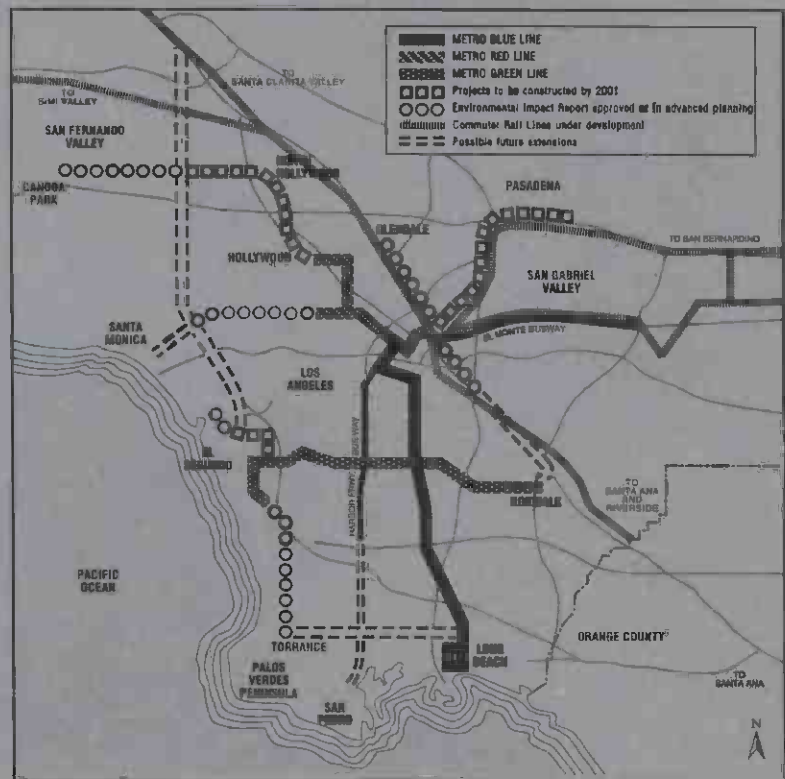


RAIL CONSTRUCTION CORPORATION



Executive Management Status Report



**Rail
Construction
Corporation**

A Subsidiary of
the Los Angeles County
Transportation Commission

RAIL PROGRAM SUMMARY STATUS

RAIL PROGRAM STATUS SUMMARY

PROGRAM BUDGET AND FORECAST

The rail design and construction program currently consists of four individual projects with a combined budget of \$4,257,000,000 and a combined current forecast of \$4,276,000,000, approximately 0.5 % over budget. These projects include the Metro Blue Line, the Metro Green Line and the Metro Red Line, MOS-1 and MOS-2. The Metro Blue Line consists of a Light Rail portion (budgeted at \$846,949,000) and a railroad freight diversion portion known as MC-5 (budgeted at \$30,322,000) for a total Blue Line budget of \$877,271,000. Metro Red Line MOS-1 and MOS-2 budgets are \$1,353,900,000 and \$1,446,000,000, respectively. The variance is due entirely to the Metro Green Line, which has a "planning budget" of \$580,000,000 versus a current forecast of \$599,000,000. To date, there is no officially adopted budget for the Green Line; action to establish a budget was considered at the Commission's meeting of September 22, 1990 and was deferred. Action to adopt a budget of \$599,000,000 is expected in October.

In addition to the approved design and construction program, the North Coast Line from the Green Line Aviation "Y" to Westchester Station is being considered for formal approval and transfer to the RCC for design and construction. The budget for this project will be set for \$215,000,000. It includes only two (2) rail vehicles and excludes the full maintenance yard at the Hawthorne site.

Well over 1600 construction change notices have been received to date for the Red Line, MOS-1. To date dollar value of executed change orders for MOS-1 exceeds \$45,000,000 and the backlog of unresolved changes is increasing slightly over the last few months. The number of outstanding change notices over 30 days old has basically held steady since early July at around 75. No change notices have been received to date for the MOS-2 segment (no construction activity is underway) and only minor changes activity has occurred on the Green Line. Those which have been received for the Green Line relate to Caltrans contracts for the freeway which include portions of the Light Rail facilities. Blue Line Change Orders executed to date exceed \$47,000,000 with a current backlog of 369 outstanding change notices. Over 1800 construction change notices have been received to date.

A program summary cost report (Figure 1) shows a more complete cost status of the program. This summary report includes only the active design and construction projects and does not consider the North Coast Line at this time.

RAIL CONSTRUCTION CORPORATION
PROGRAM COST REPORT - TOTAL RAIL PROGRAM
SUMMARY BY COST ELEMENT

REPORT DATE: 10/10/90
STATUS DATE: 09/30/90

(IN THOUSANDS)

PROJECT: R01,R23,R80,R81 TOTAL RAIL PROGRAM	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	BUDGET		AUTHORIZED FOR EXPENDITURE		COMMITMENTS		INCURRED COST		EXPENDITURES		FORECAST	
DESCRIPTION	ORIGINAL	CURRENT	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	CURRENT	(11-2) VARIANCE
CONSTRUCTION	2,472,445	2,594,194	2,320	771,826	3,463	1,170,572	10,319	940,291	9,936	922,594	2,618,454	24,260
PROFESSIONAL SERVICES	910,051	1,011,730	0	239,898	2,144	615,946	1,381	571,320	3,904	569,271	1,033,911	22,181
REAL ESTATE	236,037	290,465	0	71,997	6,436	183,445	3,936	174,945	6,922	176,881	307,607	17,142
UTILITY/AGENCY FORCE ACCOUNTS	112,120	104,816	576	49,763	0	65,540	50	56,156	(50)	60,864	105,565	749
SPECIAL PROGRAMS	3,168	9,322	0	508	0	753	0	249	0	169	11,852	2,530
PROJECT RESERVE	316,072	278,223	0	0	0	0	0	0	0	0	238,240	(39,983)
PROJECT REVENUE	(3,117)	(31,505)	0	0	0	(420)	(21)	(1,506)	(21)	(3,200)	(39,113)	(7,608)
GRAND TOTAL PROJECTS	4,046,776	4,257,245	2,896	1,133,992	12,043	2,035,836	15,665	1,741,455	20,691	1,726,579	4,276,516	19,271

Figure 1

PROGRAM CASH FLOW

Through September 1990, total program expenditures for active projects is approximately \$1,727,000,000 (or about 40%) of the total forecast for the approved program compared to the total program planned expenditures of about \$ 1,815,000,000. Expenditures to date fall short of the plan by about \$88,000,000.

Figure 2 illustrates the major project objectives and attendant cash requirements through completion of the approved projects. This rail construction plan is based on the total cost forecast for each project.

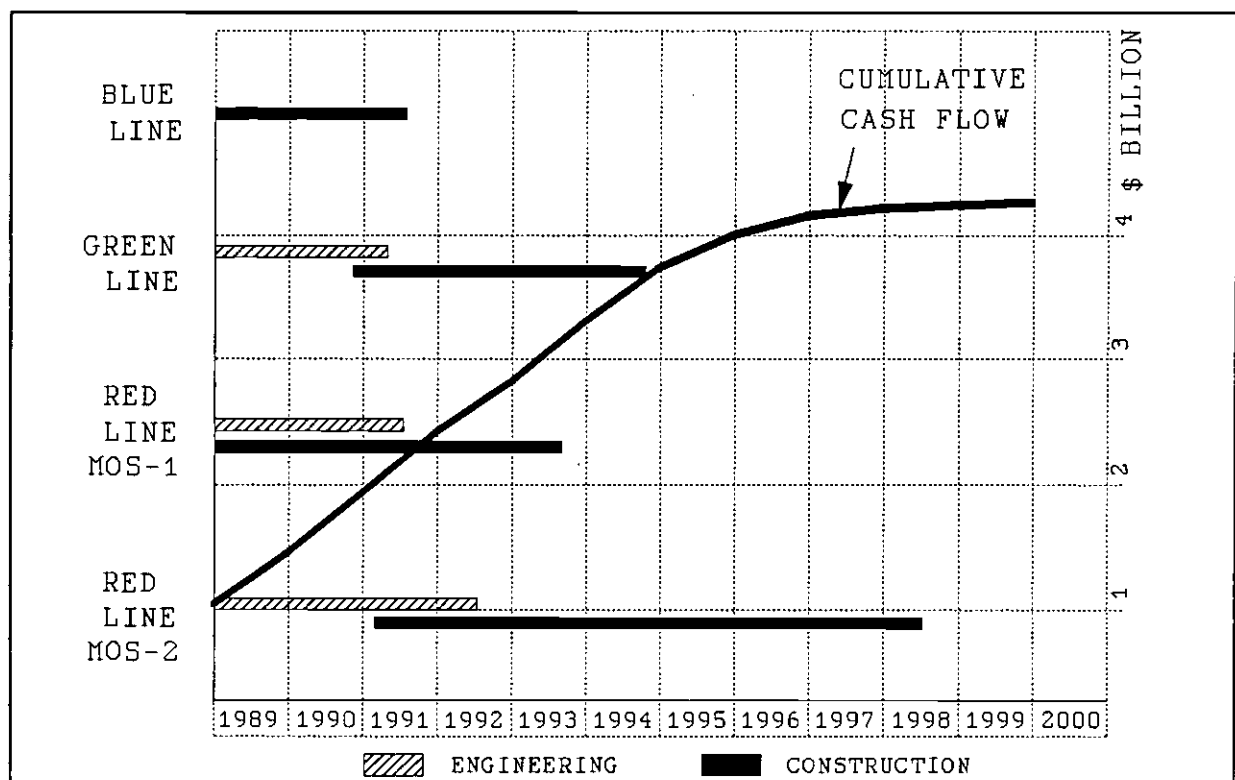


Figure 2 - Rail Construction Plan

Figure 3 illustrates and tabulates the funding sources for each project and for the total program. Data included in this figure is based on the current forecast total cost of each project.

BASED ON PROJECT COST FORECASTS (DOLLARS IN THOUSANDS)										
	BLUE LINE R01		GREEN LN R23		RED LINE R80 (MOS-1)		RED LINE R81 (MOS-2)		TOTAL PROGRAM	
	\$	%	\$	%	\$	%	\$	%	\$	%
UMTA					696	51	667	46	1363	32
STATE					214	16	185	13	399	9
LOCAL (PROP A)	877	100	599	100	228	17	440	30	2144	50
BENEFIT ASSESS.					130	10	58	4	188	5
CITY OF L.A.					86	6	96	7	182	4
OTHER					—		—			
TOTAL	877*		599		1354**		1446		4276	

* INCLUDES BLUE LINE (\$847) PLUS MC-5 WORK (\$30)
** LRT PORTION INCLUDED IN BLUE LINE (R01) FORECAST

Figure 3 - Rail Construction Funding Sources

Figure 3A is a pie chart representation of the funding sources for the total program. Local funding (Proposition A) will pay for half of the entire program.

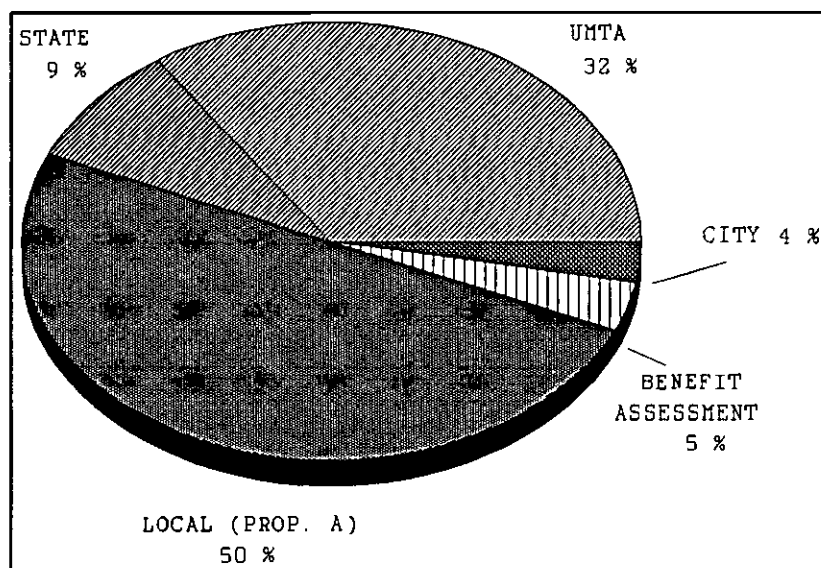


Figure 3A - Funding Source Pie Chart

PROGRAM SCHEDULE

The Metro Blue Line has been in limited operation since July 14, 1990 with a secondary opening in the Long Beach downtown area on September 1, well ahead of the December 1990 scheduled date. The scheduled Revenue Operations Date for the remaining portion (Seventh and Flower station to Pico Station) is June 30, 1991. Current schedule forecasts indicate that a much earlier opening date than June 30, 1991 is realistic. Over the next several weeks, a more detailed assessment will be concluded which will lead to establishment and announcement of a new opening date by RCC executive management.

The Metro Green Line is currently scheduled for Revenue Operations in October 1994. Current status indicates that the project is now about 90 days behind schedule. Construction workarounds and additional contract milestone dates relative to the Kramer Bridge contract have been identified and are being analyzed by O'Brien-Kreitzberg. These are expected to offset the entire 90 days. Issues with the Southern California Edison Company (SCE) in the area of the Kramer property, delays in award of the utility relocation and foundation contract, and continuing delays in completion of civil and systems design packages are the prime contributors. Presently, issues involving the SCE are being presented to the RCC Board of Directors for resolution.

The Metro Red Line, MOS-1 is scheduled to begin Revenue Operations in September, 1993. The critical path for this project involves completion of all trackbed area work in stations and tunnels to allow trackwork access. This remains an achievable schedule. Studies are currently underway to determine if an earlier opening date is realistic.

The Wilshire Segment of the Metro Red Line, MOS-2 is on target for Revenue Operations in July 1996, with the Vermont Segment scheduled for opening in September 1998. No impacts to these dates are presently seen.

Figure 4 is a listing of key events for all projects scheduled over the next twelve (12) months and is intended as a planning guide only. During October, two (2) 100 % design submittals and six (6) camera ready submittals are expected, in addition to two (2) contract notices to proceed. Similar data for each project is included in the project sections of this report.

1 YEAR OUTLOOK

PROJECT SCHEDULE STATUS / KEY EVENTS
TOTAL PROGRAM

90/91

DATA DATE: 27 JUL 90

	AUG 90	SEP	OCT	NOV	DEC	JAN 91	FEB	MAR	APR	MAY	JUN	JUL
60% Design Submittal				1		1			2		1	
85% Design Submittal				1				1		1		1
100% Design Submittal	1	3	2	2	3	4	1					1
TOTAL	1	3	2	4	3	5	1	1	2	1	1	2
CR Camera Ready	2	2	6	2	5	2	4					
AD Advertise	4	2	2	2	2	6	1	2	1		1	
BD Bid Due	2	2	3	1		2	2	2	1		1	
AW Award	1	2	1	2	4	4	2	1	5	4		
RE Real Estate					2				2	3		
NTP Notice to Proc.		1	2	1	4	6		3	2	5	3	
MFG Manufacturing												
SD Delivery Start												
FD Delivery Finish												
VT Vehicle Testing												
VA Vehicle Arrival												
LIQ Liquid. Milest.	2		1	2				1	2	1	2	
INT Interfc. Milest.												
CC Contract Complt.			3		1	1	2	2	2	1	2	3

NOTE: 1.) REPORT REFLECTS ONLY CONTRACT PACKAGES FOR MAJOR SYSTEMS.

Figure 4

REAL ESTATE ACQUISITIONS

To date, six hundred and fifteen (615) real estate parcels have been identified as required for the total program. Of this total, one hundred and forty two are not yet available for construction. The lack of real estate may impact the notice to proceed date for the critical utility relocation and foundations contract on the Metro Green Line. Potential may also exist on the Metro Red Line, MOS-2 for contracting delays due to lack of real estate acquisitions in some of the station areas of the project. Figure 5 summarizes the real estate status for each project.

REAL ESTATE - STATUS SUMMARY TOTAL							
PROJECT	NO. OF PARCELS	NUMBER CERT'D	JUST COMP APPROVED	OFFERS MADE	CONDEM- NATION	PARCELS AVAIL	PARCELS NOT AVAIL
BLUE	423	229	157	259	23	370	53
GREEN	32	32	11	10	3	8	24
MOS-1	94	94	94	94	22	94	0
MOS-2	66	28	4	5	2	1	65
TOTAL	615	383	266	368	50	473	142

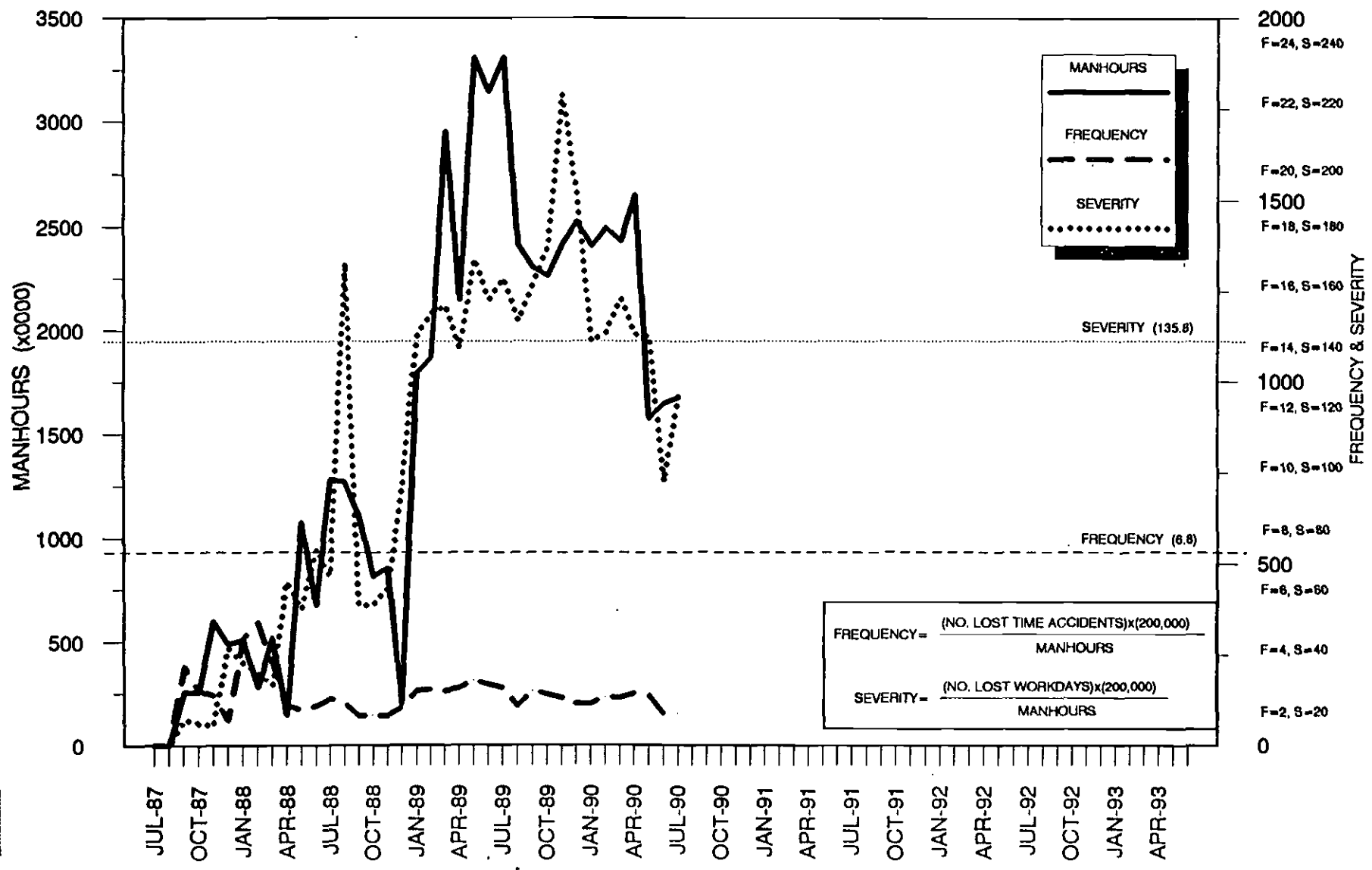
Figure 5 - Real Estate Acquisition Status Summary

CONSTRUCTION SAFETY

The combined Construction safety reports for the Metro Blue Line and the Metro Red Line (MOS-1) is shown on the following page. The individual reports are shown in their respective project summary.

CONSOLIDATED PROJECTS
MANHOURS & FREQUENCY, SEVERITY RATES

Page 9



RAIL CONSTRUCTION CORPORATION STAFF DEVELOPMENT

Authorized staff level for the RCC is one hundred twenty seven (127). Presently, sixty-eight (68) positions are filled with regular full time staff and thirty nine (39) positions are filled with acting, contract, or temporary employees. Thus, one hundred seven (107) positions, or 84% of the authorized positions are filled. Active recruitment continues for the remaining positions. Staff levels beginning July 1, 1990 are illustrated in Figure 6.

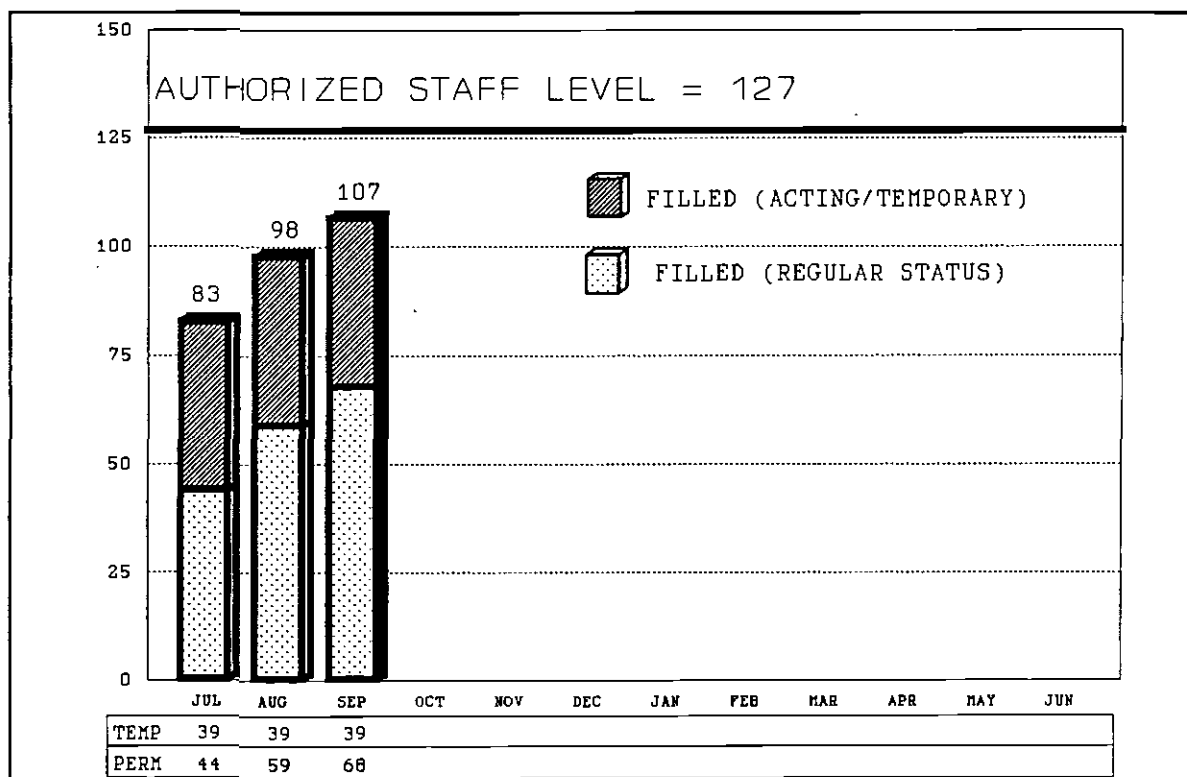


Figure 6 - RCC Staff Levels

CORPORATE COST TARGETS RELATIVE TO CONSTRUCTION

The corporate goals of the RCC include limitations on the percentage of total project costs which will be spent on project administration and on RCC/LACTC staff. Based on the current cost forecast data for each project, the project administration cost totals 24 %, which exceeds the goal of 20 % maximum. The prime reason for this apparent overrun is the MOS-1 project with a forecast total project administration cost of 33 % of the total project. The percentage includes all costs previously expended by the SCRTD when the project was under SCRTD management. Future issues of this report will include comparisons of the project administration costs before and after the management change.

Staff costs are projected to total 4 % of total program costs, exactly the corporate goal. Figure 6 illustrates the forecast figures for each project and for total program.

COST PERFORMANCE RELATIVE TO CORPORATE GOALS
IN THOUSANDS

	METRO BLUE LINE R01		METRO GREEN LINE R23		METRO RED LINE (MOS-1)		METRO RED LINE (MOS-2)		PROJECT TOTALS		CORPORATE
	DOLLARS	PERCENT	DOLLARS	PERCENT	DOLLARS	PERCENT	DOLLARS	PERCENT	DOLLARS	PERCENT	GOAL
CONSTRUCTION	656,237	75%	403,494	67%	719,989	53%	946,291	65%	2,726,011	64%	
RIGHT-OF-WAY	55,591	6%	35,096	6%	140,186	10%	77,735	5%	308,608	7%	
SERVICES:											
ENGINEERING/DESIGN	72,907	8%	49,258	8%	216,846	16%	118,884	8%	457,895	11%	
CONSTRUCTION MGMT.	88,322	10%	35,877	6%	114,737	8%	111,541	8%	350,477	8%	
STAFF	17,655	2%	19,760	3%	102,129	8%	40,042	3%	179,586	4%	4%
OTHER	14,223	2%	5,830	1%	18,636	1%	16,123	1%	54,812	1%	
SUBTOTAL	193,107	22%	110,725	18%	452,348	33%	286,590	20%	1,042,770	24%	20%
REVENUE	2,213	0%	(9,236)	-2%	0	0%	0	0%	(7,023)	-0%	
RESERVE	(29,877)	-3%	58,834	10%	41,377	3%	135,816	9%	206,150	5%	
GRAND TOTAL	877,271	100%	598,913	100%	1,353,900	100%	1,446,432	100%	4,276,516	100%	

Figure 7

INVOICE PROCESSING

Figure 8 illustrates the average time to payment by RCC for contractor invoices. To smooth the irregularities of weekly processing of invoices, four (4) week moving averages have been used for this chart. Week to week variances or short term variances in this average should not be cause for concern; the overall trend, however, will be closely monitored as a measure of LACTC/RCC responsiveness to contractor invoices.

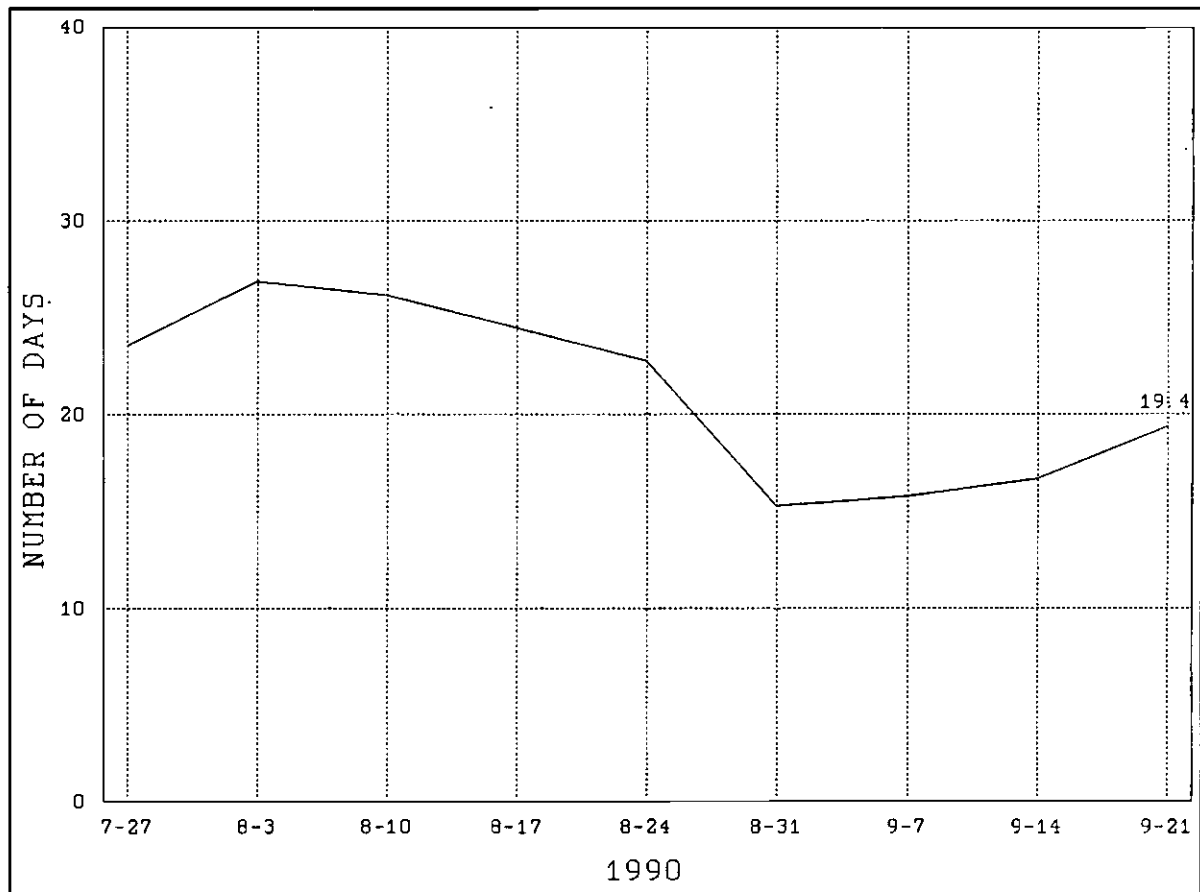


Figure 8 - Average Days to Invoice Payment
(4 week moving average)

EXECUTIVE SUMMARY

PROJECT COST

The current Project Budget is \$877,271,000 which was approved by the Commission in July, 1990. The current forecast is \$877,271,000 as recognized by TRANSCAL. This figure includes the MC-5 contracts valued at \$30,322,000.

Costs totalling \$738,822,209 (84% of the budget) have been incurred to date and \$799,625,000 (91% of the budget) has been committed during the same time period

PROJECT SCHEDULE

Construction progress through September 1990 was measured at 98.3 % compared to the planned progress of 98.3%. Status of the three planned Revenue Operations Dates is as follows:

PICO TO ANAHEIM

The July 14, 1990 opening occurred on schedule. Work continues to retrofit TPSS and SCADA interface to the TPSS. This work should be completed by October 19, 1990.

LONG BEACH LOOP

The scheduled Revenue Operation Date of December 1990 was bettered by nearly four months as the Loop was opened over the Labor Day weekend (September 1, 1990). SCADA predictor interface software has been installed and is currently being tested. The Long Beach Landscaping Contract (C355) has been awarded.

SEVENTH AND FLOWER

Systems work in the tunnel has been delayed due to access problems in an equipment room. The deficiency has been corrected and TRANSCAL has accelerated its subcontractors to beat the Revenue Operations Date of June 1991. Work in this area is currently two weeks behind schedule due to Red Line contracts which interface with TRANSCAL systems work. The Traction Power Substations contractor (H811) and the Overhead Contact Systems contractor are essentially complete with their work in the tunnel and the Transit Signalling contractor (H825) is nearing completion.

The Cable Transmission System contract (H832) cannot be completed until Red Line work is finished. TRANSCAL continues to perform its work on the heels of the Red Line work to minimize any potential schedule impacts.

AREAS OF CONCERN

1. **Seventh and Flower Delays**

Concern: Access delays due to Red Line contracts A165/A167 prevented Blue Line Systems contracts from mobilizing in the tunnel on schedule. Work around plans have been implemented including acceleration of the Transit Signalling (H825) and Cable Transmission System (H832) contractors to meet the original schedule. Work in the tunnel continues to lag but, the station will be open for revenue service prior to the June 1991 scheduled Revenue Operations Date.

Action: TRANSCAL moved its Area Manager, Pete Locatelli, to assist in resolving those issues which are impacting schedule recovery. He is interfacing between the civil and systems contractors in order to phase the work as efficiently as possible. Based on the latest schedule review, the Cable Transmission System contract (H832) has an increased scope of work added (optical fiber installation for the Red Line) and could be delayed significantly if the associated Red Line work is not accelerated.

2. **Cost Growth In the SCADA, Cable Transmission System, and Safety, Security, Communication Systems (SS&CS) Contracts.**

Concern: Due to delays associated with the Seventh and Flower work, the Blue Line Systems contracts are experiencing an unexpected level of cost growth.

Action: TRANSCAL will convene weekly cost status meetings with the Resident Engineer for these contracts and will more closely identify the growth as a function of the delayed access experienced in the tunnel. We will maintain our objective of holding to the \$877,271,000 forecast.

RAIL CONSTRUCTION CORPORATION
PROJECT COST REPORT - METRO BLUE LINE
SUMMARY BY COST ELEMENT

REPORT DATE: 10/10/90
STATUS DATE: 09/30/90

(IN THOUSANDS)

PROJECT: R01 METRO BLUE LINE	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	BUDGET		AUTHORIZED FOR EXPENDITURE		COMMITMENTS		INCURRED COST		EXPENDITURES		FORECAST	
DESCRIPTION	ORIGINAL	CURRENT	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	CURRENT	(11-2) VARIANCE
CONSTRUCTION	496,644	608,859	2,320	556,759	2,622	526,594	2,023	471,846	1,848	474,621	608,859	0
PROFESSIONAL SERVICES	121,494	186,778	0	164,820	0	170,937	0	170,934	0	168,691	186,778	0
REAL ESTATE	39,847	55,591	0	49,463	0	50,386	0	50,099	0	48,803	55,591	0
UTILITY/AGENCY FORCE ACCOUNTS	50,177	47,378	576	44,434	0	51,248	0	47,215	0	46,334	47,378	0
SPECIAL PROGRAMS	0	6,329	0	0	0	0	0	0	0	0	6,329	0
PROJECT RESERVE	64,129	2,213	0	0	0	0	0	0	0	0	2,213	0
PROJECT REVENUE	(1,489)	(29,877)	0	0	0	460	0	(1,272)	0	(1,272)	(29,877)	0
GRAND TOTAL PROJECT	770,802	877,271	2,896	815,476	2,622	799,625	2,023	738,822	1,848	737,177	877,271	0

RAIL CONSTRUCTION CORPORATION
PROJECT COST REPORT - METRO BLUE LINE
(LIGHT RAIL PORTION)
SUMMARY BY COST ELEMENT
(IN THOUSANDS)

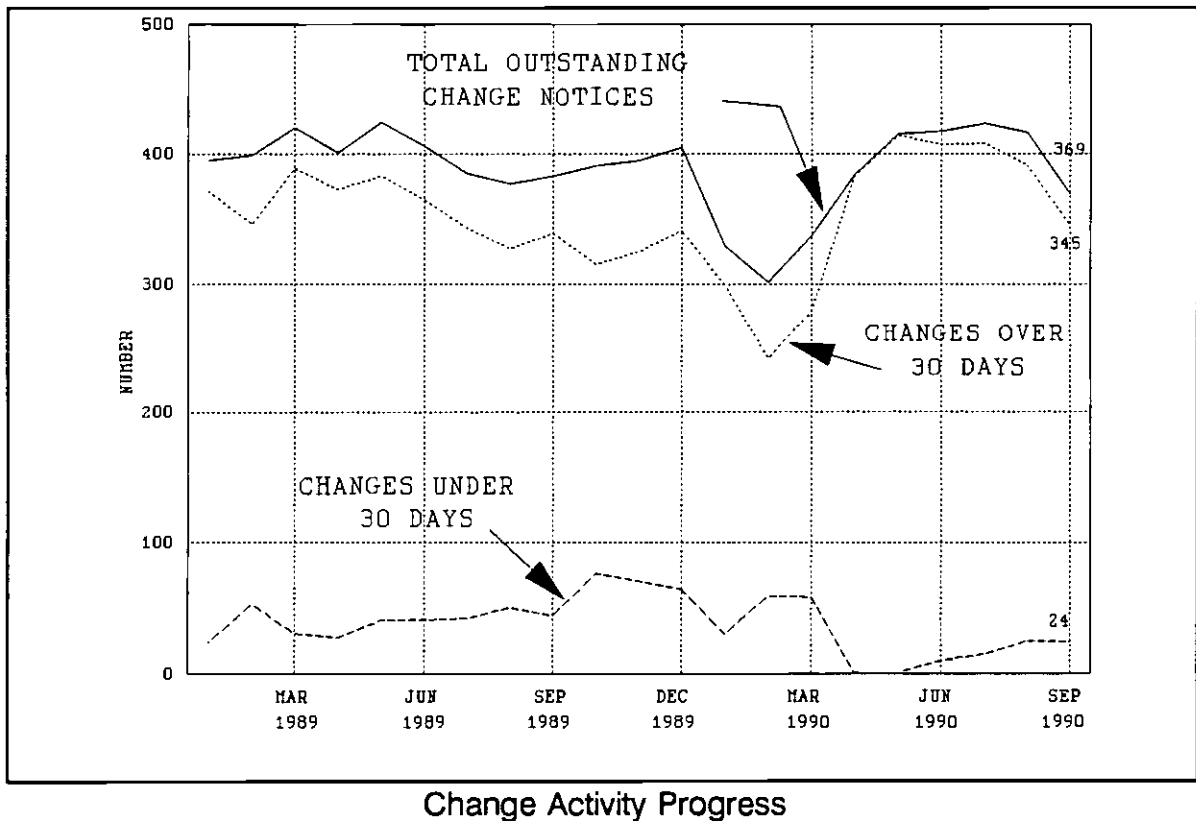
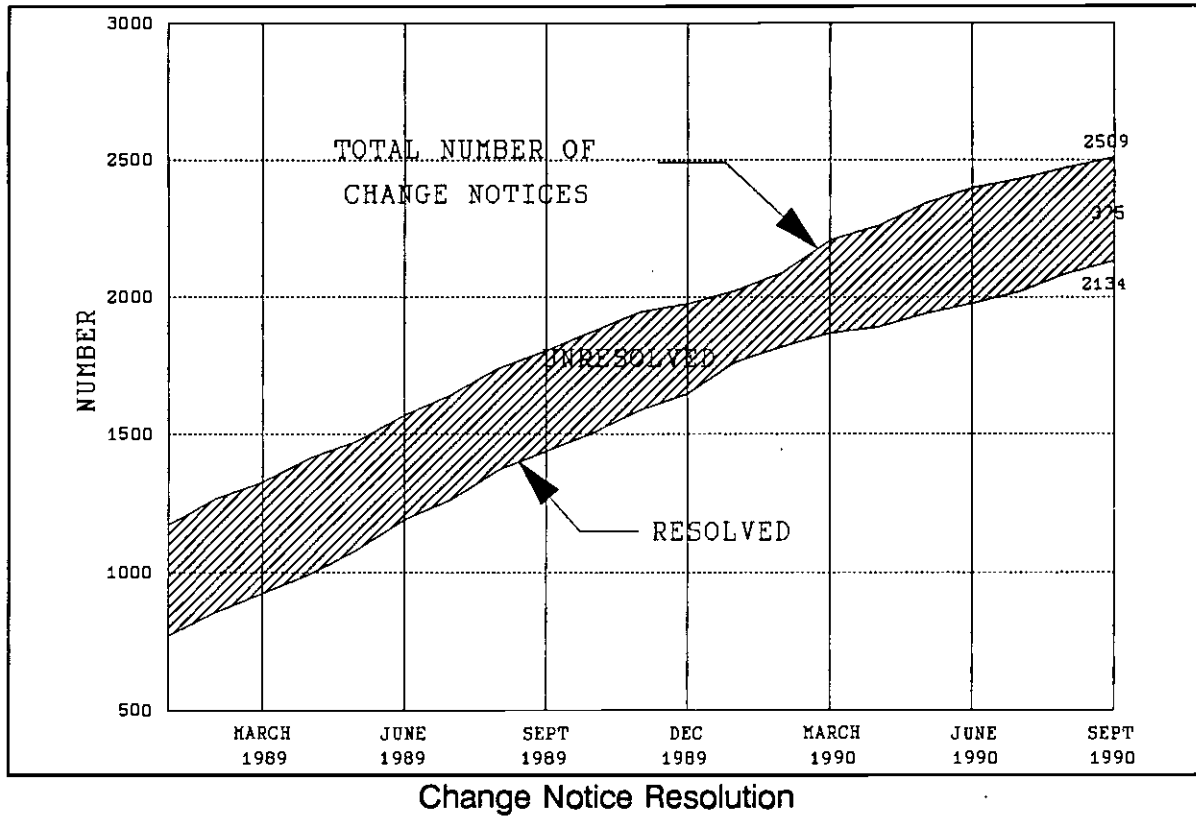
REPORT DATE: 10/10/90
STATUS DATE: 09/30/90

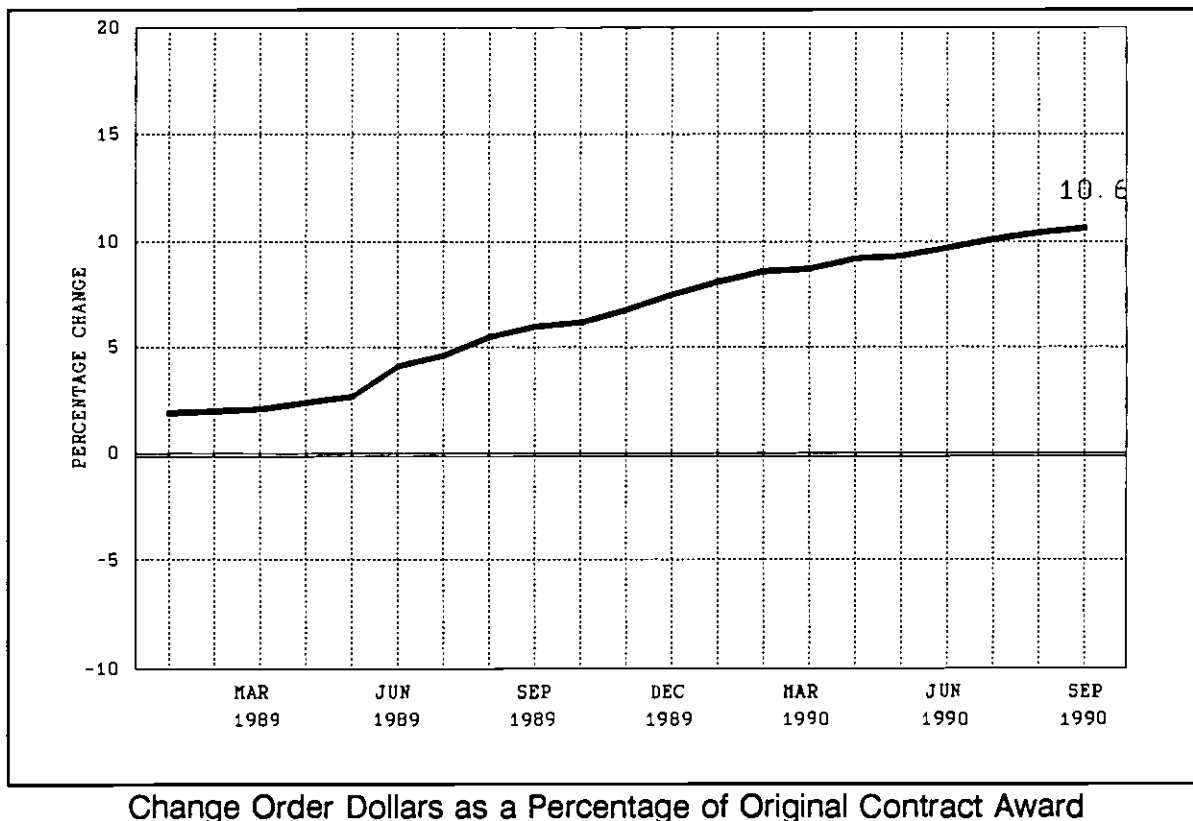
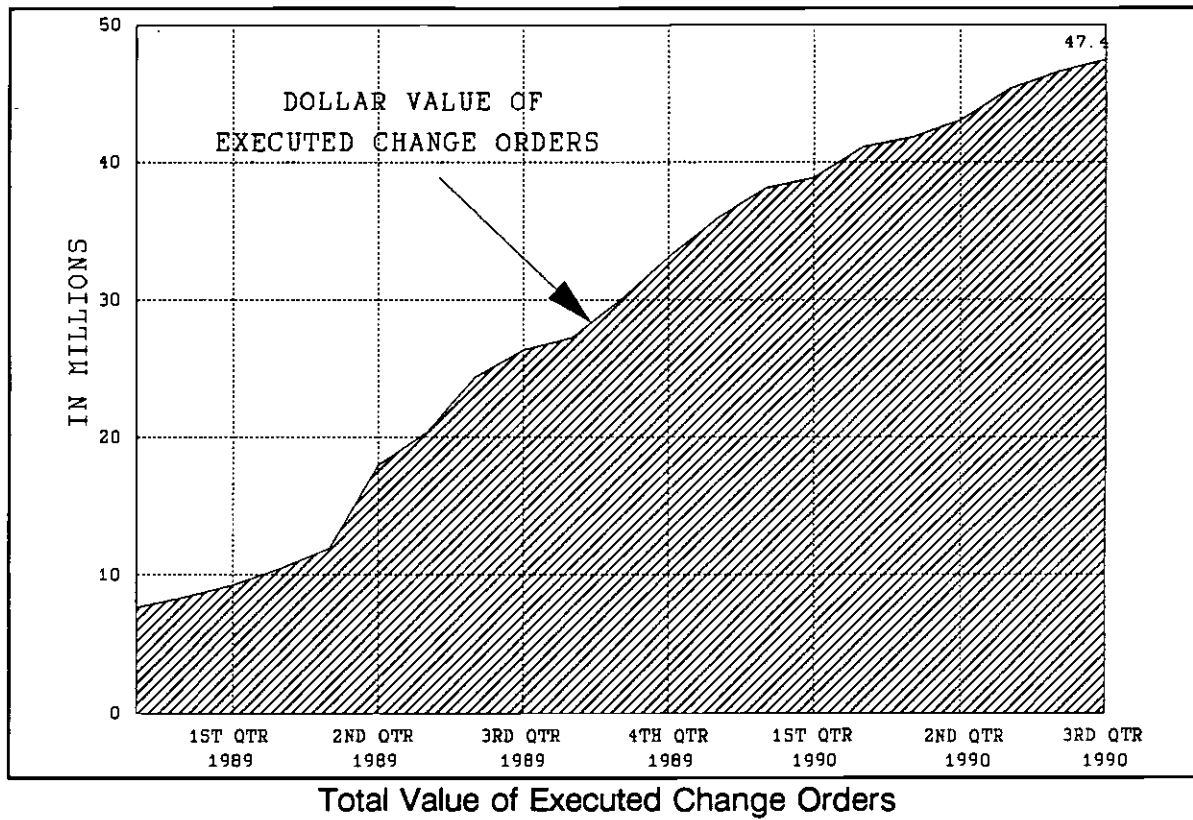
PROJECT: R01 METRO BLUE LINE	(1) BUDGET	(2)	(3) AUTHORIZED FOR EXPENDITURE	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
DESCRIPTION	ORIGINAL	CURRENT	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	CURRENT	(11-2) VARIANCE
CONSTRUCTION	496,644	578,894	0	554,439	124	524,096	175	469,998	0	472,772	578,894	0
PROFESSIONAL SERVICES	121,494	183,458	0	164,820	0	170,937	0	170,935	0	168,691	183,458	0
REAL ESTATE	39,847	52,065	0	49,463	0	50,386	0	50,099	0	48,805	52,065	0
UTILITY/AGENCY FORCE ACCOUNTS	50,177	47,378	576	44,434	0	51,248	0	47,215	0	46,334	47,378	0
SPECIAL PROGRAMS	0	2,728	0	0	0	0	0	0	0	0	2,728	0
PROJECT RESERVE	64,129	1,713	0	0	0	0	0	0	0	0	1,713	0
PROJECT REVENUE	(1,489)	(19,287)	0	0	0	460	0	(1,272)	0	(1,272)	(19,287)	0
GRAND TOTAL PROJECT	770,802	846,949	576	813,156	124	797,127	175	736,975	0	735,330	846,949	0

RAIL CONSTRUCTION CORPORATION
PROJECT COST REPORT - METRO BLUE LINE
(MCS PORTION)
SUMMARY BY COST ELEMENT
(IN THOUSANDS)

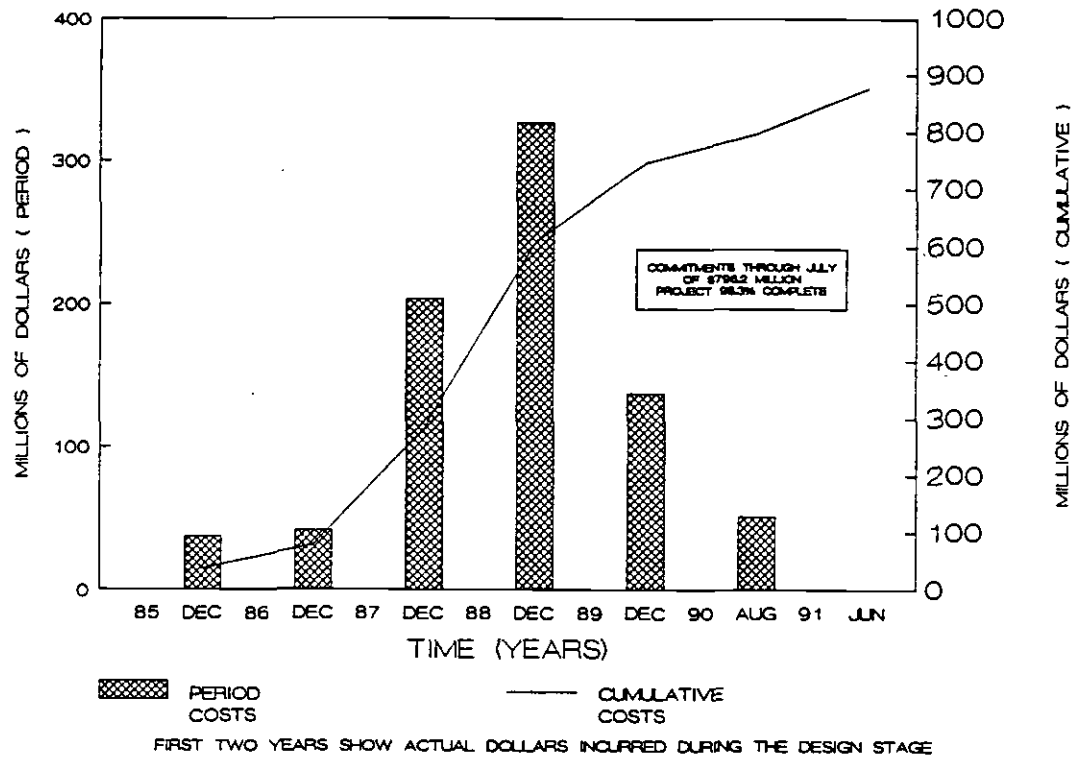
REPORT DATE: 10/10/90
STATUS DATE: 09/30/90

PROJECT: RH1 MCS RR RELOC.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	BUDGET		AUTHORIZED FOR EXPENDITURE		COMMITMENTS		INCURRED COST		EXPENDITURES		FORECAST	
DESCRIPTION	ORIGINAL	CURRENT	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	CURRENT	(11-2) VARIANCE
CONSTRUCTION	0	29,965	2,320	2,320	2,498	2,498	1,848	1,848	1,848	1,848	29,965	0
PROFESSIONAL SERVICES	0	3,320	0	0	0	0	0	0	0	0	3,320	0
REAL ESTATE	0	3,527	0	0	0	0	0	0	0	0	3,527	0
UTILITY/AGENCY FORCE ACCOUNTS	0	0	0	0	0	0	0	0	0	0	0	0
SPECIAL PROGRAMS	0	3,600	0	0	0	0	0	0	0	0	3,600	0
PROJECT RESERVE	0	500	0	0	0	0	0	0	0	0	500	0
PROJECT REVENUE	0	(10,590)	0	0	0	0	0	0	0	0	(10,590)	0
GRAND TOTAL PROJECT	0	30,322	2,320	2,320	2,498	2,498	1,848	1,848	1,848	1,848	30,322	0

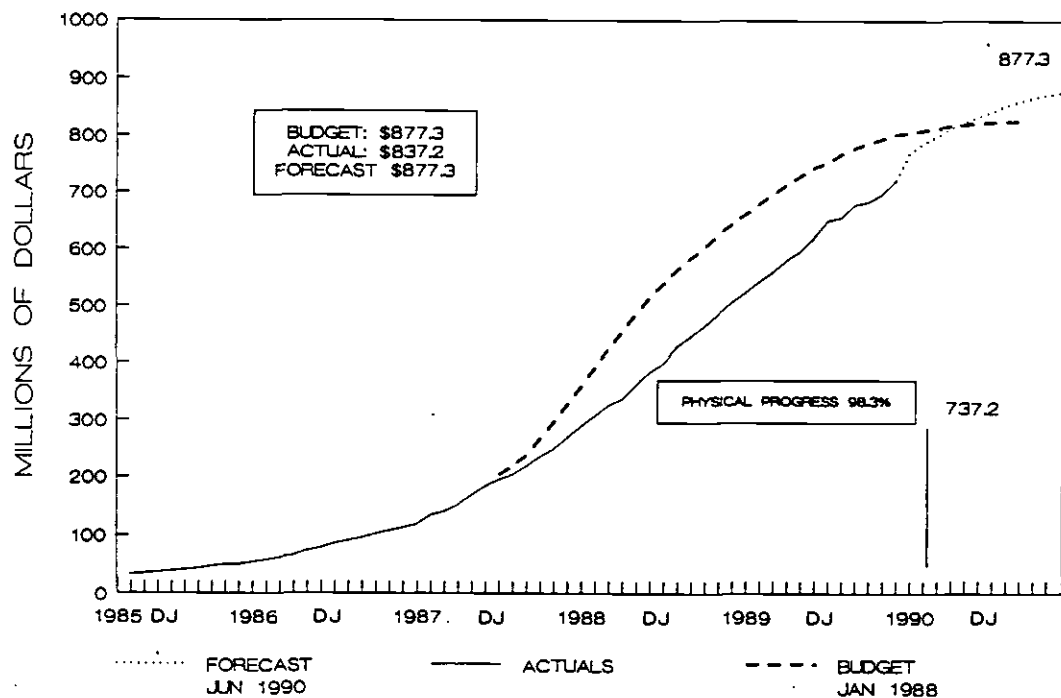


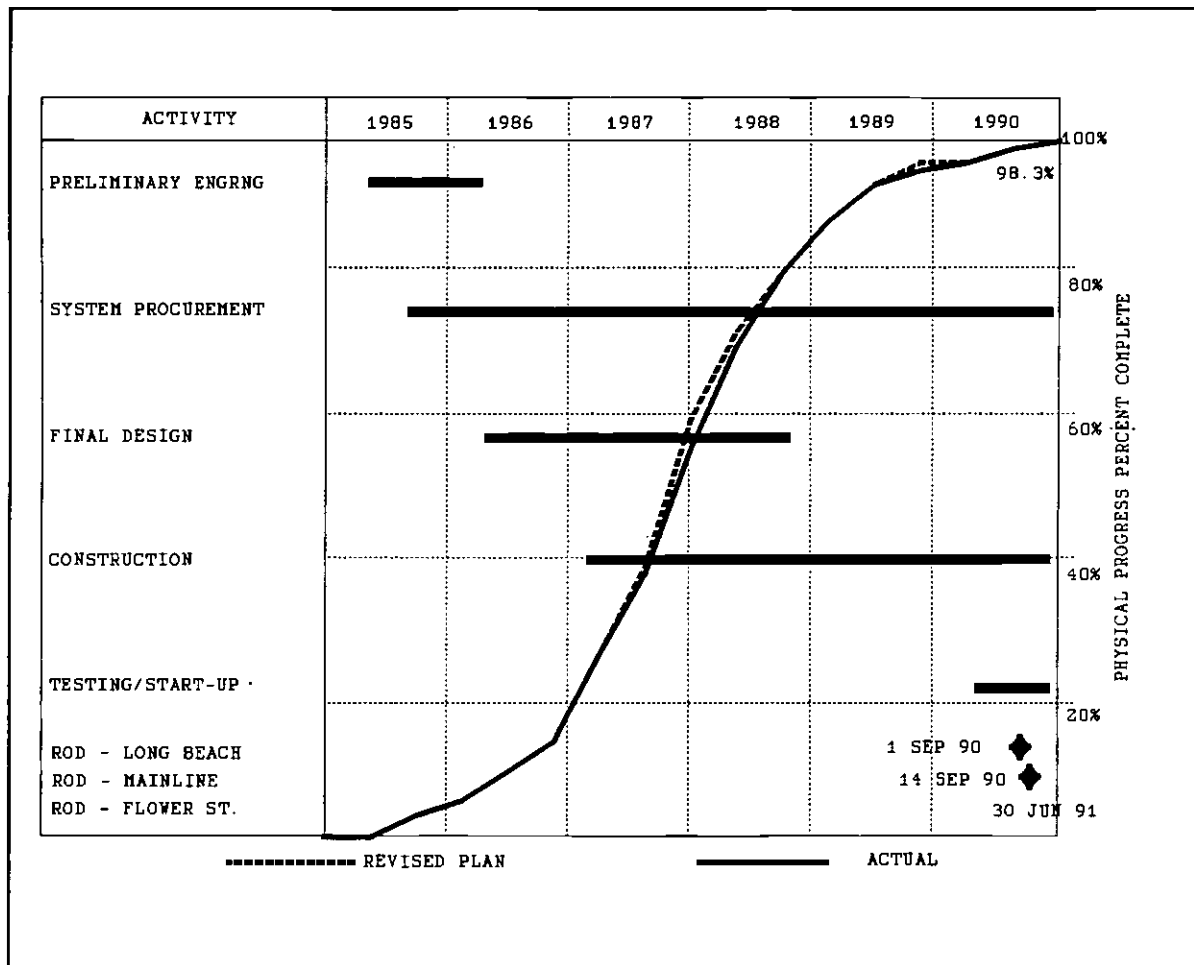


METRO BLUE LINE COMMITTED COSTS



METRO BLUE LINE CASH FLOW PROJECTION

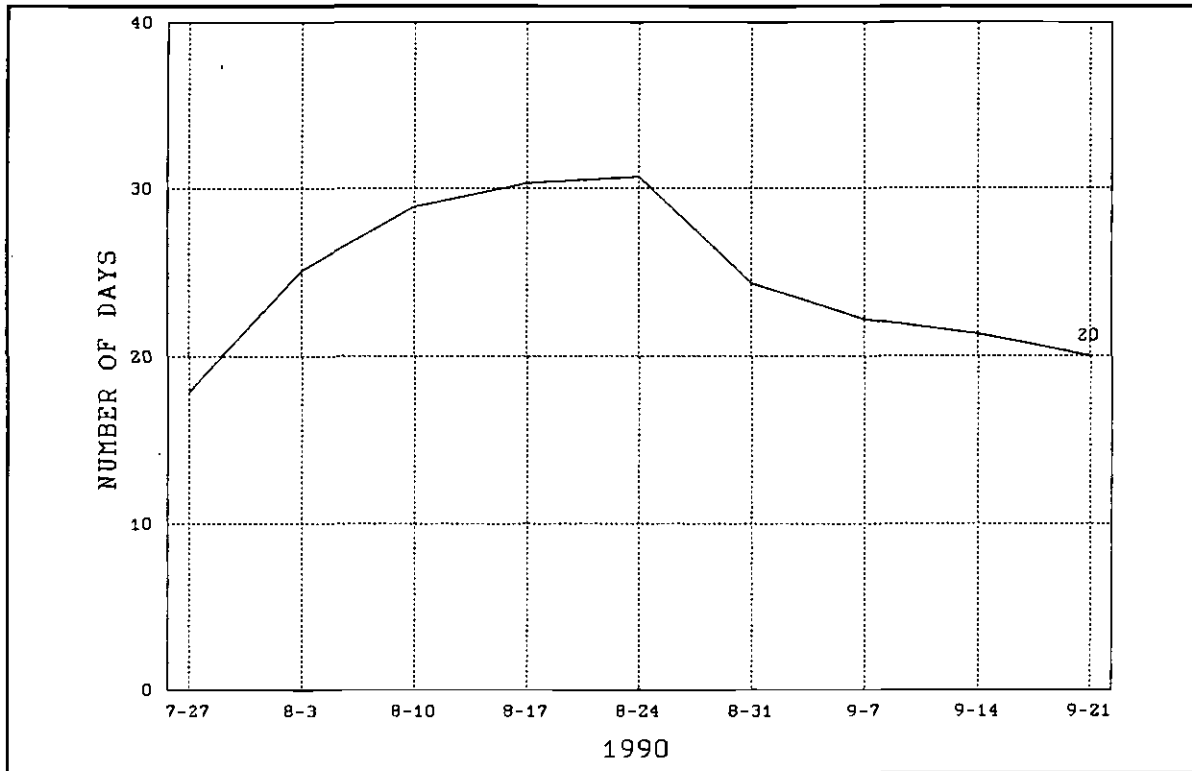




Metro Blue Line
Executive Summary Schedule

METRO BLUE LINE





Average Days to Invoice Payment
(4 Week Moving Average)

EXECUTIVE SUMMARY

The **Master Schedule** update with a status date of September 28, 1990 indicates that *the project is now 90 days behind schedule*, which is a slip of 19 days from the last update. This slip is due to the fact that the Rosecrans/Aviation & Kramer Bridge contract (C0110) which was scheduled to be advertised on October 1, 1990 is now scheduled to go out for bids October 27, 1990. Once the civil contracts in the El Segundo segment of the project have been awarded, a workaround plan will be developed in order to maintain the current ROD of October 1, 1994.

In the El Segundo segment of the project there are four defined civil contracts. One civil contract, Utility Relocation & Foundations (C0101), is in the bid/award cycle and is anticipated to have a Notice to Proceed issued in November 1990. The design for the other three civil contracts will be complete by the end of November 1990.

The design for all but five of the systems/systemwide contracts are scheduled to be complete by the end of 1990. The **design of the project is approximately 86% complete**. This is the number that was issued for the end of August report as the information for the end of September is not yet available from Transcal II.

Currently, in the Century Freeway segment of the project there *7 of the 12 civil contracts are under construction*. There are 2 contracts in the bid/award cycle and 3 are awaiting design completion.

Metro Green Line construction by Caltrans construction forces based on actual physical work in place in the Century Freeway segment, is currently slightly more than 1% complete. The El Segundo Elevated Guideway and Stations contract (C0100), which represents more than 30% of the total Metro Green Line project construction, is anticipated to start in the spring of 1991.

The cash flow information indicates that the **total project expenditure** to-date of \$50.9 million represents 8% of the current total forecast of \$598.9 million. The **project commitments** to-date are \$98.6 million of which \$16.8 million is for construction, ie. Caltrans and procurement contracts.

Out of the 32 parcels that are required for the start of construction of the Utilities Relocation & Foundations contract (C0101), *8 have been acquired and 3 are in condemnation*.

To-date there *no safety incidents have been reported* as no construction contracts which will be administered by the RCC and/ or their consultants have been awarded. Reporting on safety related issues is anticipated to begin in early 1991.

AREAS OF CONCERN

1. **Decision on Railroad vs. Trolley**

Concern: The Rail Construction Corporation (RCC) requires that a decision be made by Southern California Edison (SCE) that would allow the Metro Green Line operate as a trolley (LRT) as opposed to a railroad. This decision would eliminate the need to raise all power lines at the Hawthorne Yard and Compton Station areas.

Action: It is recommended by OKA that discussions between the RCC, Mr. McSpedon and/or Mr. Peterson and SCE senior management take place in order to resolve this issue.

2. **Design Completion Schedule**

Concern: Delay in the delivery of design of the Metro Green Line civil contract packages may have an impact to the current forecast revenue operation date (ROD) of October 1, 1994.

Action: It is recommended by OKA that the RCC direct the designer, Transcal II, to produce a recovery plan which indicates how the schedule dates are going to be achieved.

3. **Property Acquisition**

Concern: Private property right of way, AT & SF railroad right of entry and utilities relocation are major hurdles that must be overcome before construction can start.

Action: During the month of September, meetings were held with private property owners, public utilities and railroad representatives. It appears that the private sector problems are being resolved, but major problems remain with SCE. A definitive schedule for access to the SCE property for utility relocations. Once the schedule is produced, it will be analyzed to determine the effect on the current construction schedule. Obtaining the AT&SF Railroad right-of-way entry by January 1, 1991 is critical.

4. **Metro Green Line Budget**

Concern: The Metro Green Line project is continuing into its fourth year without a recognized and authorized budget.

Action: The budget was discussed at the RCC Board meeting held September 21, 1990. The LACTC board met on September 26, 1990 and due to the exclusion of the Imperial Grade Separation, the budget approval was tabled until the meeting to be held October 10, 1990.

5. Caltrans Rail Access Dates

Concern: The completion of Caltrans design packages and the start of Century Freeway construction continue to slip without any change in rail access dates.

Action: OKA has formed a task force to discuss the projected rail access and light rail construction issues with Caltrans. Meetings are being held with Caltrans design, project control and field personnel. It is anticipated that accurate access dates should be determined by the end of November 1990.

6. Finalization of Overall Project Scope

Concern: A decision is required to be made by the RCC fixing the vehicle fleet size and a go/no go on the full Hawthorne Yard and Shop construction contract. Both issues have major budget and schedule impacts.

Action: The above issues are on the agenda for the RCC Board meeting to be held October 22, 1990.

7. Kramer Property Hazardous Waste

Concern: The impact of the final treatment of the Kramer property hazardous material has not been determined on SCE utility relocations or on the Kramer Bridge construction.

Action: Soil reports have been submitted to SCE for review, after which they will develop a work plan on how they will proceed. The Environmental Protection Agency (EPA) must then approve both SCE's and the bridge contractor's work plans.

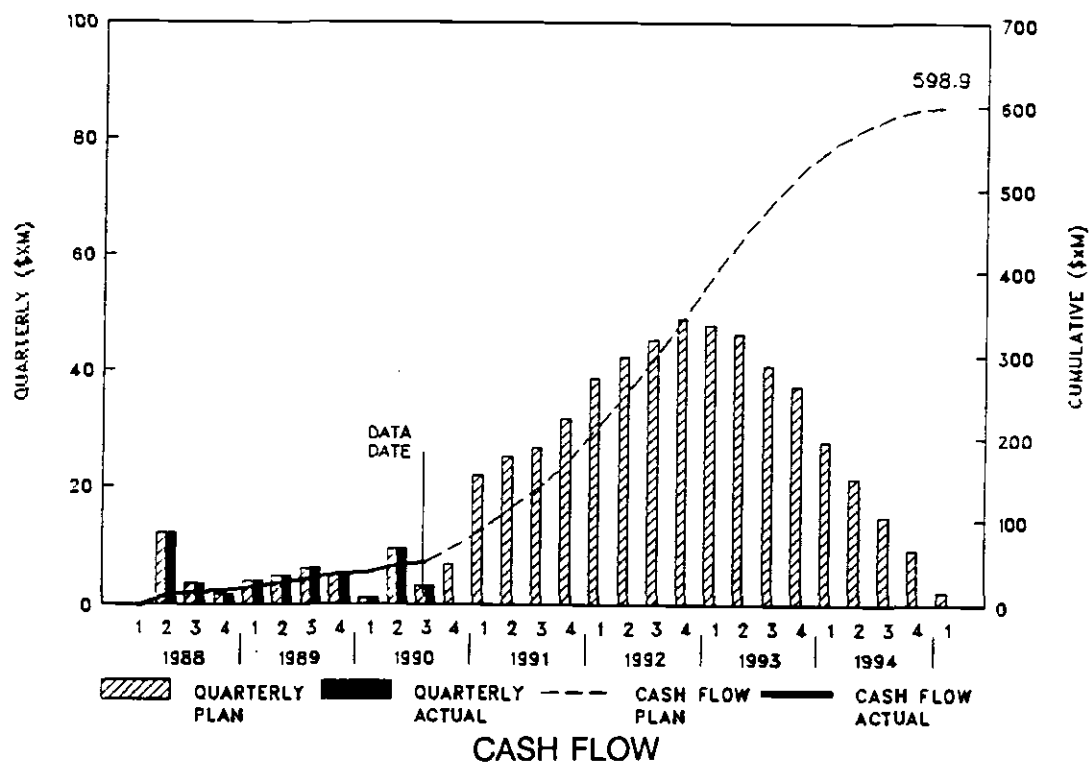
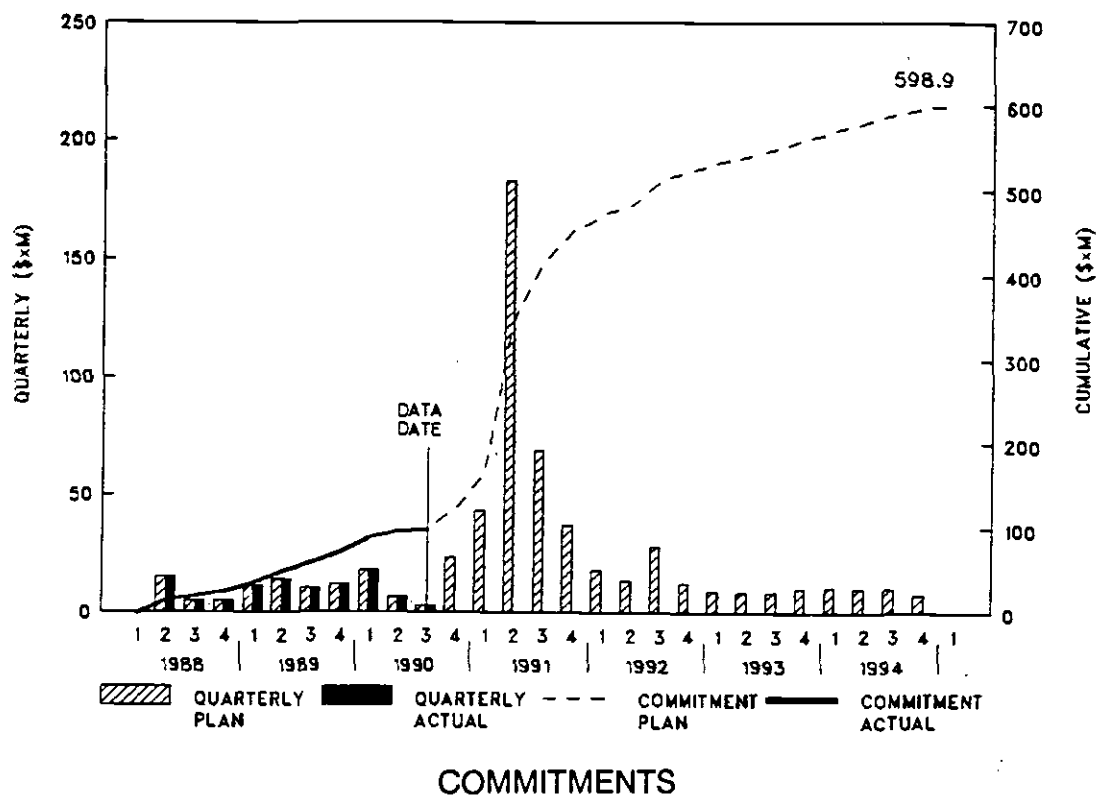
RAIL CONSTRUCTION CORPORATION
PROJECT COST REPORT - METRO GREEN LINE
SUMMARY BY COST ELEMENT

REPORT DATE: 10/10/90
STATUS DATE: 09/30/90

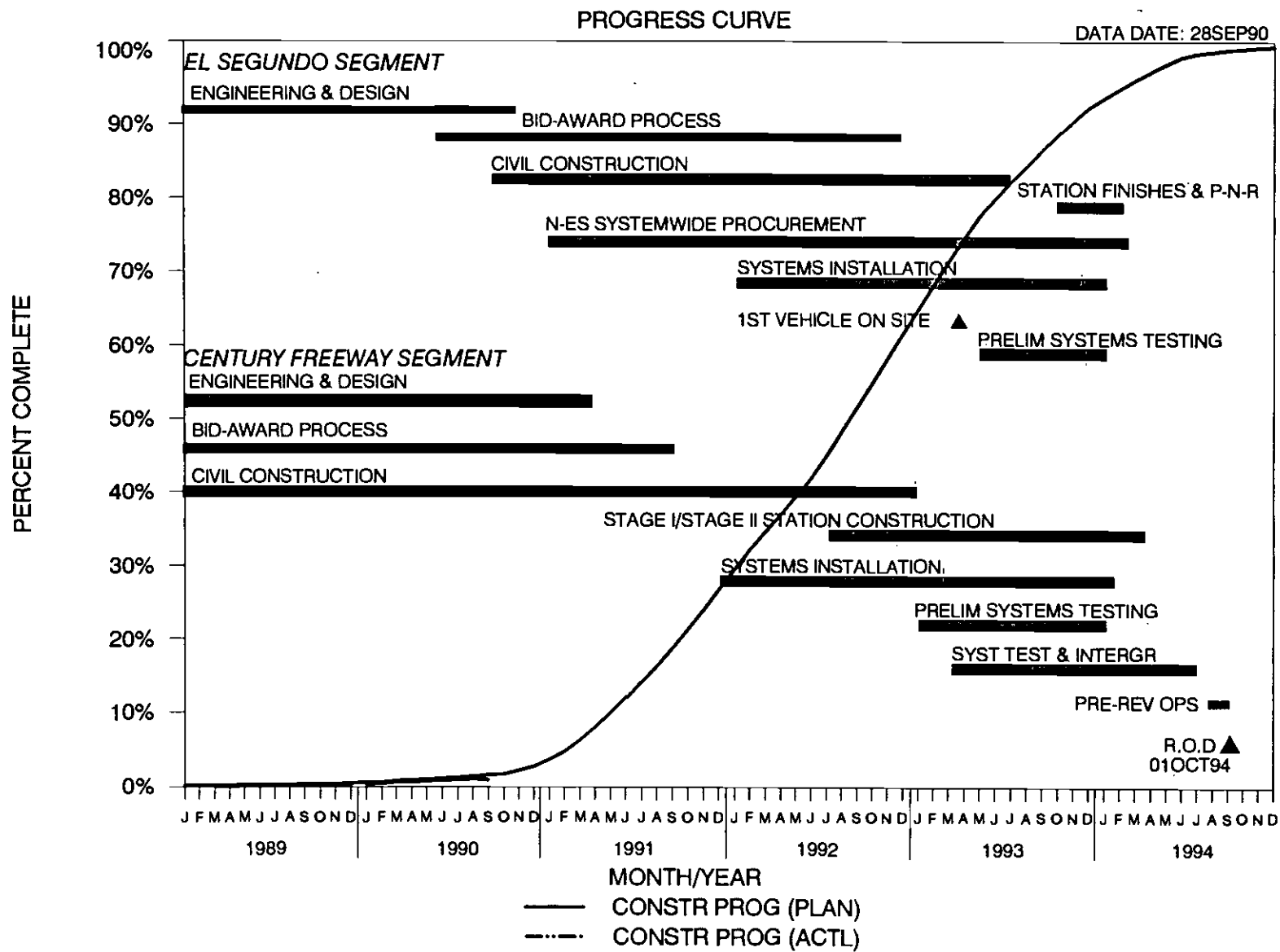
(IN THOUSANDS)

PROJECT: R23 METRO GREEN LINE	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	BUDGET		AUTHORIZED FOR EXPENDITURE		COMMITMENTS		INCURRED COST		EXPENDITURES		FORECAST	
DESCRIPTION	ORIGINAL	CURRENT	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	CURRENT	(11-2) VARIANCE
CONSTRUCTION	393,589	393,589	0	14,043	181	31,210	181	16,485	181	6,988	395,838	2,249
PROFESSIONAL SERVICES	98,849	98,849	0	32,695	0	68,809	168	29,045	411	26,990	108,195	9,346
REAL ESTATE	24,000	24,000	0	10,759	1	9,007	1	8,625	1	8,625	35,096	11,096
UTILITY/AGENCY FORCE ACCOUNTS	6,606	6,606	0	0	0	2,249	0	397	0	6,036	7,656	1,050
SPECIAL PROGRAMS	0	0	0	0	0	100	0	80	0	0	2,530	2,530
PROJECT RESERVE	58,226	58,226	0	0	0	0	0	0	0	0	58,834	608
PROJECT REVENUE	(1,628)	(1,628)	0	0	0	(880)	(21)	(234)	(21)	(234)	(9,236)	(7,608)
GRAND TOTAL PROJECT	579,642	579,642	0	57,497	182	110,495	329	54,398	572	48,405	598,913	19,271

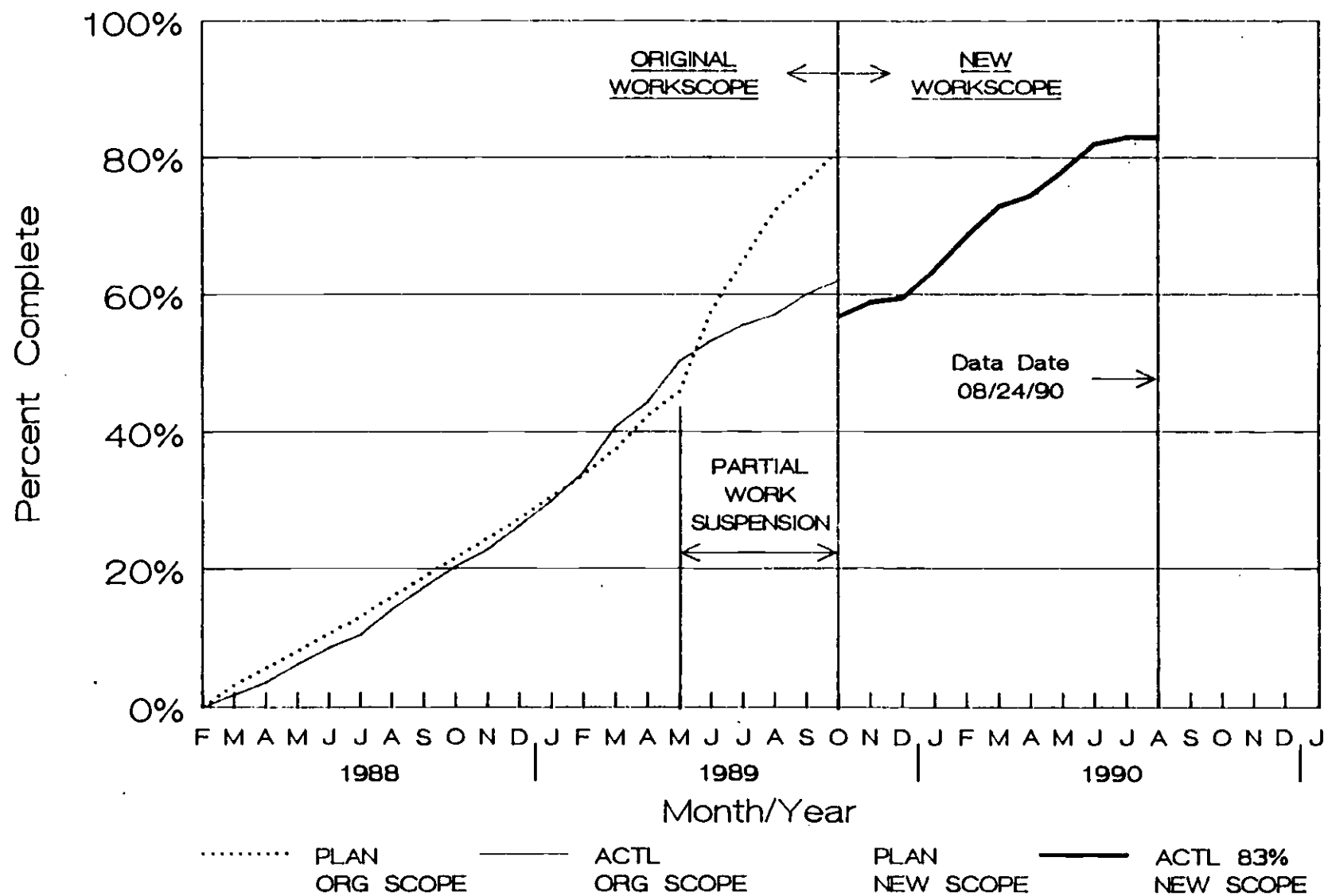
No relevant change data has occurred as of September 1990.



CONSTRUCTION



TRANSCAL II Design Engineering Progress Curve



1 YEAR OUTLOOK

GREEN LINE PROJECT SCHEDULE STATUS / KEY EVENTS
TOTALR23
90/91

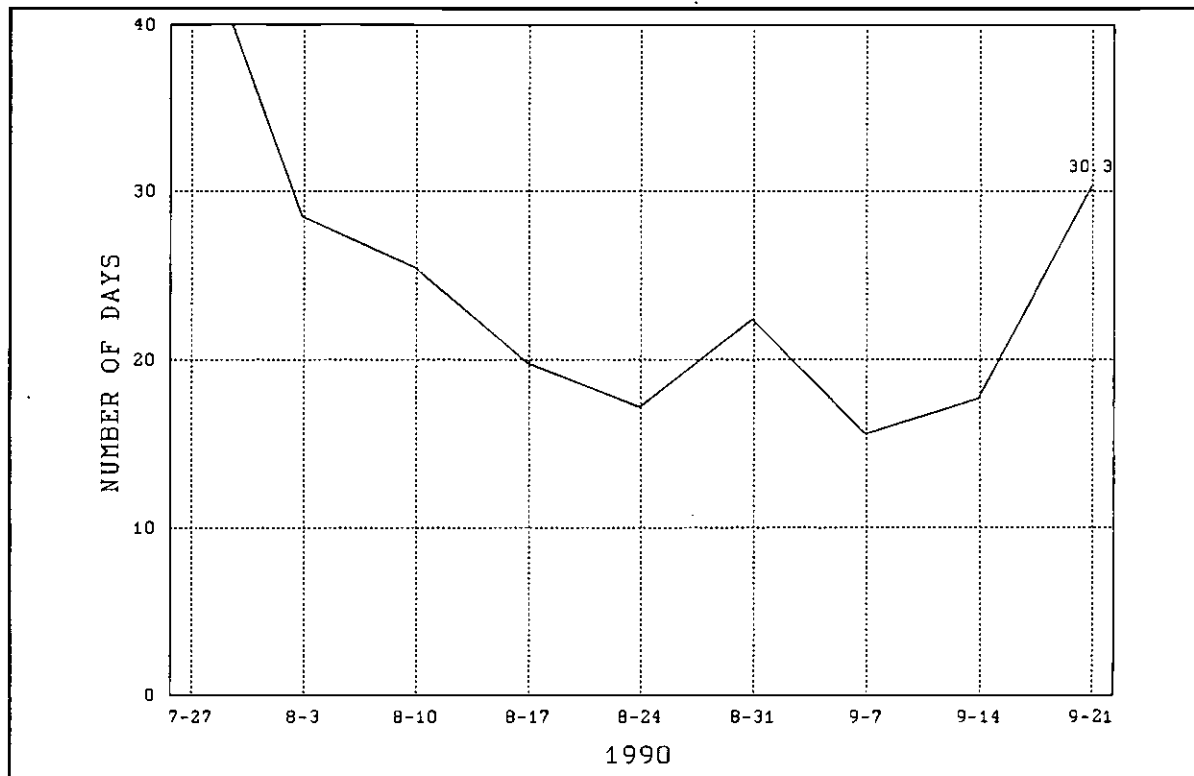
DATA DATE: 27 JUL 90

	AUG 90	SEP	OCT	NOV	DEC	JAN 91	FEB	MAR	APR	MAY	JUN	JUL
60% Design Submittal												
85% Design Submittal												
100% Design Submittal		3	1	2	3	3	1					
TOTAL		3	1	2	3	3	1					
CR Camera Ready		1	6	1	5	1	3					
AD Advertise		1	2	1	1	3		2			1	
BD Bid Due	1						1					
AW Award	1			1	2	3	1	1	1	4		
RE Real Estate												
NTP Construction		1		1	2	3		2	2	1	3	
MFG Veh. Mfg. NTP												
VT Vehicle Testing												
VA Vehicle Arrival												
LIQ Liquid. Milest.												
CC Contract Complt.			2				1				1	

NOTE: 1.) REPORT REFLECTS ONLY CONTRACT PACKAGES FOR MAJOR SYSTEMS.

REAL ESTATE - STATUS SUMMARY
GREEN LINE

CCU	NO. OF PARCELS	NUMBER CERT'D	JUST COMP APPROVED	OFFERS MADE	AGRMNT SIGNED	CONDEM- NATION	PARCELS AVAIL	PARCELS NOT AVAIL	CONSTRUCT. NTP DATE
C100	32	32	11	10	2	3	8	24	08/01/88
TOTAL	32	32	11	10	2	3	8	24	



Average Days to Invoice Payment
(4 Week Moving Average)

EXECUTIVE SUMMARY

As of September 28, 1990, the MOS-1 **Revenue Operations Date (ROD)** remains September 1993. The **critical path** in this schedule is dependent on trackwork access, whereby all tunnel and station contracts must complete their work in the trackbed area so the trackwork contractor (Contract A610) can pour the top concrete level and lay the rail. Contracts A141, Line Section from Union Station to 5th/Hill and Civic Center station and Contract A130, Yard Leads and Transfer Zone are the latest contracts to achieve trackwork access. Delays to either contract could impact the MOS-1 schedule.

The **value of work in place** for overall MOS-1 construction is 68.1%. 47 of the total 68 MOS-1 contracts have been advertised and eleven contracts are complete.

The original MOS-1 baseline budget was \$1,249 million. The **current budget** is \$1,353 million with a **current forecast** of \$1,353 million. **Current contingency** for MOS-1 is listed in the Revision 7E financial plan at \$42 million. The budget and the forecast did not change during September 1990.

Several items have been identified as increases to the financial plan and will be included in the financial plan forecast Revision 7F dated September 28, 1990. These items include estimated settlements for claims, and new change orders and change requests. Estimates are being prepared which will result in a reallocation from contingency.

AREAS OF CONCERN

1. Contract A136, Union Station Stage II

Concern: Contract A136 was not awarded on September 28, 1990, as planned. This delay will potentially impact the follow-on contractors.

Action: A change notice which will rearrange certain portions of the Contract A136 work is being drafted by PDCD to be ready as soon as the contract is awarded. The contract award is now scheduled for October 10, 1990.

2. Requests for Information

Concern: The large number of submittals of Requests for Information (RFI's) have made it difficult to respond to the contractor's questions in a timely manner and is potentially impeding progress in Contract A167, 7th and Flower Station Stage II, and the accelerated Light Rail opening.

Action: MRTC and PDCD have worked out a resolution which was implemented in September. An analysis of this approach will be conducted in October to determine effectiveness and resolve any further problems.

3. Contract A141, Line Section Union Station to Civic Center Station and Civic Center Station

Concern: Although the Project schedule shows some float on the Contract A141 trackwork access, this contract is critical to AR trackwork completion. The AR North tunnel is needed to be complete for access by 10/22/90 and is not expected to be complete until mid-November.

Action: The Contract A141 contractor and the Contract A610 contractor are working together to give the A610 contractor partial access while the A141 contractor completes his work. PDCD is closely monitoring this issue.

4. Contract A640, Communications

Concern: The present cable specifications for Contract A640 are not acceptable to Pactel Meridian, Bechtel's subcontractor. In order to avoid schedule impact, a decision regarding modification of the specifications is required by October 24, 1990.

Action: MRTC is considering an acceptable resolution to this issue.

5. Contract A650, Vehicles

Concern: Breda, the Contract A650 prime contractor, is reporting a 3 1/2 month delay to the schedule for delivery of the propulsion system due to problems with ABB, their subcontractor.

Action: The Breda master schedule does not indicate any delay in delivery of the vehicles to Los Angeles. Booz Allen Hamilton believes that adjustments can be made to the test sequence to avoid any impact to ROD.

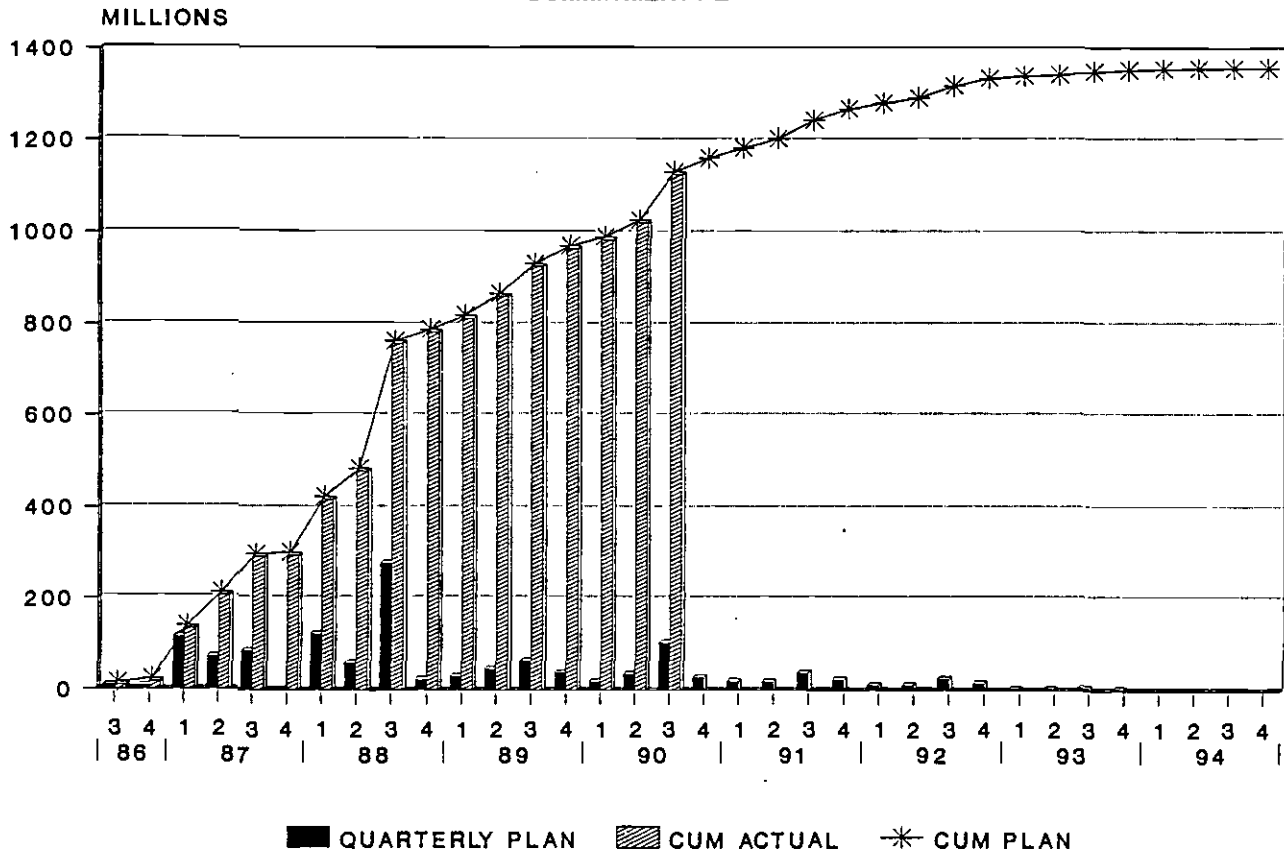
RAIL CONSTRUCTION CORPORATION
PROJECT COST REPORT - METRO RED LINE (MOS-1)
SUMMARY BY COST ELEMENT

REPORT DATE: 10/10/90
STATUS DATE: 09/30/90

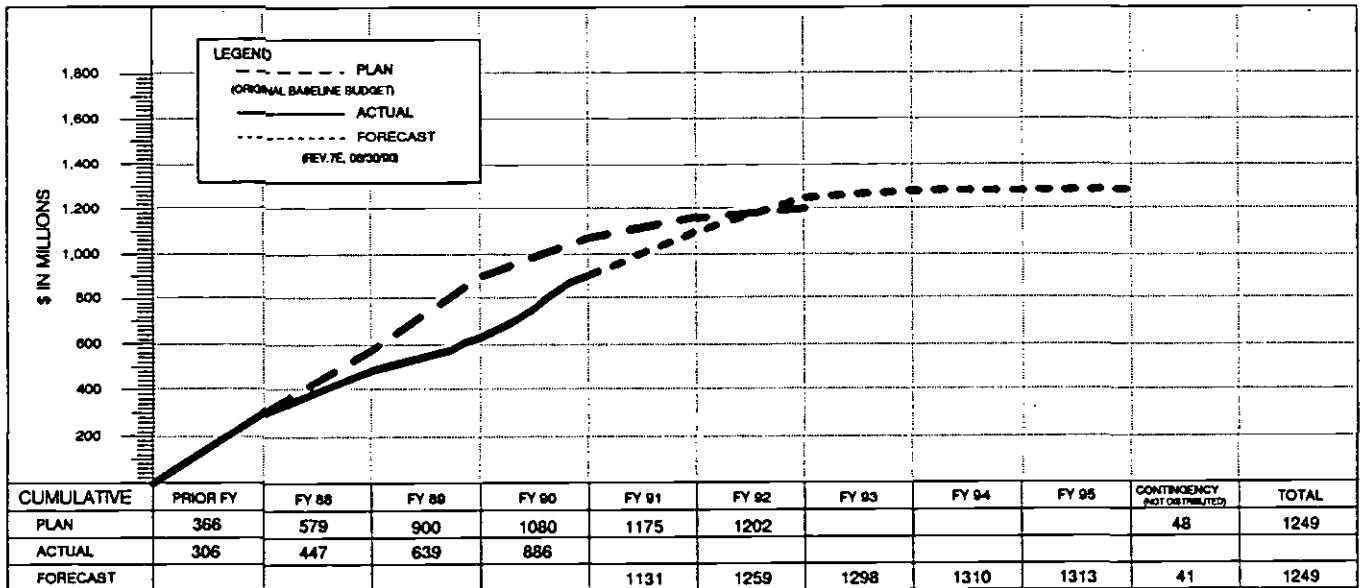
(IN THOUSANDS)

PROJECT: R80 METRO RED LINE	(1) BUDGET	(2) UMTA APPROVED	(3) AUTHORIZED FOR EXPENDITURE	(4) TD DATE	(5) COMMITMENTS	(6) COMMITMENTS	(7) INCURRED COST	(8) INCURRED COST	(9) EXPENDITURES	(10) EXPENDITURES	(11) FORECAST	(12) FORECAST
DESCRIPTION	ORIGINAL	UMTA APPROVED	PERIOD	TD DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	CURRENT	(11-2) VARIANCE
CONSTRUCTION	689,213	698,747	0	198,078	660	609,822	8,115	448,996	7,907	438,039	703,585	4,838
PROFESSIONAL SERVICES	400,557	436,952	0	19,829	900	355,239	(31)	350,380	2,249	352,629	452,348	15,396
REAL ESTATE	92,363	131,047	0	417	2,746	109,914	246	102,083	3,232	105,315	140,186	9,139
UTILITY/AGENCY FORCE ACCOUNTS	18,670	14,165	0	5,329	0	11,964	50	8,465	(50)	8,415	15,456	1,291
SPECIAL PROGRAMS	1,123	948	0	508	0	653	0	169	0	169	948	0
PROJECT RESERVE	47,974	72,041	0	0	0	0	0	0	0	0	41,377	(30,664)
PROJECT REVENUE	0	0	0	0	0	0	0	0	0	(1,694)	0	0
GRAND TOTAL PROJECT	1,249,900	1,353,900	0	224,161	4,306	1,087,592	8,380	910,093	13,338	902,873	1,353,900	0

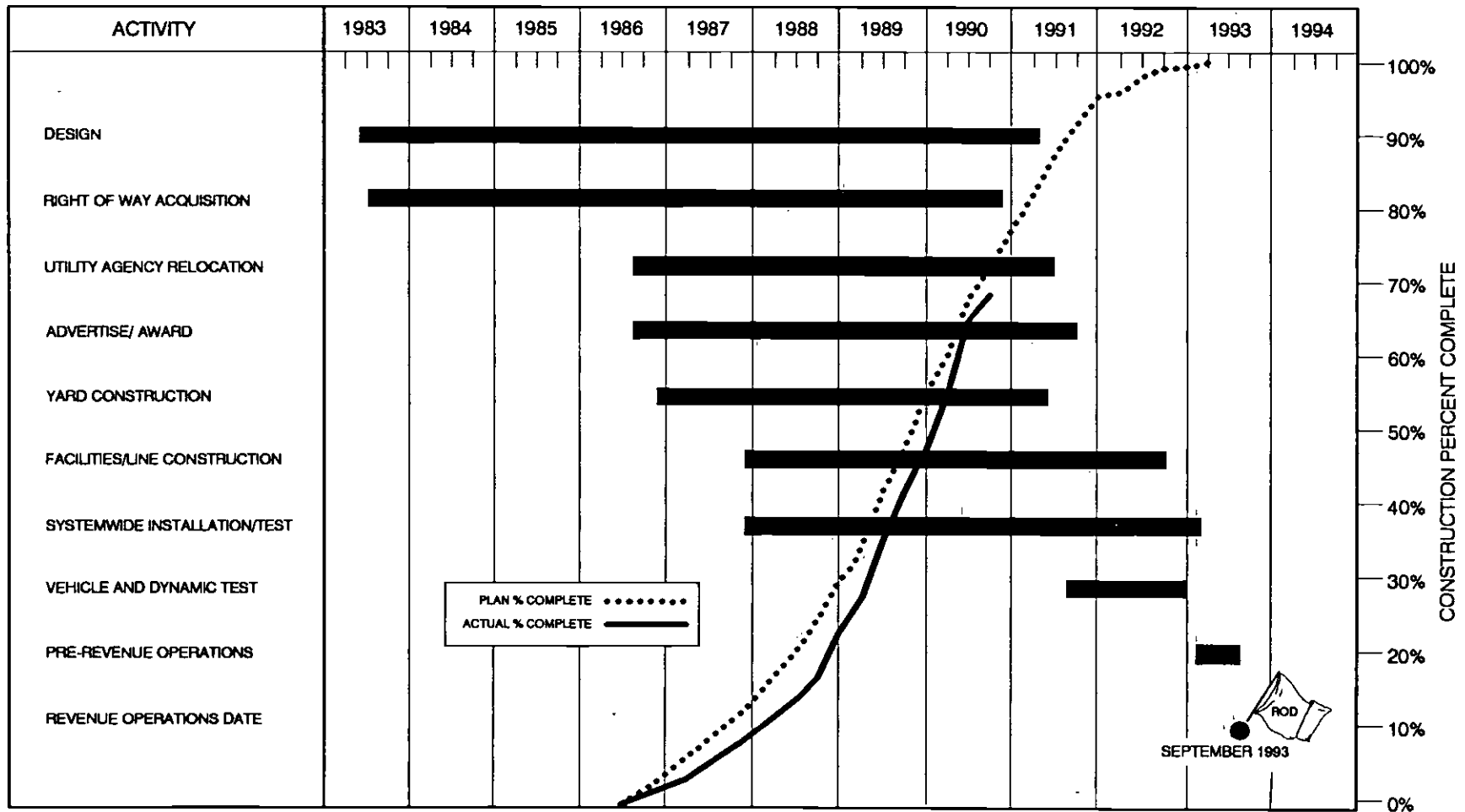
METRO RED LINE MOS-1
COMMITMENT PLAN



METRO RED LINE MOS-1
CASH FLOW



RAIL CONSTRUCTION CORPORATION METRO RED LINE MOS-1 EXECUTIVE SUMMARY SCHEDULE



1 YEAR OUTLOOK

MOS-1 PROJECT SCHEDULE STATUS / KEY EVENTS
TOTALR80
90/91

DATA DATE: 27 JUL 90

	AUG 90	SEP	OCT	NOV	DEC	JAN 91	FEB	MAR	APR	MAY	JUN	JUL
60% Design Submittal												
85% Design Submittal												
100% Design Submittal												
TOTAL												
CR Camera Ready												
AD Advertise	2				1	2			1			
BD Bid Due	1	1	2			1		2			1	
AW Award		2	1	1			1		2			
RE Real Estate												
NTP Notice to Proc.			2		2			1		2		
MFG Manufacturing												
SD Delivery Start												
FD Delivery Finish												
LIQ Liquid. Milest.	2		1	2				1	2	1	2	
INT Interfc. Milest.												
CC Contract Complt.			1		1		1	2	2	1	1	2

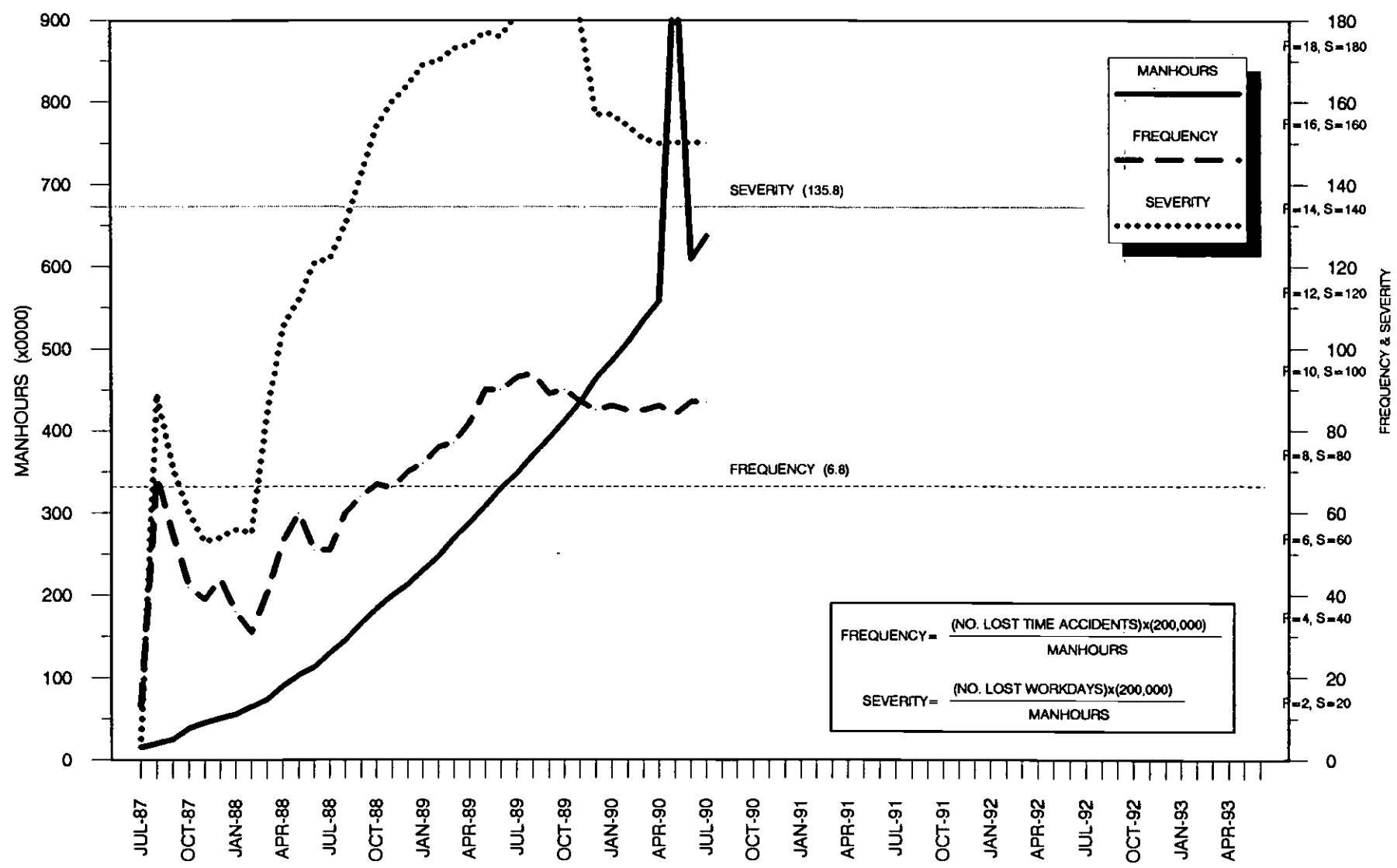
NOTE: 1.) REPORT REFLECTS ONLY CONTRACT PACKAGES FOR MAJOR SYSTEMS.

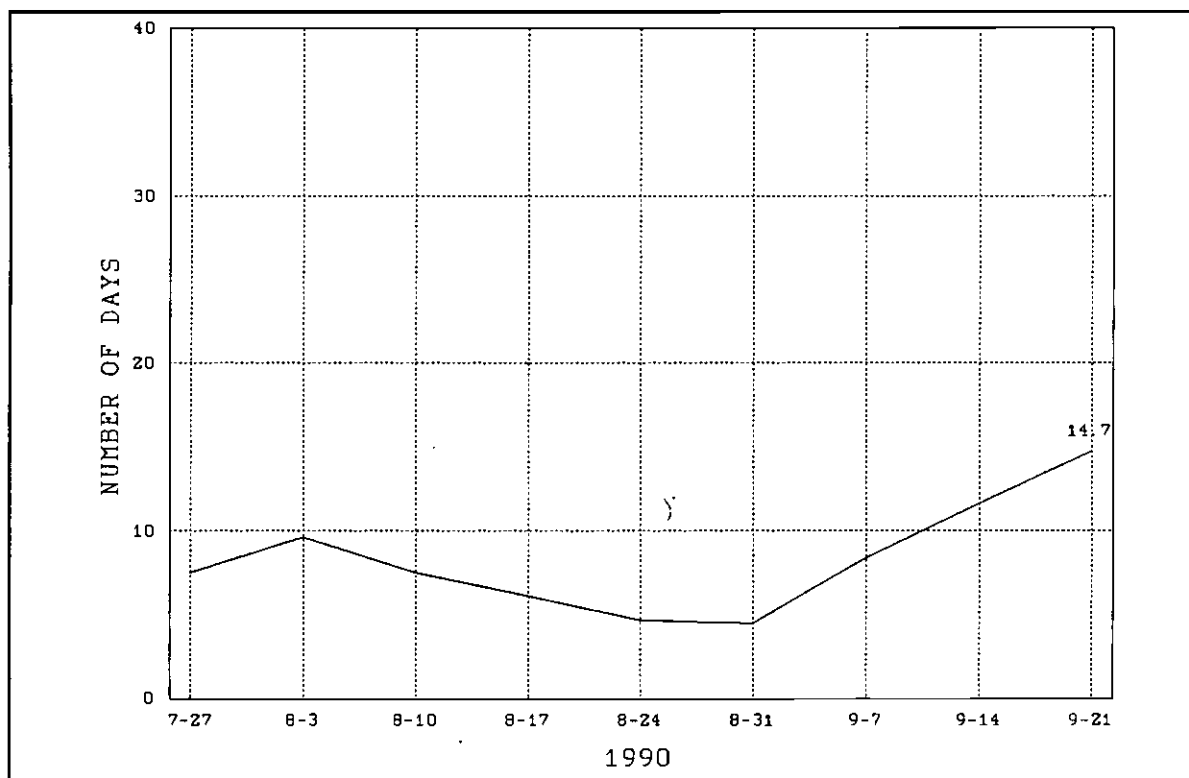
REAL ESTATE - STATUS SUMMARY
MOS-1

CCU	NO. OF PARCELS	NUMBER CERT'D	JUST COMP APPROVED	OFFERS MADE	AGRMNT SIGNED	CONDEM- NATION	PARCELS AVAIL	PARCELS NOT AVAIL	CONSTRUCT. NTP DATE
A112	1	1	1	1	1	0	1	0	09/28/87
A130	16	16	16	16	12	4	16	0	07/01/88
A135	7	7	7	7	5	2	7	0	06/13/88
A141	18	18	18	18	18	0	18	0	03/16/87
A145	13	13	13	13	12	1	13	0	04/02/87
A146	11	11	11	11	4	7	11	0	04/06/87
A165	3	3	3	3	1	2	3	0	01/05/88
A171	14	14	14	14	13	1	14	0	02/02/87
A175	10	10	10	10	5	5	10	0	07/27/87
A610	1	1	1	1	1	0	1	0	01/04/88
TOTAL	94	94	94	94	72	22	94	0	

MOS-1 MANHOURS & FREQUENCY, SEVERITY RATES

Page 8





Average Days to Invoice Payment
(4 Week Moving Average)

EXECUTIVE SUMMARY

The **Master Schedule** update with status indicated to September 28, 1990, shows that the *project is currently on schedule*.

The **critical path for the Wilshire Line** continues to be through the Wilshire/Normandie Station and Line, B221, and the integrated testing. The **critical path for the Vermont/Hollywood Line** is through the Hollywood/Western Station and Tunnels, B271, and the integrated testing.

The overall Metro Red Line MOS-2 **design** is *approximately 37 percent complete*, versus a plan of 39 percent. **Construction** is *scheduled to commence in January 1990*.

The Metro Red Line MOS-2 **current budget** is \$1,446 million with a current forecast of \$1,446 million. The current forecast includes all changes made since the execution of the Contract with UMTA. *Most changes commonly result from revised facility construction estimates made as the facility designs proceed to more complete definition. The contingency allowance in the forecast has been reduced by \$10.2 million to reflect these changes.*

The following items have been identified as **potential cost increases** but have not yet had trend reports made out for them and so do not appear in the cost report: fire protection for traction power substations; additional contractor Quality Control requirements; increased tunnel construction cost due to prohibition of timber lagging and other safety related requirements.

Currently, *66 parcels of land (per MRTC's Right-of-Way Certification Schedule) are required for MOS-2*. There are 16 full takes; six partial takes; 42 subsurface easements, and two temporary construction easements. These acquisitions will involve the relocation of approximately 89 commercial businesses. From time to time, it does become necessary to decertify some parcels, therefore the number of takings can be subject to change accordingly, depending on engineering or construction needs. *To date (10/1/90), three MOS-2 parcels have been acquired; six offers to purchase are open, and three condemnations have been obtained from the Los Angeles Superior Court.*

This month *two major construction contracts were advertised*; Wilshire/Alvarado to Wilshire/Vermont Line, B201 and Wilshire/Western Station, B231. These are the first MOS-2 construction contracts and B201 bids are scheduled to open in October.

The **Revenue Operation Dates** *remain on the original schedule* of July 16, 1996 for the Wilshire Line and September 29, 1998 for the Vermont/Hollywood Line.

AREAS OF CONCERN

1. Safety Changes Resulting From Tunnel Fire Investigation

Concern: The changes required as a result of recommendations following the investigation of the tunnel fire are not yet fully defined. When resolved, the changes must be incorporated into the facility designs where required, e.g. ban on timber lagging in tunnels.

Action: Changes will be implemented in contracts already advertised with potential adverse effect on schedule. Changes also may result in cost and/or schedule increases for contracts currently in design.

2. Delay In Selection of Artists For Vermont/Hollywood Stations

Concern: Two Section Designers have been given NTP to begin design - Vermont/Santa Monica Station, B252 and Hollywood/Western Station, B271. A third design team for Vermont/Beverly Station, B241, will be given NTP in early October. Artists have not yet been designated and assigned to work with the Section Designers for the Art- in-transit program.

Action: Section Designers are scheduled to make architectural presentations of their designs three months after NTP. It may be impossible to integrate the Artist's input into the designs and presentations and still meet the schedule because of the delay in the selection process.

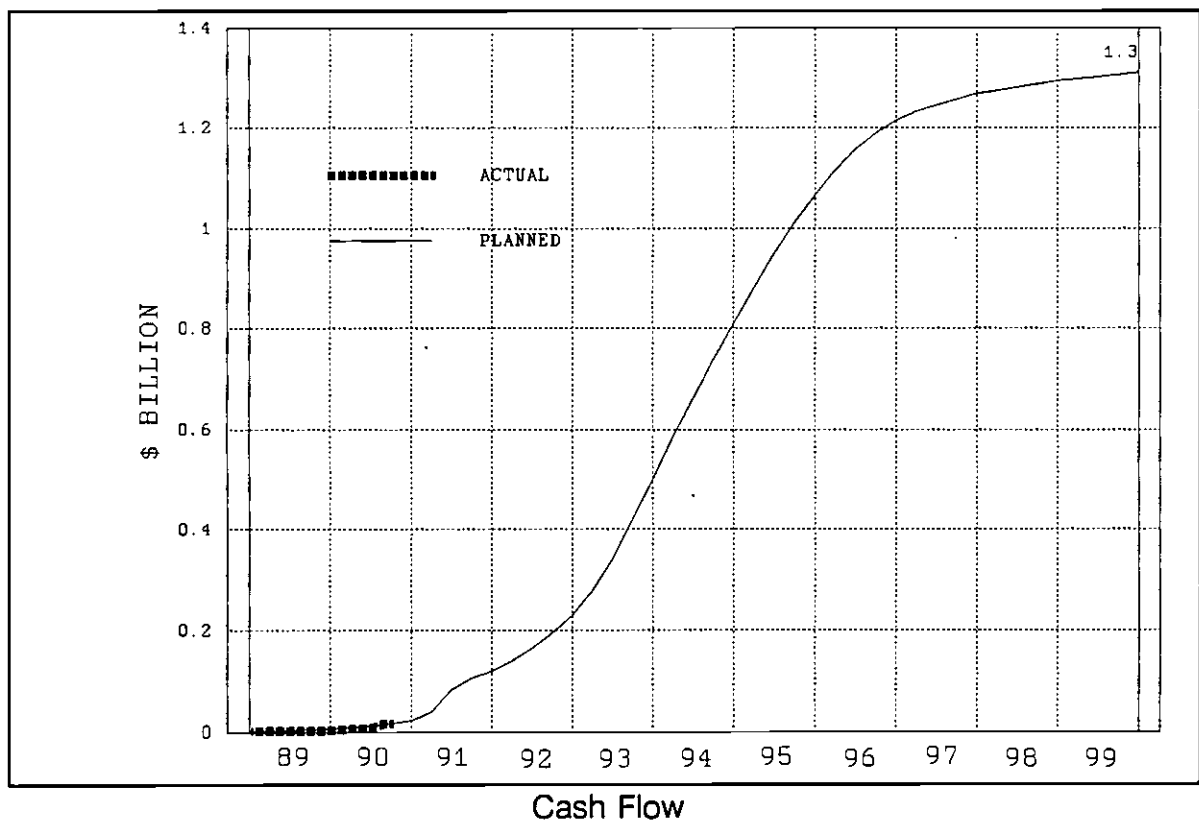
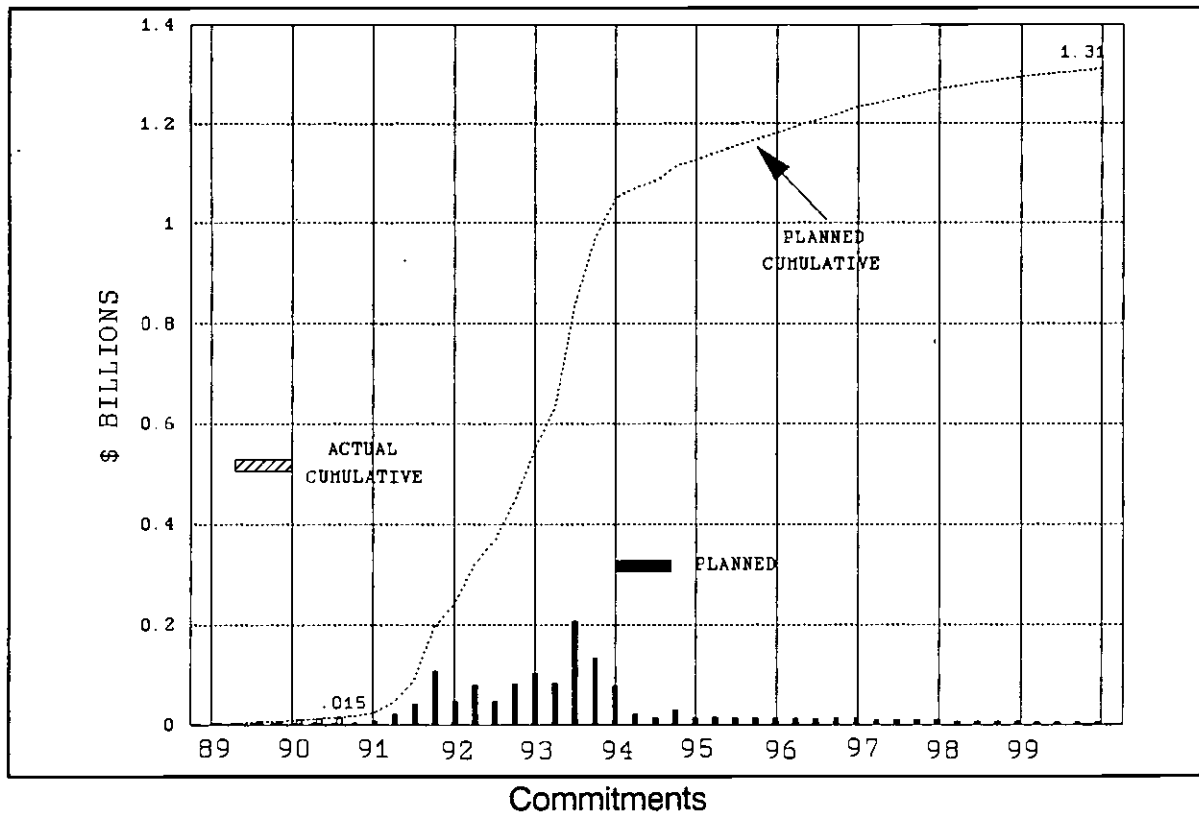
RAIL CONSTRUCTION CORPORATION
PROJECT COST REPORT - METRO RED LINE (MOS-2)
SUMMARY BY COST ELEMENT

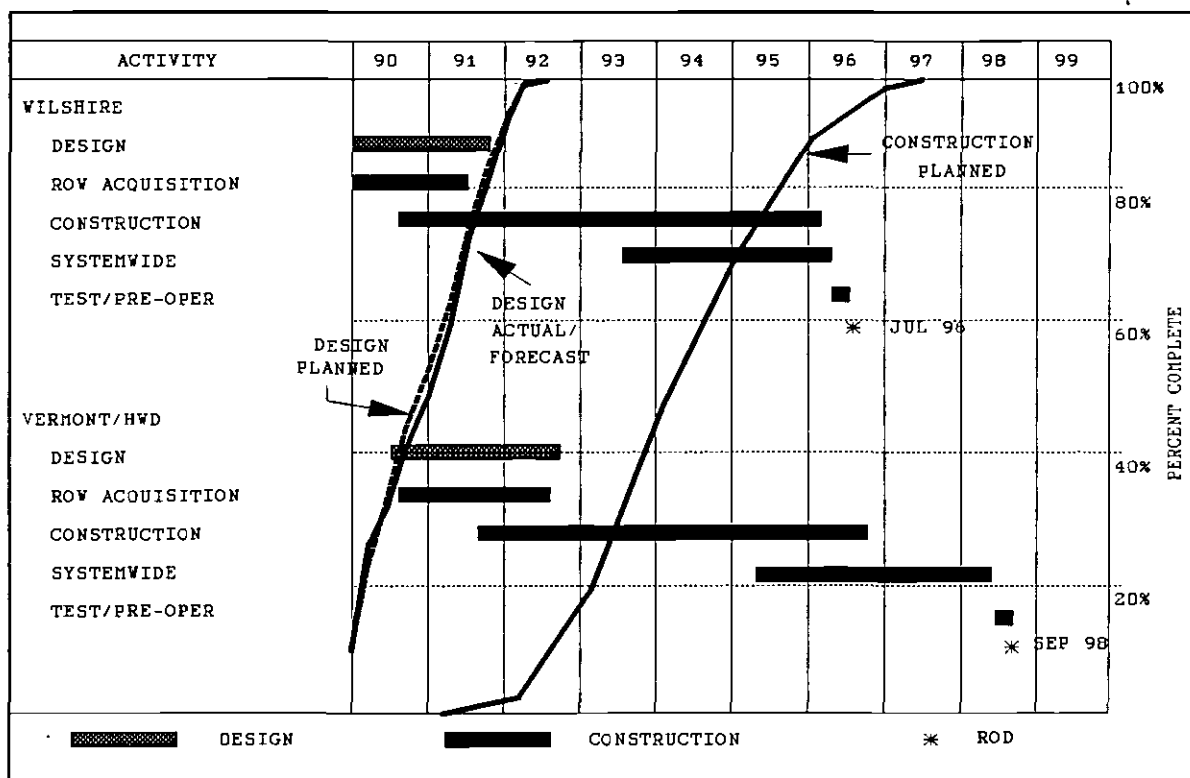
REPORT DATE: 10/10/90
STATUS DATE: 09/30/90

(IN THOUSANDS)

PROJECT: R81 METRO RED LINE	(1) BUDGET	(2) UMTA APPROVED	(3) AUTHORIZED FOR EXPENDITURE	(4) TO DATE	(5) PERIOD	(6) TO DATE	(7) PERIOD	(8) TO DATE	(9) PERIOD	(10) TO DATE	(11) CURRENT	(12) (11-2) VARIANCE
DESCRIPTION	ORIGINAL	UMTA APPROVED	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	CURRENT	VARIANCE
CONSTRUCTION	892,999	892,999	0	2,946	0	2,946	0	2,964	0	2,946	910,172	17,173
PROFESSIONAL SERVICES	289,151	289,151	0	22,554	1,244	20,961	1,244	20,961	1,244	20,961	286,590	(2,561)
REAL ESTATE	79,827	79,827	0	11,358	3,689	14,138	3,689	14,138	3,689	14,138	76,734	(3,093)
UTILITY/AGENCY FORCE ACCOUNTS	36,667	36,667	0	0	0	79	0	79	0	79	35,075	(1,592)
SPECIAL PROGRAMS	2,045	2,045	0	0	0	0	0	0	0	0	2,045	0
PROJECT RESERVE	145,743	145,743	0	0	0	0	0	0	0	0	135,816	(9,927)
PROJECT REVENUE	0	0	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL PROJECT	1,446,432	1,446,432	0	36,858	4,933	38,124	4,933	38,142	4,933	38,124	1,446,432	0

No relevant change data has taken place as of September 1990





Executive Summary Schedule

1 YEAR OUTLOOK

MOS-2 PROJECT SCHEDULE STATUS / KEY EVENTS

TOTAL

R81

90/91

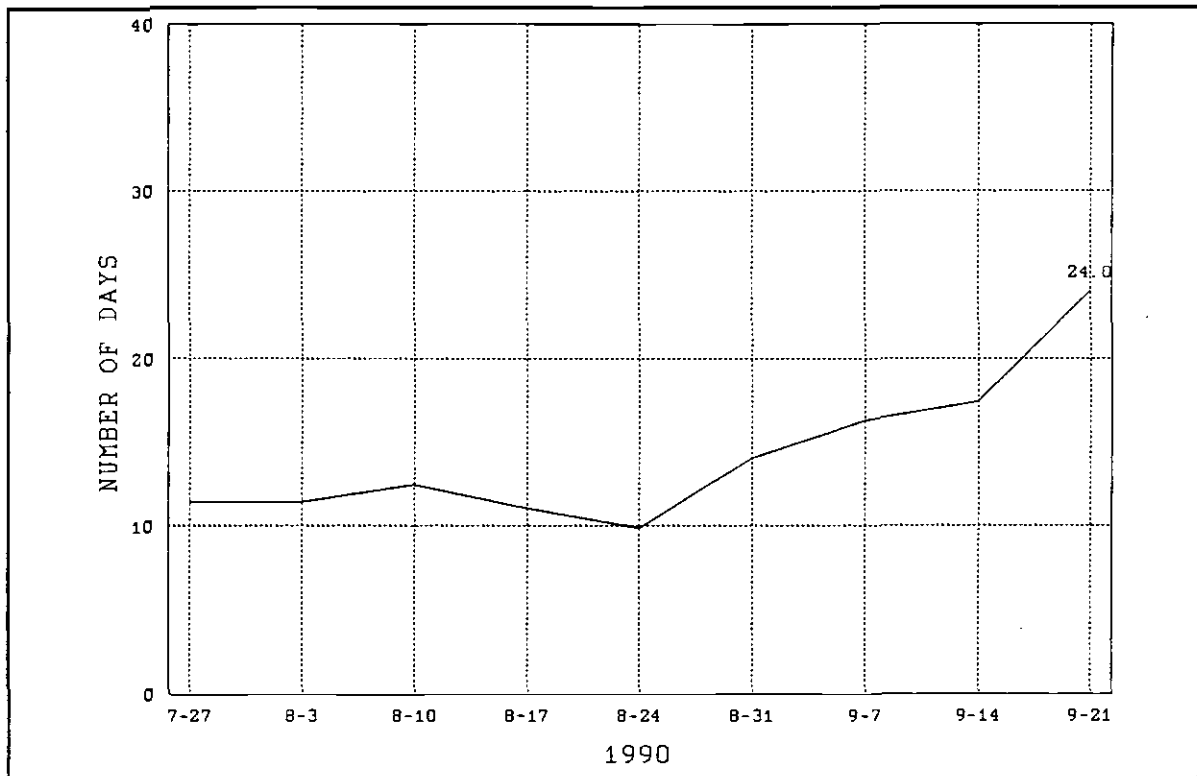
DATA DATE: 27 JUL 90

	AUG 90	SEP	OCT	NOV	DEC	JAN 91	FEB	MAR	APR	MAY	JUN	JUL
60% Design Submittal				1		1			2		1	
85% Design Submittal				1				1		1		1
100% Design Submittal	1		1			1						1
TOTAL	1		1	2		2		1	2	1	1	2
CR Camera Ready	2	1		1		1	1					
AD Advertise	2	1		1		1	1					
BD Bid Due		1	1	1		1	1		1			
AW Award					2	1			2			
RE Real Estate					2				2	3		
NTP Notice to Proc.						3				2		
MFG Manufacturing												
SD Delivery Start												
FD Delivery Finish												
LIQ Liquid. Milest.												
INT Interfc. Milest.												
CC Contract Complt.						1						1

NOTE: 1.) REPORT REFLECTS ONLY CONTRACT PACKAGES FOR MAJOR SYSTEMS.

REAL ESTATE - STATUS SUMMARY
MOS-2

CCU	NO. OF PARCELS	NUMBER CERT'D	JUST COMP APPROVED	OFFERS MADE	AGRMNT SIGNED	CONDEM- NATION	PARCELS AVAIL	PARCELS NOT AVAIL	CONSTRUCT. NTP DATE
B201	4	4	0	0	0	0	0	4	08/01/88
B211	6	5	2	2	0	1	0	6	08/01/88
B218	1	1	1	1	0	1	0	1	08/01/88
B221	15	13	0	0	0	0	0	15	08/01/88
B231	3	3	0	1	0	0	0	3	08/01/88
B241	3	0	0	0	0	0	0	3	08/01/88
B251	20	0	0	0	0	0	0	20	08/01/88
B252	3	0	0	0	0	0	0	3	08/01/88
B261	3	0	0	0	0	0	0	3	08/01/88
B271	7	1	1	1	1	0	1	6	08/01/88
B281	1	1	0	0	0	0	0	1	08/01/88
TOTAL	66	28	4	5	1	2	1	65	



Average Days to Invoice Payment
(4 Week Moving Average)