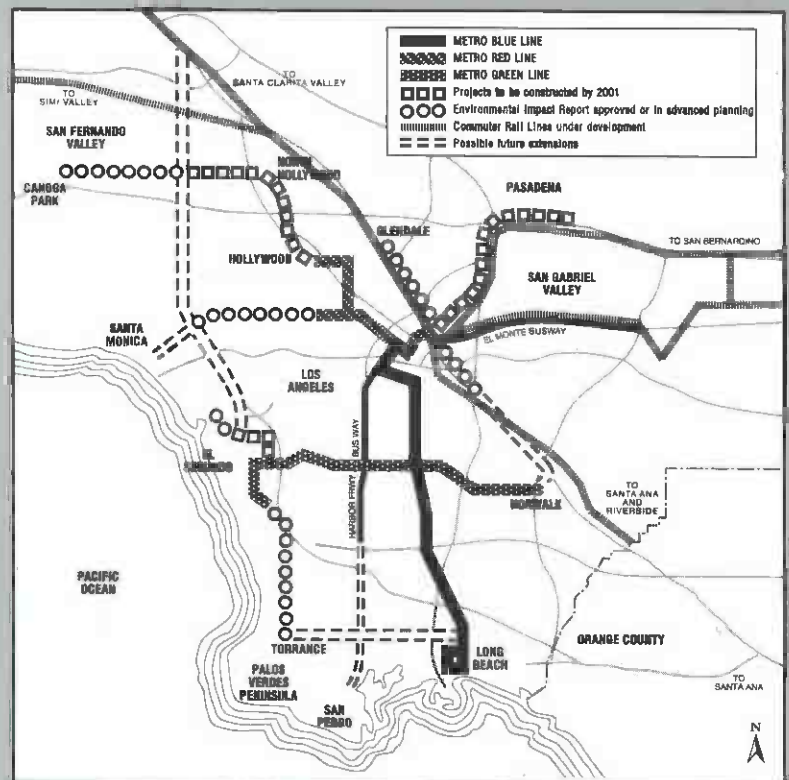


RAIL CONSTRUCTION CORPORATION



Executive Report Rail Program Status



**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 - the Metro Blue Line, the Metro Green Line, and the Metro Red Line, MOS-1 and MOS-2. The projects have a combined budget of \$4,277,000,000 and a combined current forecast of \$4,373,000,000, approximately 2% over budget. The budget increase of \$20,000,000 from last month's report (September 1990) comes from the October approval by LACTC of the new Metro Green Line budget.

The entire budget variance is from the new Revision 7F financial plan forecast for the Metro Red Line MOS-1. The forecast of \$1,450,000,000 compares with the previous forecast of \$1,353,900,000, a difference of approximately \$96,000,000. The areas of Construction and Professional Services have been identified as major contributors to this variance. Measures are now being taken to control and mitigate the forecasted costs in these areas.

Over 1700 construction change notices have been received to date for the Metro Red Line MOS-1. The dollar value of executed change orders for the Metro Red Line MOS-1 is about \$48,000,000 and the backlog of unresolved changes is increasing slightly. The number of outstanding change notices over 30 days old account for about 27% of the total outstanding change notices. No change notices have been received to date for the Metro Red Line MOS-2 (no construction activity is underway) and only minor change activity has occurred on the Metro Green Line. Metro Blue Line change orders executed to date exceed \$49,000,000 with a current backlog of 371 outstanding change notices of which 92% are over 30 days old.

The 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.

PROGRAM CASH FLOW

Through October 1990, total program expenditures for active projects is approximately \$1,783,000,000. 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.

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

STATUS DATE: 10/26/90

(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	2,483,674	2,604,873	62,824	1,103,410	6,107	1,115,291	33,852	962,159	38,540	958,906	2,657,408	52,535
PROFESSIONAL SERVICES	921,496	1,023,175	0	577,823	6,267	629,905	32,448	260,626	7,621	585,557	1,067,211	44,036
REAL ESTATE	247,133	301,562	0	181,494	4,317	187,824	3,869	76,788	1,646	178,584	306,923	5,361
UTILITY/AGENCY FORCE ACCOUNTS	113,170	105,866	6,266	61,653	4,285	68,780	4,380	51,894	4,597	65,421	98,650	(7,216)
SPECIAL PROGRAMS	5,698	11,851	0	508	0	753	0	80	196	196	11,854	3
PROJECT RESERVE	313,628	275,779	0	0	0	0	0	0	0	0	277,179	1,400
PROJECT REVENUE	(18,115)	(46,503)	0	0	(83)	(503)	(1,999)	(3,527)	(2,000)	(5,220)	(46,503)	0
GRAND TOTAL PROJECTS	4,066,684	4,276,603	69,090	1,924,888	20,893	2,002,050	72,550	1,348,020	50,600	1,783,444	4,372,722	96,119

Figure 1

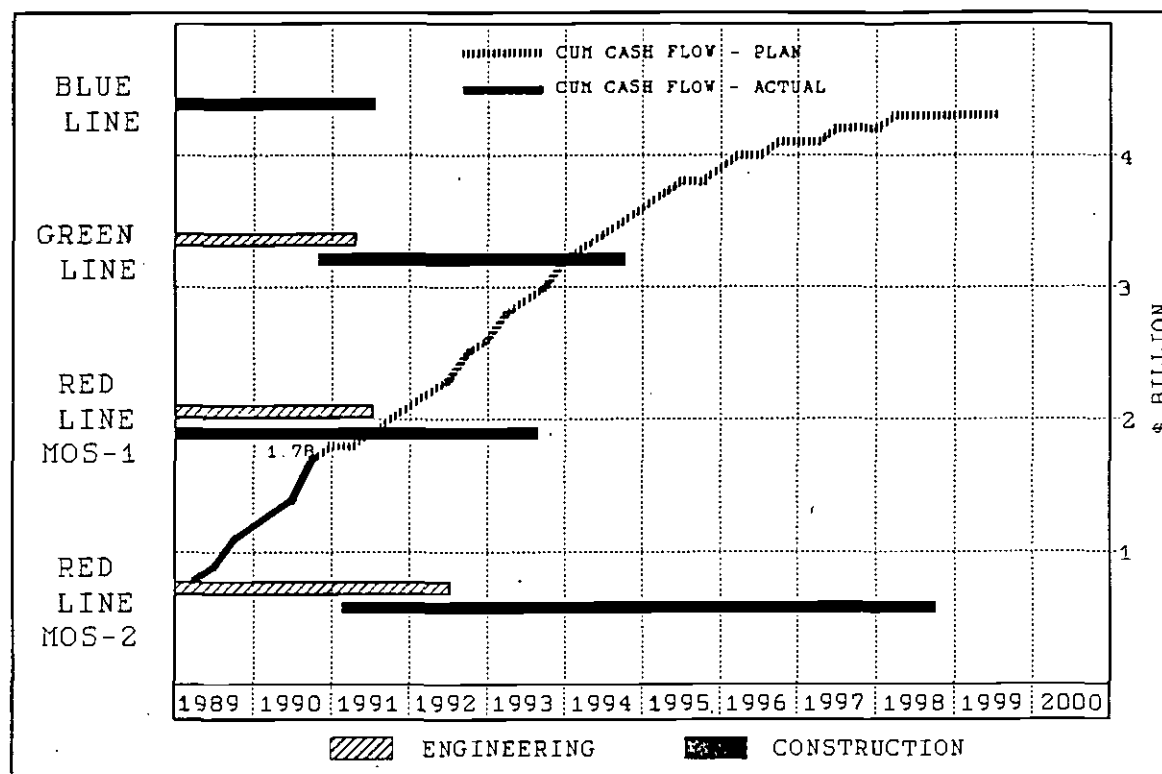


Figure 2 - Rail Construction Plan

Figure 3 shows 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 MILLIONS)										
	BLUE LINE		GREEN LN		RED LINE MOS-1		RED LINE MOS-2		TOTAL PROGRAM	
	\$	%	\$	%	\$	%	\$	%	\$	%
UMTA					696	48	667	46	1363	31
STATE					214	15	185	13	399	9
LOCAL (PROP A)	877	100	599	100	228	16	440	30	2144	49
BENEFIT ASSESSMENT					130	9	58	4	188	5
CITY OF LOS ANGELES					86	6	96	7	182	4
UNALLOCATED FCST					96	6	—		96	2
TOTAL	877*	100	599	100	1450**	100	1446	100	4373	100
* CONSISTS OF LIGHT RAIL LINE (\$847) AND MC-5 WORK (\$30)										
** LRT PORTION INCLUDED IN BLUE LINE (R01) FORECAST										

Figure 3 - Rail Construction Funding Sources

PROGRAM SCHEDULE

The scheduled Revenue Operations Date for the remaining portion of the Metro Blue Line (Seventh and Flower station to Pico Station) is June 30, 1991. Current schedule forecasts indicate that an earlier opening date is realistic.

The Metro Green Line is currently scheduled for Revenue Operations in October 1994. The previous report (September 1990) indicated the project was 90 days behind schedule. Currently, that has been improved to only 58 days behind schedule due to refinements in the interface schedule between the Rosecrans/Aviation & Kramer Bridge contract and the El Segundo Trackwork Installation. Issues with the Southern California Edison Company (SCE) in the area of the Kramer property, and continuing delays in completion of civil and systems design packages are still being resolved to meet the Revenue Operations Date of October 1994. Issues with the SCE will be presented in November 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. 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.

1 YEAR OUTLOOK

PROJECT SCHEDULE STATUS / KEY EVENTS
TOTAL PROGRAM

90/91

DATA DATE: 26 OCT 90

	AUG 90	SEP	OCT	NOV	DEC	JAN 91	FEB	MAR	APR	MAY	JUN	JUL
60% Design Submittal				1	2	1			3	1		1
85% Design Submittal				1		2		1		1		2
100% Design Submittal	1	3	2	6	2	3						1
TOTAL	1	3	2	8	4	6		1	3	2		4
CR Camera Ready	2	2	1	5	3	10	2		2			
AD Advertise	4	2		1	4	2	4	1	2		1	
BD Bid Due	2	2		2	1		2		2			
AW Award	1	2	2	1	2	5	1	2	3	4	1	3
RE Real Estate					2			1	2	2		
NTP Notice to Proc.		1	2	1	2	5	1	1	4	1	2	2
MFG Manufacturing												
SD Delivery Start												
FD Delivery Finish												
VT Vehicle Testing												
VA Vehicle Arrival												
LID Liquid. Milest.	2		4	2	3	3	5	6	2	8	1	4
INT Interfc. Milest.					2	2	2	2	4	1	2	2
CC Contract Complt.			2									

Figure 4

REAL ESTATE ACQUISITIONS

To date, six hundred and sixteen (616) real estate parcels have been identified as required for the total program. Of this total, one hundred and forty-four (144) are not yet available for construction. The lack of real estate entry 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. The RCC is taking action to reduce or eliminate any adverse impacts to the schedule because of these possible delays in real estate entry/acquisition. 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	34	33	NA	NA	4	8	26
MOS-1	94	94	94	94	22	94	0
MOS-2	65	27	3	7	2	0	65
TOTAL	616	383	254	360	51	472	144

Figure 5 - Real Estate Acquisition Status Summary

RAIL CONSTRUCTION CORPORATION STAFF DEVELOPMENT

Authorized staff level for the RCC is one hundred twenty seven (127). Presently, sixty-six (66) positions are filled with regular full time staff and fourteen (14) positions are filled with acting, contract, or temporary employees. Active recruitment continues for the unfilled positions. Staff levels are illustrated in Figure 6.

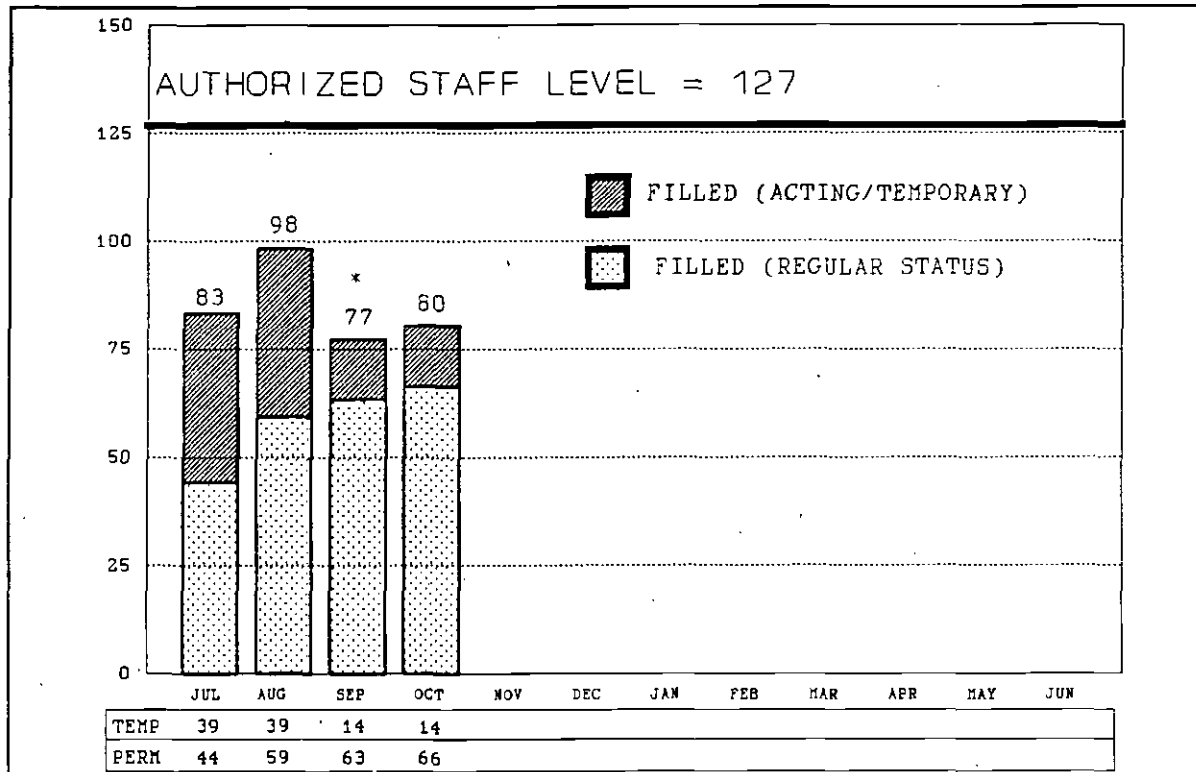


Figure 6 - RCC Staff Levels

* The acting/temporary number was revised from 39 last month to 14 to exclude SCRTD staff supporting the transition process.

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 25%, which exceeds the goal of 20% maximum. The prime reason for this apparent overrun is the Metro Red Line MOS-1 project with a forecast total project administration cost of 34% of the total project. The percentage includes all costs previously expended by the SCRTD when the project was under SCRTD management.

Staff costs are projected at 5% of total program costs. This exceeds the corporate goal of 4%. This increase is attributable to the Metro Red Line, MOS-1 and MOS-2, staffing. Plans are being made to reduce and control this cost. Figure 7 illustrates the forecast figures for each project and for the 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	657,487	75%	410,764	69%	742,974	51%	944,834	65%	2,756,059	63%	
RIGHT-OF-WAY	55,592	6%	35,096	6%	139,501	10%	76,734	5%	306,923	7%	
SERVICES:											
ENGINEERING/DESIGN	69,587	8%	49,258	8%	227,776	16%	78,797	5%	425,418	10%	
CONSTRUCTION MGMT.	90,722	10%	35,877	6%	140,214	10%	140,383	10%	407,196	9%	
STAFF	17,655	2%	19,760	3%	98,848	7%	67,411	5%	203,674	5%	4%
OTHER	15,142	2%	5,830	1%	19,756	1%	2,047	0%	42,775	1%	
SUBTOTAL	193,106	22%	110,725	18%	486,594	34%	288,638	20%	1,079,063	25%	20%
RESERVE	963	0%	59,041	10%	80,950	6%	136,226	9%	277,180	6%	
REVENUE	(29,877)	-3%	(16,626)	-3%	0	0%	0	0%	(46,503)	-1%	
GRAND TOTAL	877,271	100%	599,000	100%	1,450,019	100%	1,446,432	100%	4,372,722	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.

The trend is increasing slightly but still within an acceptable range.

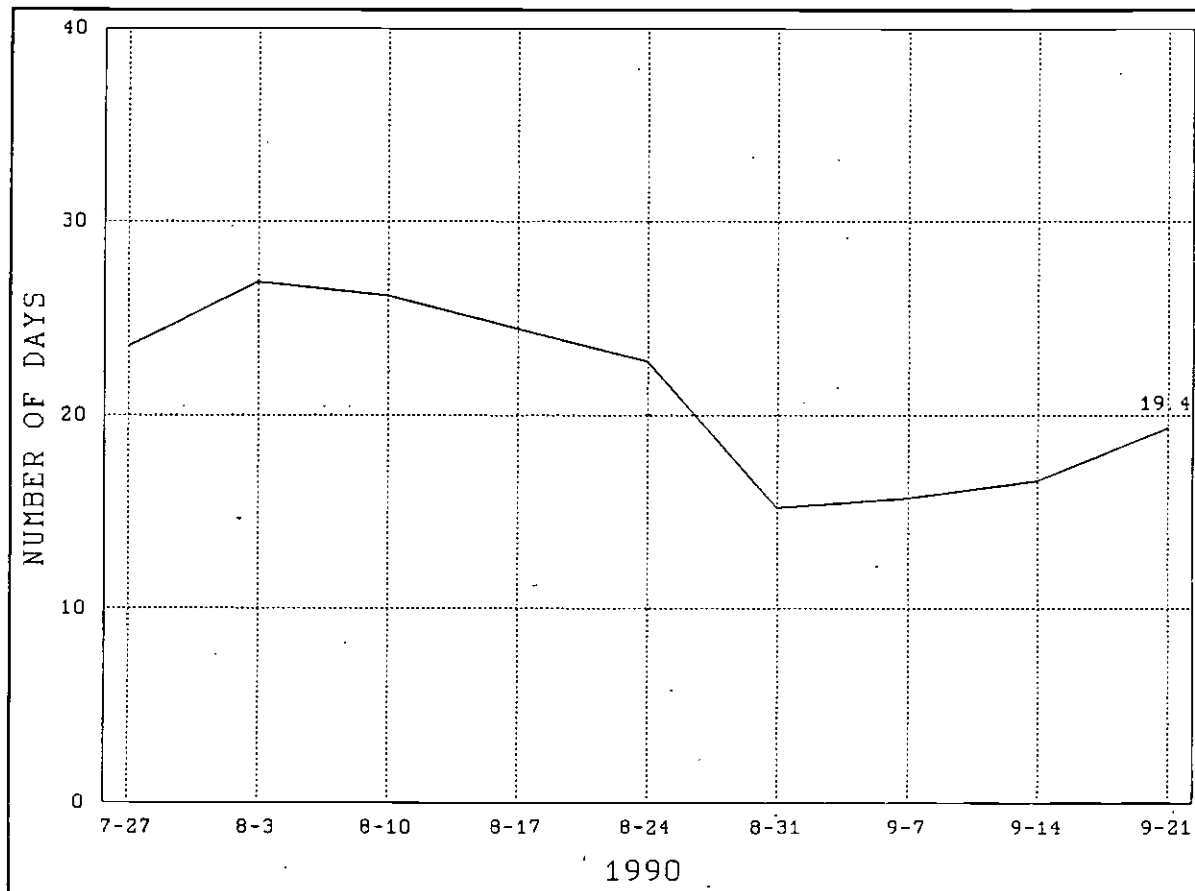


Figure 8 - Average Days to Invoice Payment
(4 week moving average)

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. This figure includes the MC-5 contracts valued at \$30,322,000.

Costs totalling \$763,915,923 (87% of the budget) have been incurred to date and \$813,656,000 (93% of the budget) has been committed during the same time period.

PROJECT SCHEDULE

Construction progress through October 1990, was measured at 98.6% compared to the planned progress of 98.6%. Status of the remaining work is as follows:

Pico to Anaheim

Traction Power Substation (TPSS) retrofit work continues to progress although the contractors have been delayed due to access scheduling conflicts with operational considerations. All outstanding TPSS related issues will be resolved in November 1990, and all remaining work will be complete by month-end December 1990.

Seventh and Flower

Systems work in the station area of the Seventh and Flower location continues to be delayed due to access and problems uncovered while pulling conduit (duct bank was found to be blocked or damaged). This is not expected to affect the Revenue Operations Date. The H825 (Transit Signalling) contract is completed.

The H832 contract (Cable Transmission System) has installed all fiber optics cables and has picked up telephone installation work from the MOS-1 contractor.

Safety Evaluation

Due to several fatalities that occurred over the past month, TRANSCAL is participating in a full scale safety evaluation of the system. The initial study is underway and will result in a presentation to the Commission on November 12, 1990. TRANSCAL has developed a work plan for the estimated length of the effort including implementation of any potential corrective action directed by the Commission. The initial evaluation is progressing according to schedule.

AREAS OF CONCERN

1. SEVENTH AND FLOWER DELAYS

Problem: Access, lack of permanent power, and delays due to Red Line contracts A165/A167 prevented Blue Line contractors from mobilizing on schedule. Design problems encountered with interposing relays created additional delays to completing LRT systems work on schedule.

Action: RCC continues to assist in resolving those issues which are critical to the R.O.D. by interfacing between the civil and systems contractors in order to phase the work as efficiently as possible. A fully coordinated effort will be managed by RCC in association with the Blue Line and Red Line Project Managers.

2. COST GROWTH IN THE SCADA, CABLE TRANSMISSION SYSTEM, AND SAFETY, SECURITY, COMMUNICATION SYSTEMS (SS&CS) CONTRACTS.

Problem: 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 is tracking these contracts on a weekly basis. All growth related to Seventh and Flower access delays, Third Party requests, and Safety Evaluation activities are tracked separately. These items will be compiled and presented to the Commission in a working session to be held during November 1990.

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

STATUS DATE: 10/26/90

(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	497,194	608,859	620	557,379	3,650	529,273	23,344	495,189	19,524	494,145	610,109	1,250
PROFESSIONAL SERVICES	121,494	186,778	0	164,820	3,288	174,225	3,288	174,223	3,136	171,827	186,778	0
REAL ESTATE	39,847	55,592	0	49,463	3,778	54,164	3,778	53,877	1,555	50,358	55,592	0
UTILITY/AGENCY FORCE ACCOUNTS	50,177	47,378	0	44,434	4,285	55,534	4,378	51,593	4,481	50,816	47,378	0
SPECIAL PROGRAMS	0	6,328	0	0	0	0	0	0	0	0	6,329	1
PROJECT RESERVE	64,129	2,213	0	0	0	0	0	0	0	0	962	(1,251)
PROJECT REVENUE	(1,489)	(29,877)	0	0	0	460	(1,958)	(3,230)	(1,958)	(3,230)	(29,877)	0
GRAND TOTAL PROJECT	771,352	877,271	620	816,096	15,001	813,656	32,830	771,652	26,738	763,916	877,271	0

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

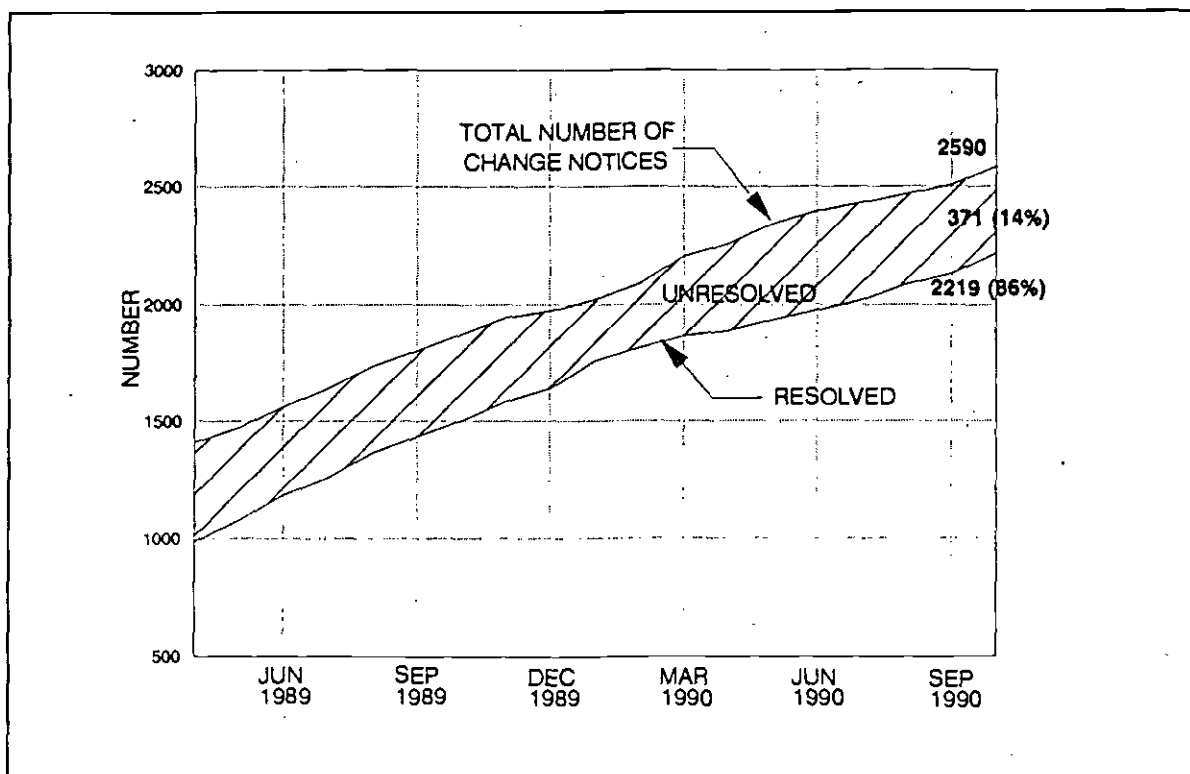
STATUS DATE: 10/26/90

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	497,194	578,894	0	554,439	3,549	526,674	23,015	493,012	19,195	491,968	580,144	1,250
PROFESSIONAL SERVICES	121,494	183,458	0	164,820	3,288	174,225	3,288	174,223	3,136	171,827	183,458	0
REAL ESTATE	39,847	52,065	0	49,463	3,778	54,164	3,778	53,877	1,555	50,358	52,065	0
UTILITY/AGENCY FORCE ACCOUNTS	50,177	47,378	0	44,434	4,285	55,534	4,378	51,593	4,481	50,816	47,378	0
SPECIAL PROGRAMS	0	2,728	0	0	0	0	0	0	0	0	2,729	1
PROJECT RESERVE	64,129	1,713	0	0	0	0	0	0	0	0	462	(1,251)
PROJECT REVENUE	(1,489)	(19,287)	0	0	0	460	(1,958)	(3,230)	(1,958)	(3,230)	(19,287)	0
GRAND TOTAL PROJECT	771,352	846,949	0	813,156	14,900	811,057	32,501	769,475	26,409	761,739	846,949	0

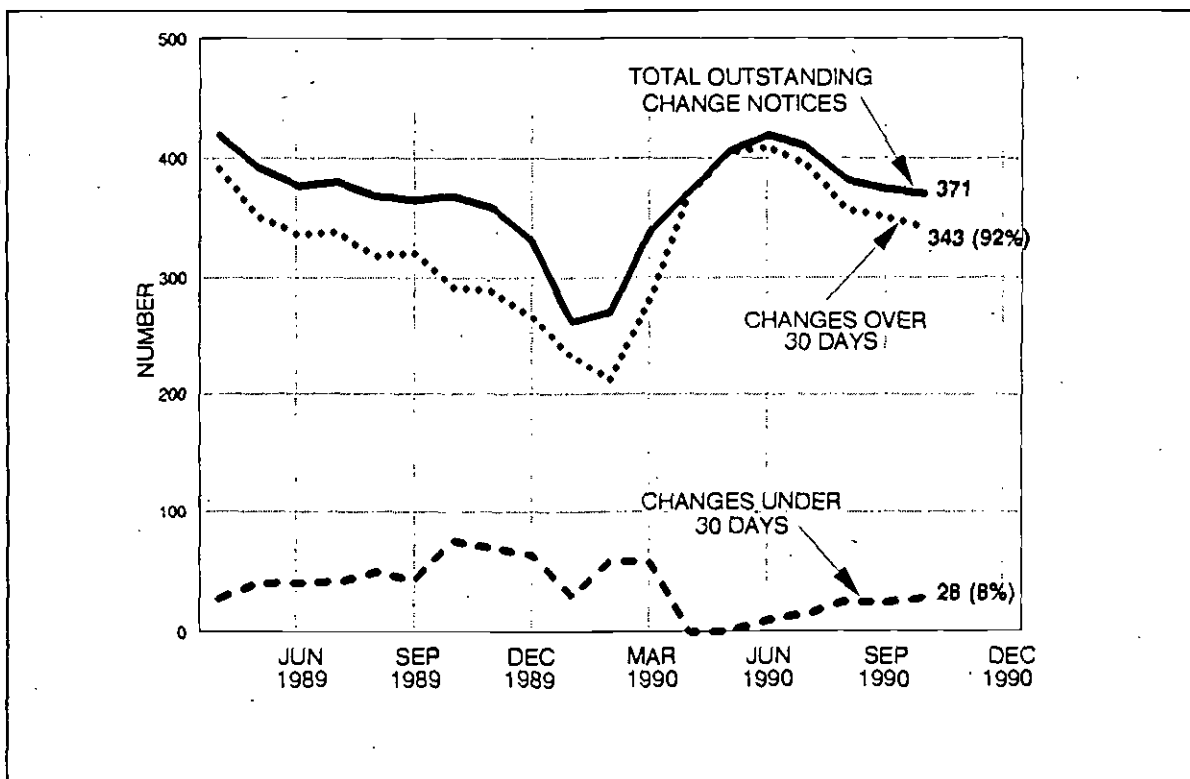
RAIL CONSTRUCTION CORPORATION
PROJECT COST REPORT - METRO BLUE LINE
(MCS PORTION)
SUMMARY BY COST ELEMENT
(IN THOUSANDS)

STATUS DATE: 10/26/90

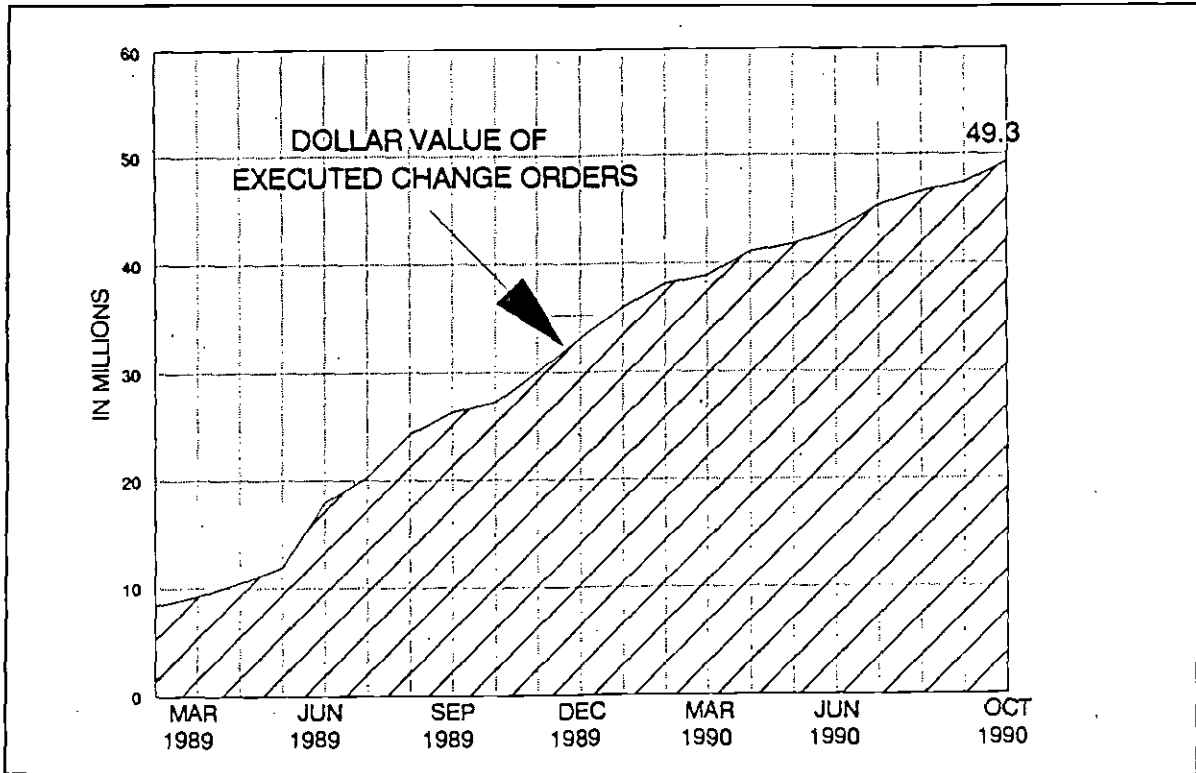
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
PROJECT: RH1 MCS RR RELOC.	BUDGET		AUTHORIZED FOR EXPENDITURE		COMMITMENTS		INCURRED COST		EXPENDITURES		FORECAST	
DESCRIPTION	ORIGINAL	CURRENT	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	CURRENT	(11-2) VARIANCE
CONSTRUCTION	0	29,965	620	2,940	101	2,599	329	2,177	329	2,177	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	620	2,940	101	2,599	329	2,177	329	2,177	30,322	0



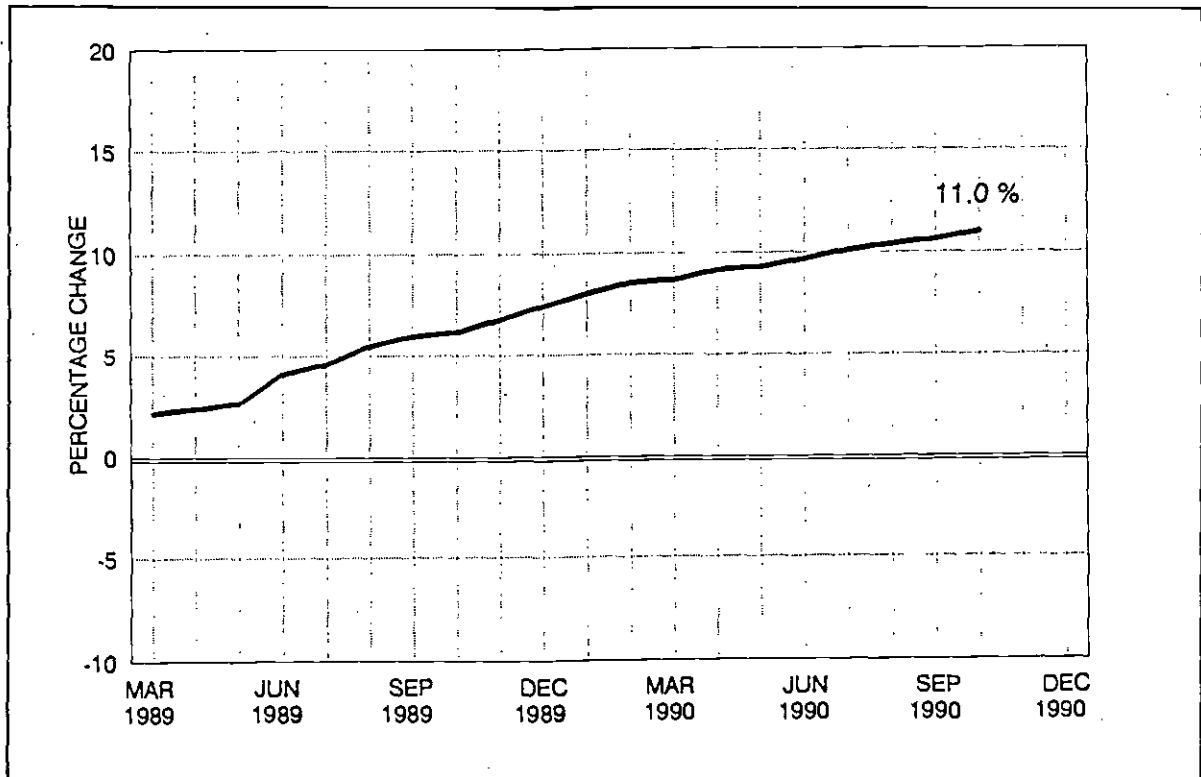
Change Notice Resolution



Change Activity Progress

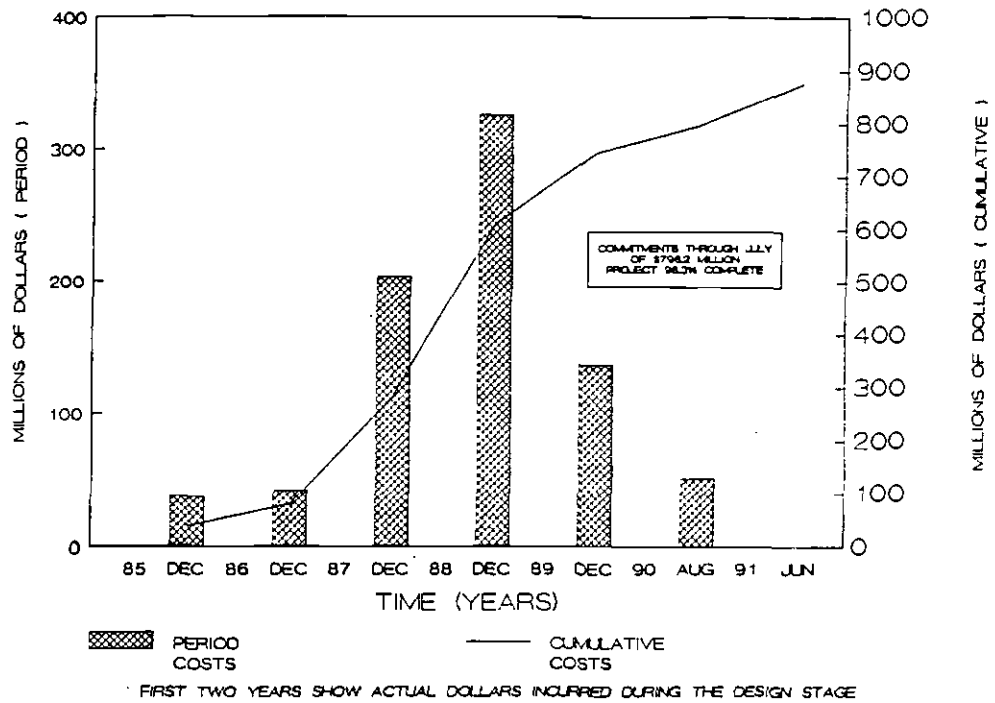


Total Value of Executed Change Orders

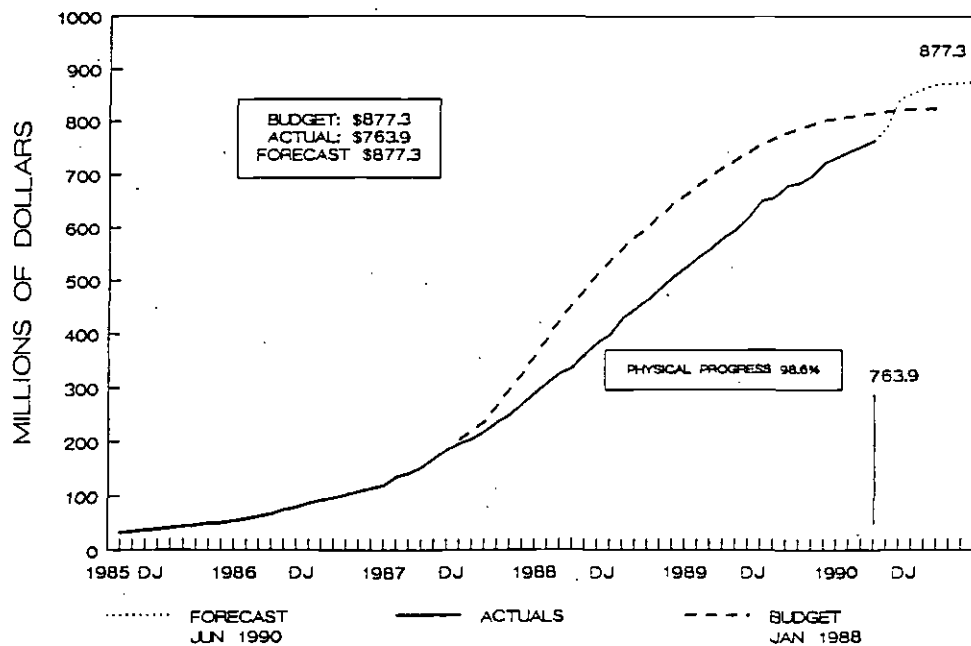


Change Order Dollars as a Percentage of Original Contract Award

METRO BLUE LINE COMMITTED COSTS

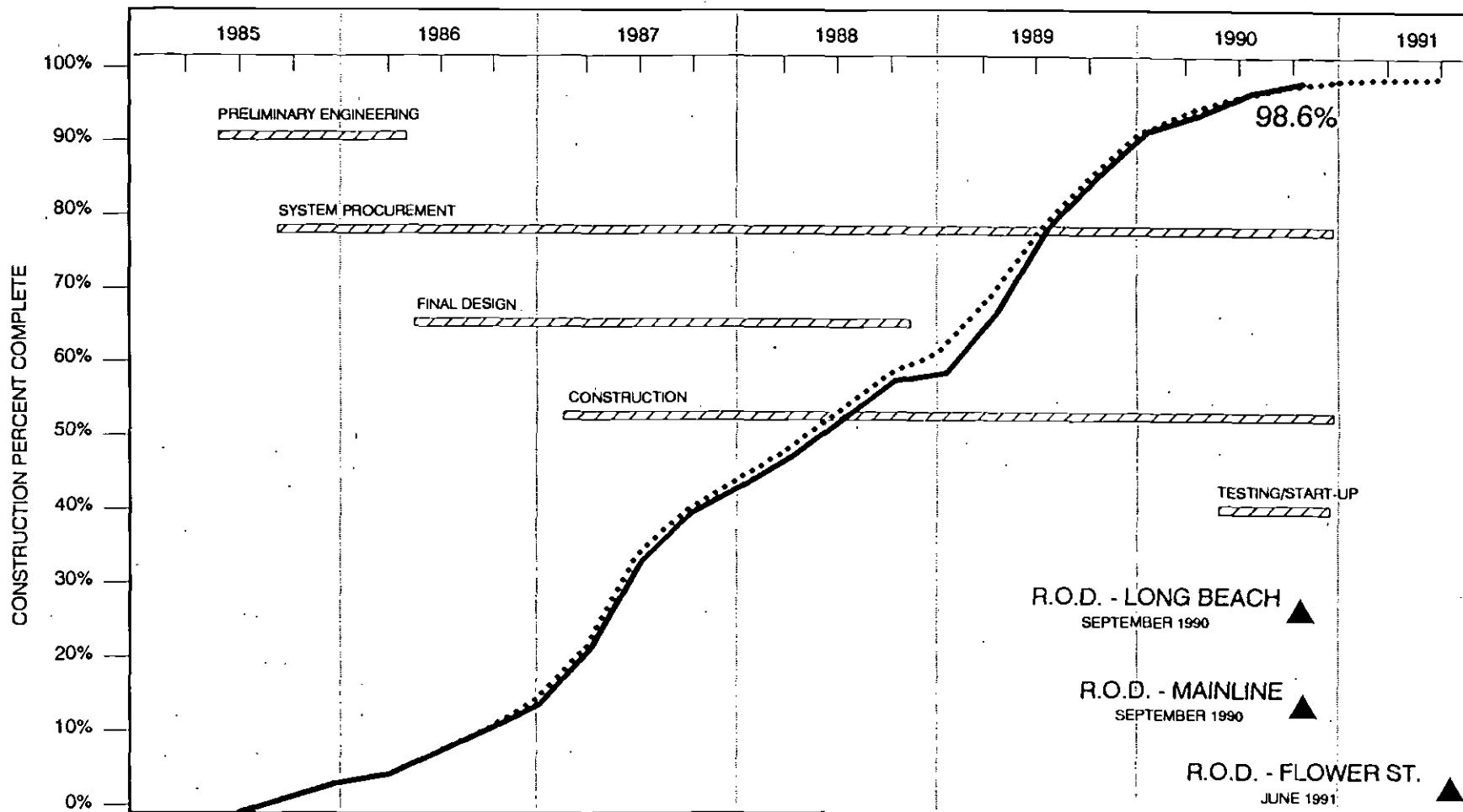


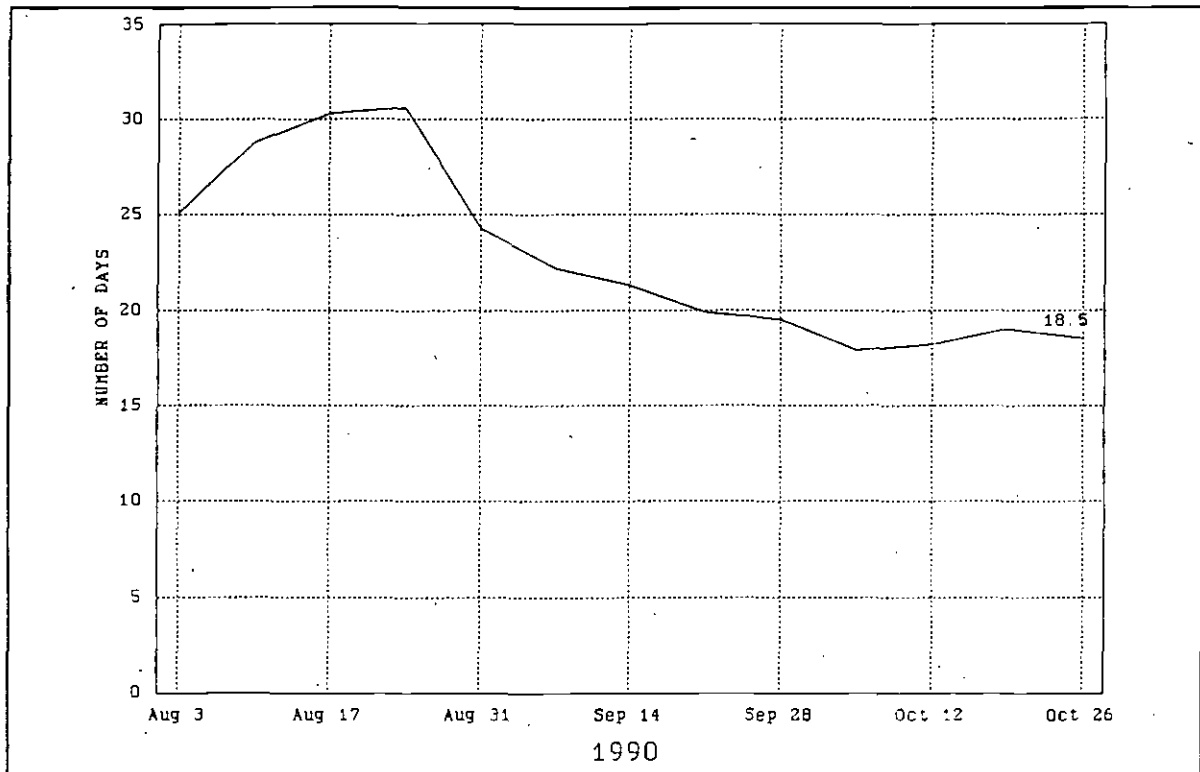
METRO BLUE LINE CASH FLOW PROJECTION



RAIL CONSTRUCTION CORPORATION METRO BLUE LINE EXECUTIVE SUMMARY SCHEDULE

STATUS DATE: 10/26/90





Average Days to Invoice Payment
(4 Week Moving Average)

The following is a list of the actual number of invoices and dollar amounts of invoice payments for the past three months.

Date	Number of Invoices	Invoice Amount
08/03/90	12	\$ 1,273,428
08/10/90	9	677,528
08/17/90	17	5,930,882
08/24/90	4	5,810,082
08/31/90	3	363,954
09/07/90	7	118,130
09/14/90	12	3,109,722
09/21/90	9	1,431,620
09/28/90	15	2,231,355
10/05/90	3	258,628
10/12/90	5	437,202
10/19/90	16	838,320
10/26/90	4	141,658

EXECUTIVE SUMMARY

The Master Schedule update, with a status date of October 26, 1990, indicates that the *project is now 58 days behind schedule*, a negative float reduction of 32 working days from the last update. This improvement is due to the fact that the interface between the Rosecrans/Aviation & Kramer Bridge contract (C0110) and the El Segundo Trackwork Installation contract was refined. The Project Critical Path now runs through third party utility relocations, the Utility Relocations and Foundations contract (C0101), the Elevated Guideway and Stations contract (C0100), Trackwork Installation (C0610), Automatic Train Control Installation and Testing (H1100), overall systems integration, testing, and pre-revenue service. 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. The first civil contract, Utility Relocation & Foundations (C0101), is in the bid/award cycle. The staff recommendation to award this contract to Brinderson Corporation, the low bidder, was approved by the RCC on October 22, 1990 and by the LACTC on October 24, 1990. It is anticipated that the contract will be awarded on November 1, 1990 and that the Notice to Proceed will be issued on November 26, 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 89% complete.* The current schedule indicates that the design portion of the Metro Green Line will be complete in the first quarter of 1991.

Currently, in the Century Freeway segment of the project *seven of the twelve civil contracts are under construction.* There are four contracts in the bid/award cycle and 1 is awaiting design completion. Of the four contracts in the bid/award cycle, one is scheduled for award in November 1990, one in December 1990 and the remaining two in January 1991.

Metro Green Line construction by Caltrans construction forces, based on actual physical work-in-place in the Century Freeway Segment, is currently *1.25%* 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.

A Project Budget of \$599 million was approved by the LACTC on October 10, 1990. This \$599 million budget includes the value for the construction of a mini-maintenance yard and 22 LRV's and it does not include the cost for the construction of the Aviation Boulevard Wye.

Out of the 20 parcels that are required for the start of construction on the Utilities Relocation & Foundations contract (C0101), *six have been acquired and the remaining 14 are in the final negotiation stage.* An additional 14 parcels have been certified in support of the Elevated Guideway & Stations contract (C0100) and the Rosecrans/Aviation & Kramer Bridges contract (C0110), with 12 parcels remaining for the right-of-entry to be acquired.

To-date no safety incidents have been reported as no RCC administered construction contracts have been awarded. Reporting on safety related issues is anticipated to begin in early 1991.

During October a Caltrans Integration Task Force was formed and established contacts with Caltrans personnel in District 7 Project Development and in construction field offices. Meetings are planned to introduce Caltrans field personnel to the OKA team, to familiarize them with our work, and to inform them of the critical nature of the LRT work.

The cashflow information indicates a total project expenditure to-date of \$54.2 million which represents 9% of the current total forecast of \$599 million. The project commitments to-date are \$101.1 million, of which \$16.8 million is for construction, i.e., Caltrans and procurement contracts.

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 to 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: The RCC met with Mr Bill Waddington, a Divisional Manager within SCE, to discuss the issue. At this time SCE is reviewing the problem and will get back to the RCC with comments.

2. 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 October 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. Once the schedule is produced, it will be analyzed to determine the effect on the current construction schedule. Obtaining AT&SF Railroad right-of-entry by January 1, 1991 is critical.

3. Metro Green Line Budget

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

Action: At the LACTC Board meeting on October 2, 1990 a budget of \$599 million was approved for the Metro Green Line project.

4. 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.

5. Finalization of Overall Project Scope

Concern: Decisions are required by the RCC regarding 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 were on the agenda for the RCC Board meeting October 22, 1990. Full resolution of this concern will take place after the elections scheduled for November 6, 1990.

6. 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. The reports stated that the RCC should construct the pole foundations for SCE. The RCC is reviewing the recommendations, after which they will develop a work plan on how they will proceed. The Environmental Protection Agency (EPA) must then approve all work plans.

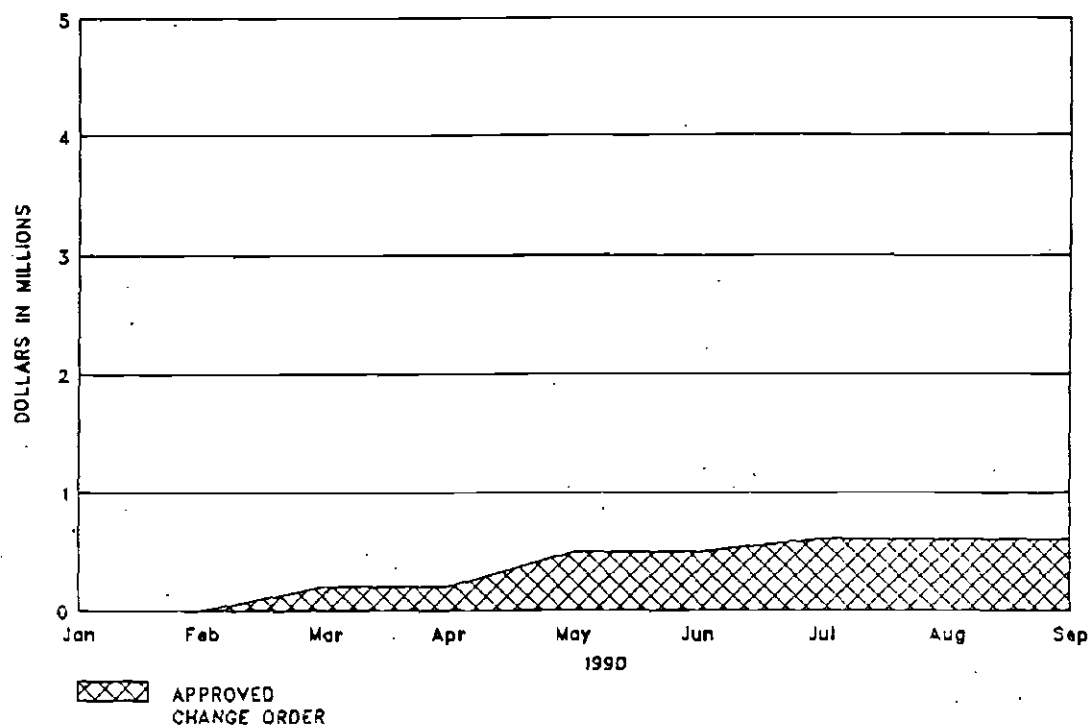
RAIL CONSTRUCTION CORPORATION
PROJECT COST REPORT - METRO GREEN LINE
SUMMARY BY COST ELEMENT

STATUS DATE: 10/26/90

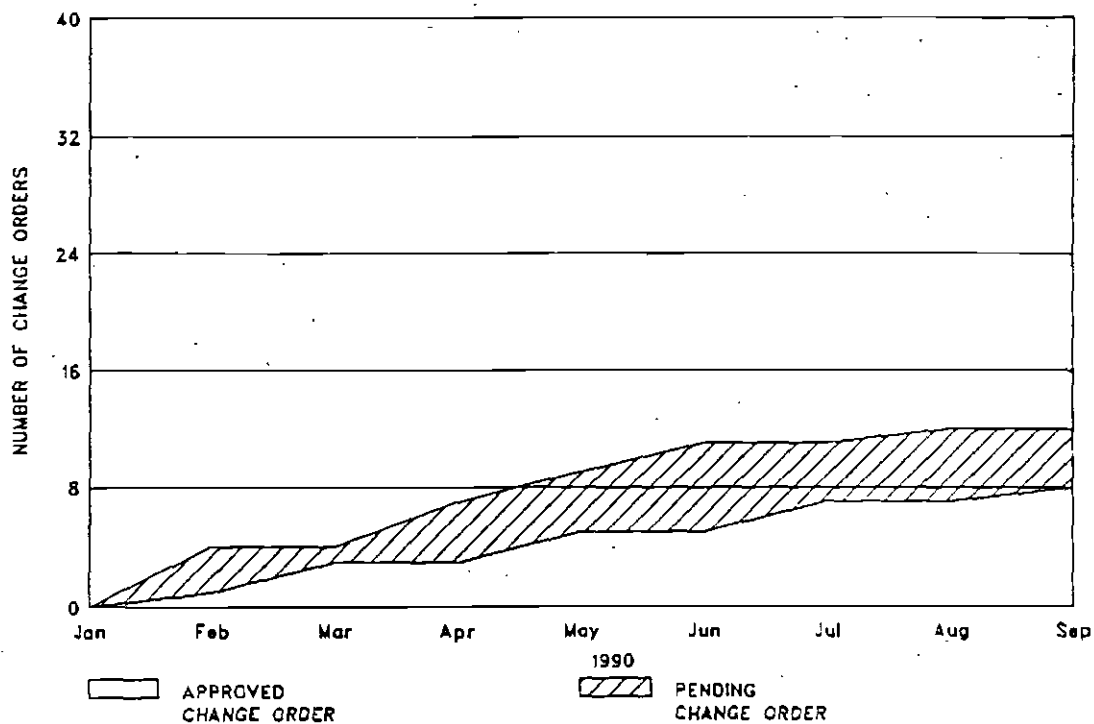
(IN THOUSANDS)

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	404,267	404,267	0	14,043	(153)	16,643	0	16,407	0	6,988	403,108	(1,159)
PROFESSIONAL SERVICES	110,295	110,295	0	32,695	1,561	71,997	27,965	63,110	3,290	32,683	108,195	(2,100)
REAL ESTATE	35,096	35,096	0	10,759	147	9,279	80	8,756	80	8,756	35,096	0
UTILITY/AGENCY FORCE ACCOUNTS	7,656	7,656	6,266	7,091	0	3,049	0	289	0	6,064	7,656	0
SPECIAL PROGRAMS	2,530	2,530	0	0	0	100	0	80	0	0	2,530	0
PROJECT RESERVE	55,782	55,782	0	0	0	0	0	0	0	0	59,041	3,259
PROJECT REVENUE	(16,626)	(16,626)	0	0	(83)	(963)	(41)	(297)	(42)	(296)	(16,626)	0
GRAND TOTAL PROJECT	599,000	599,000	6,266	64,588	1,472	100,105	28,004	88,345	3,328	54,195	599,000	0

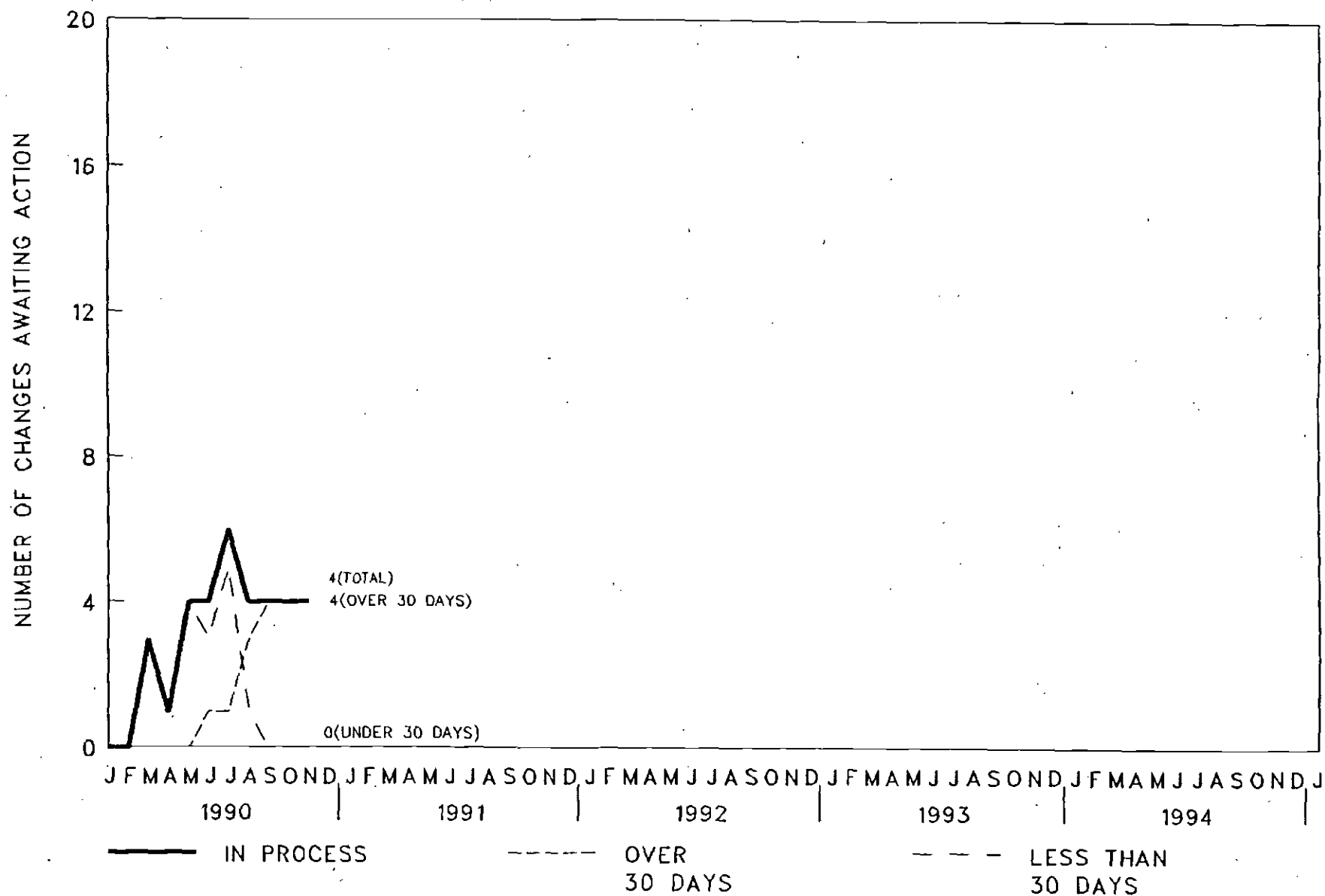
VALUE OF APPROVED CHANGE ORDERS



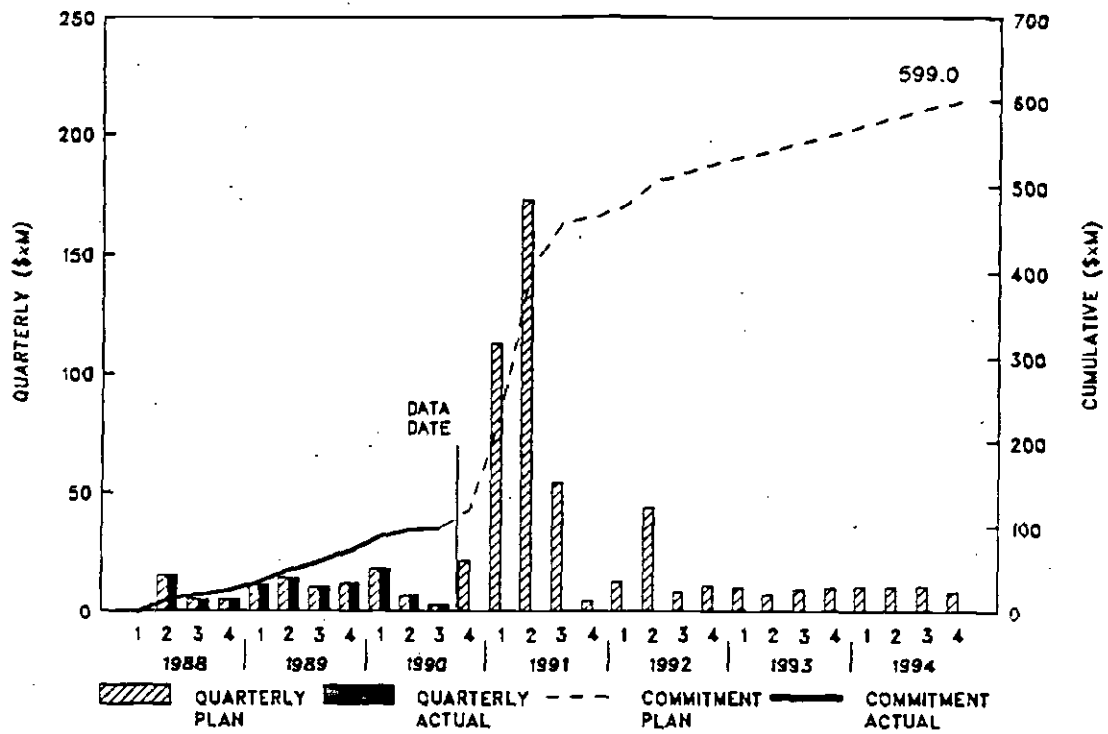
CHANGE ORDER RESOLUTION



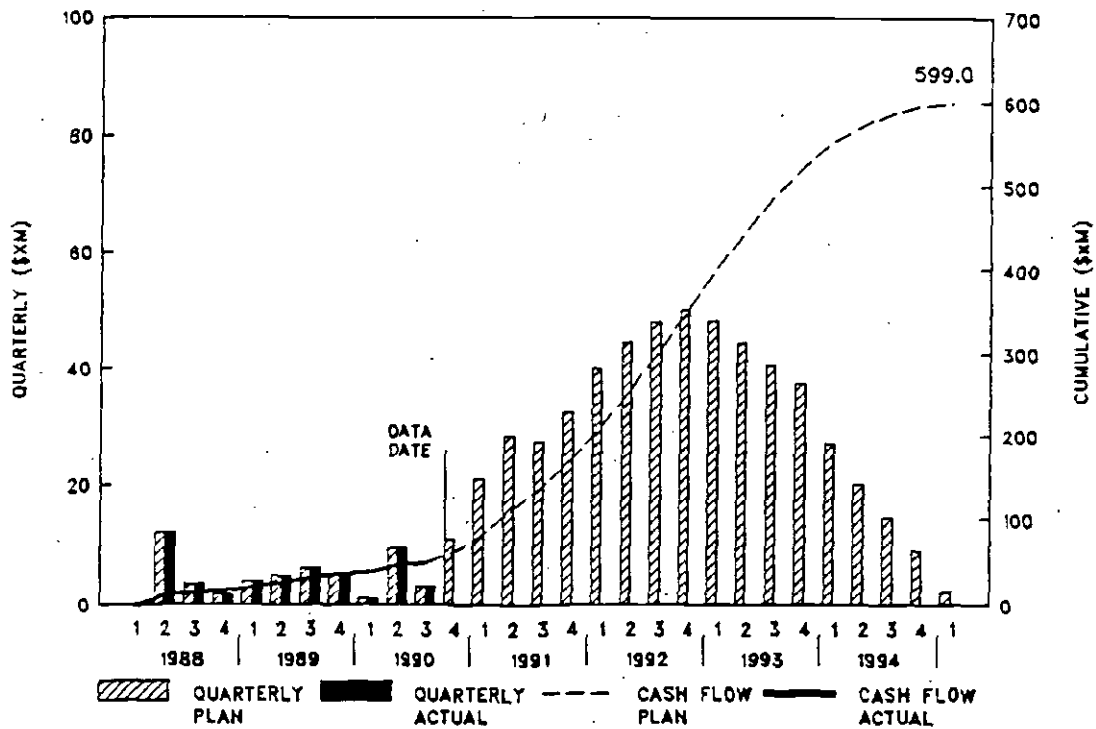
METRO GREEN LINE Change Activity Progress



PROJECT COMMITMENTS

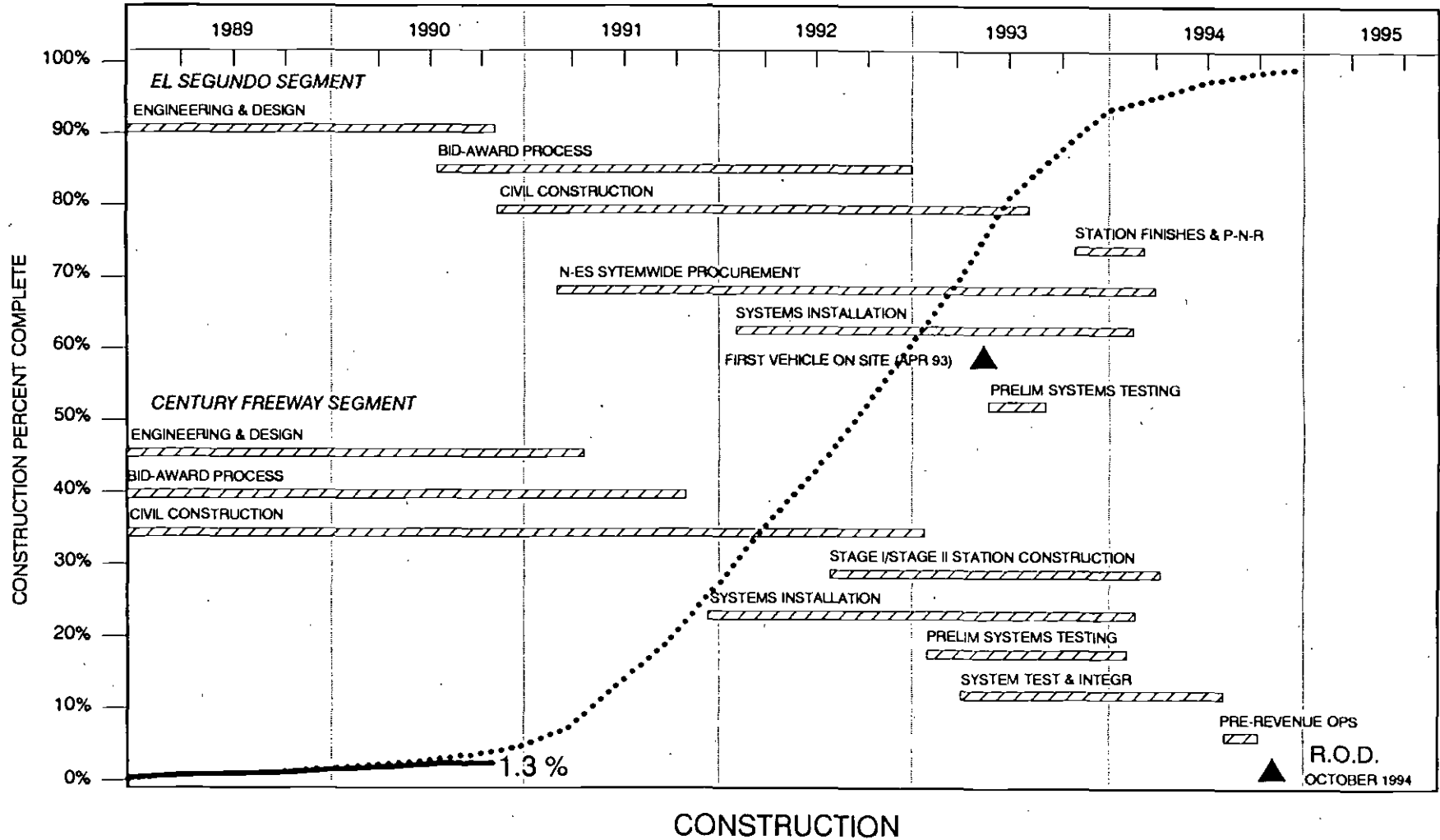


PROJECT CASH FLOW



RAIL CONSTRUCTION CORPORATION METRO GREEN LINE EXECUTIVE SUMMARY SCHEDULE

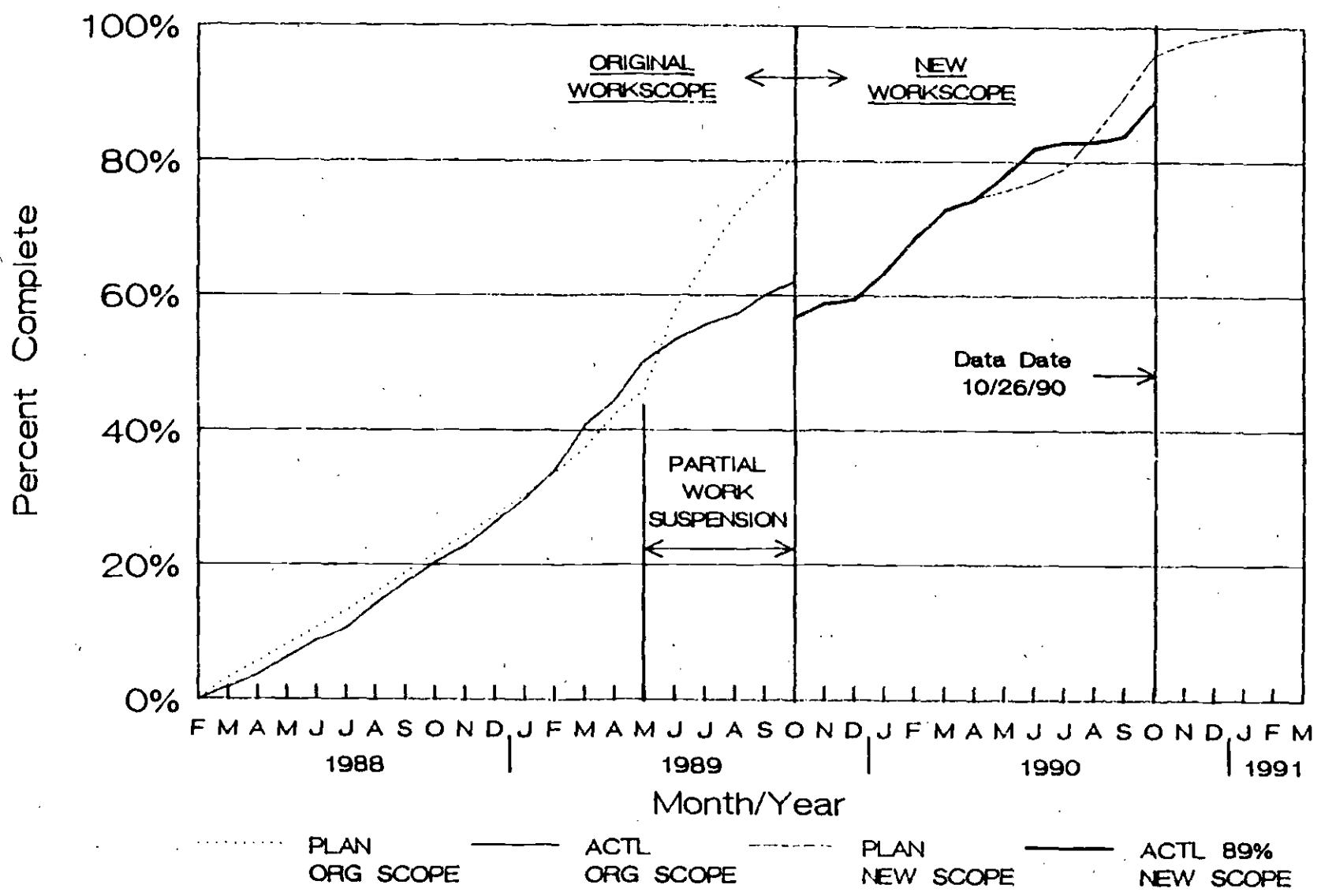
STATUS DATE: 10/26/90



METRO GREEN LINE

OCTOBER 1990

TRANSCAL II Design Engineering Progress Curve



1 YEAR OUTLOOK

GREEN LINE PROJECT SCHEDULE STATUS / KEY EVENTS TOTAL

R23

90/91

DATA DATE: 26 OCT 90

	OCT	NOV	DEC	JAN 91	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
60% Design Submittal												
85% Design Submittal												
100% Design Submittal	2	6	2	2								
TOTAL	2	6	2	2								
CR Camera Ready	1	5	2	9	1							
AD Advertise			3	1		1	1					1
BD Bid Due												
AW Award		1	1	2	1	2	1	1	1	1	1	2
RE Real Estate												
NTP Construction		1	2	2		1	3			1	1	3
MFG Veh. Mfg. NTP									1			
VT Vehicle Testing												
VA Vehicle Arrival												
LIQ Liquid. Milest.												
CC Contract Complt.	1								1			

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

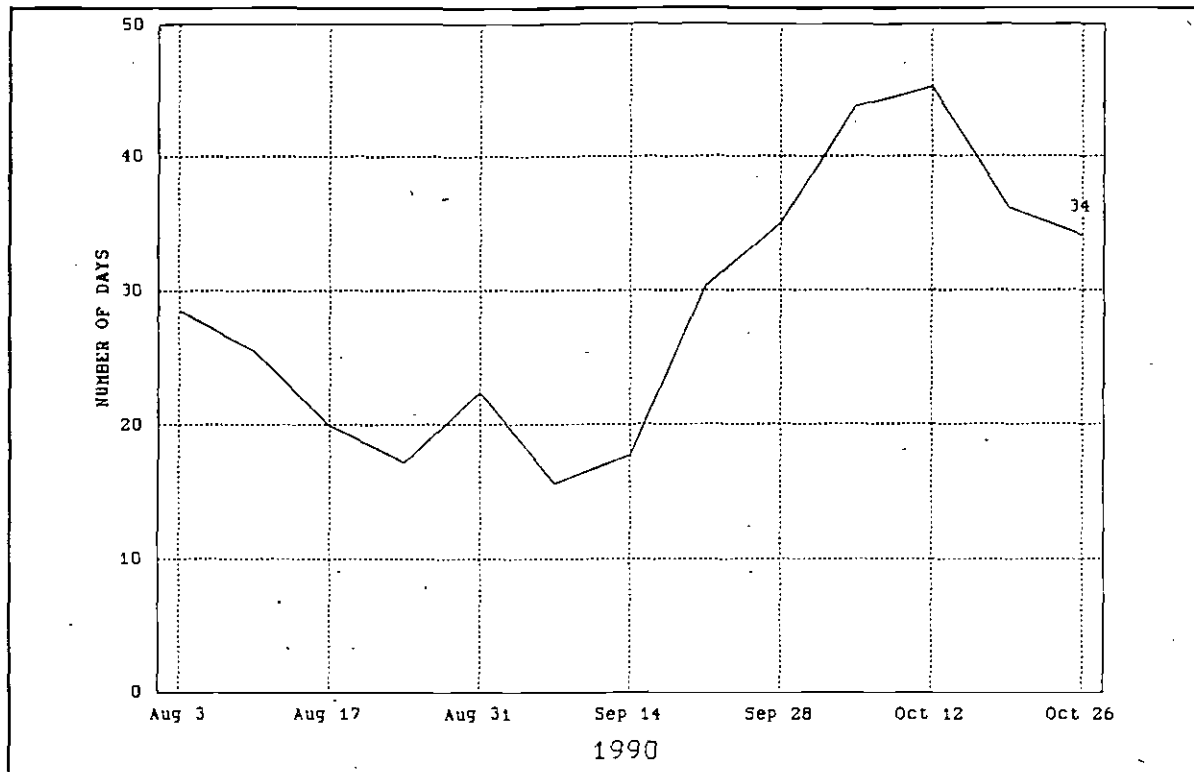
Real Estate - Status Summary

CCU	NO. OF PARCELS	NUMBER CERT'D	JUST COMP APPROVED	OFFERS MADE	AGREEMENT SIGNED	CONDEM- NATION	PARCELS AVAIL.	PARCELS NOT AVAIL.	CONSTRUCT NTP DATE
C100	8	8	N/A	N/A	N/A	1		8	03/25/90
C101	20 *	19	N/A	N/A	N/A	3	6	14	12/26/90
C110	3	3	N/A	N/A	N/A			3	02/22/91
C400	3	3	N/A	N/A	N/A		2	1	03/29/91
TOTAL	34	33	N/A	N/A	N/A	4	8	26	

Note: "N/A" Activities identified above are not directly related to required Right Of Entry for the contract packages specified.

Certification No. 510 was listed in previous reports as being available. It is now scheduled to be available November 1, 1990. Certification No. 504 became available this reporting period. Both certifications are associated with contract package C0101.

* Number includes exhibit A, railroad right of entry



Average Days to Invoice Payment
(4 Week Moving Average)

The following is a list of the actual number of invoices and dollar amounts of invoice payments for the past three months.

Date	Number of Invoices	Invoice Amount
08/03/90	0	0
08/10/90	5	\$ 239,311
08/17/90	1	1,410,897
08/24/90	0	0
08/31/90	0	0
09/07/90	0	0
09/14/90	3	327,891
09/21/90	4	35,187
09/28/90	1	308,820
10/05/90	3	1,420,998
10/12/90	0	0
10/19/90	0	0
10/26/90	4	1,766,389

EXECUTIVE SUMMARY

As of October 26, 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 place the top concrete level and lay the rail. Contract 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 69% complete. 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 forecast is \$1,450 million. Current contingency for MOS-1 is listed in the Revision 7F financial plan at \$80 million. This is a change to the forecast based on the RCC's updated estimate to complete.

AREAS OF CONCERN

1. Contract A136, Union Station Stage II

Concern: Contract A136 was given NTP on October 22, 1990. This delay will potentially impact the follow-on contractors.

Action: A change notice which will revise certain critical interfaces of the Contract A136 work has been drafted by PDCD. Negotiations are under way and it appears that the contractor will support earlier turnover dates of the Train Control Room to A620 and A640. This change will be finalized by November 21, 1990.

2. Contract A141, Line , U/S to 5th/Hill and Civic Center Station

Concern: The AR North tunnel was scheduled for completion by 10/22/90 to give access to the A610 trackwork contractor. Completion is not expected until mid-November.

Action: Arrangements were made to provide access to the southern half of the tunnel on 10/29/90, and the A610 contractor is placing track pad. Additional access will be made in advance of A610 needs.

3. Contract A640, Communications

Concern: The relocation of the Rail Control Center now requires an immediate decision to allow for completion of communications design.

Action: The RCC will present this issue to the RCC Board of Directors in November.

4. 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: Booz Allen Hamilton is working with Breda to improve ABB propulsion work and adjustments are being made to the test sequence to avoid negative impacts.

5. Contract A130, Yard Leads and Transfer Zone

Concern: Slow progress in reconstruction of the YL Tunnel damaged by the July 13, 1990, fire is delaying tunnel construction which may ultimately delay access to the trackwork contractor.

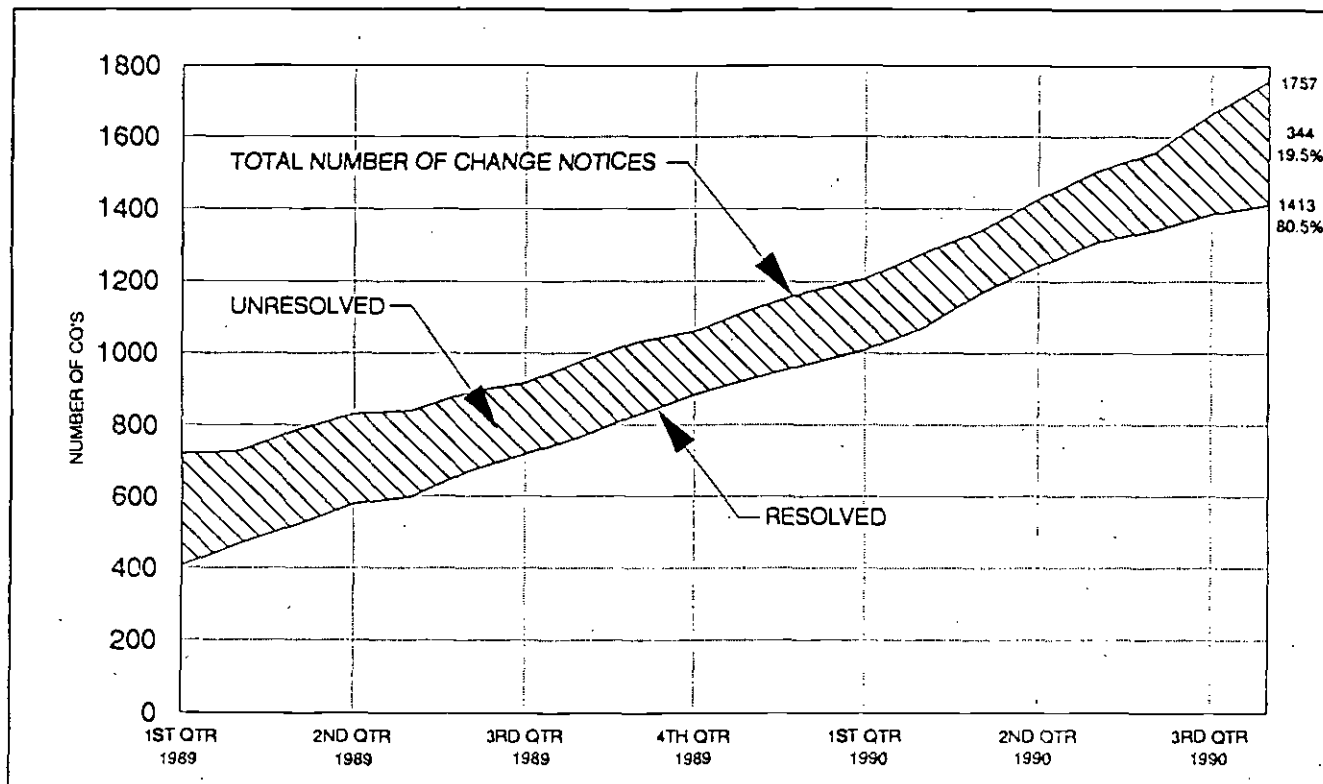
Action: Multiple crews are working from both ends of the tunnel at A130 to complete reconstruction. Negotiations are in progress with the trackwork contractor to mitigate some of the delays caused by late access dates.

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

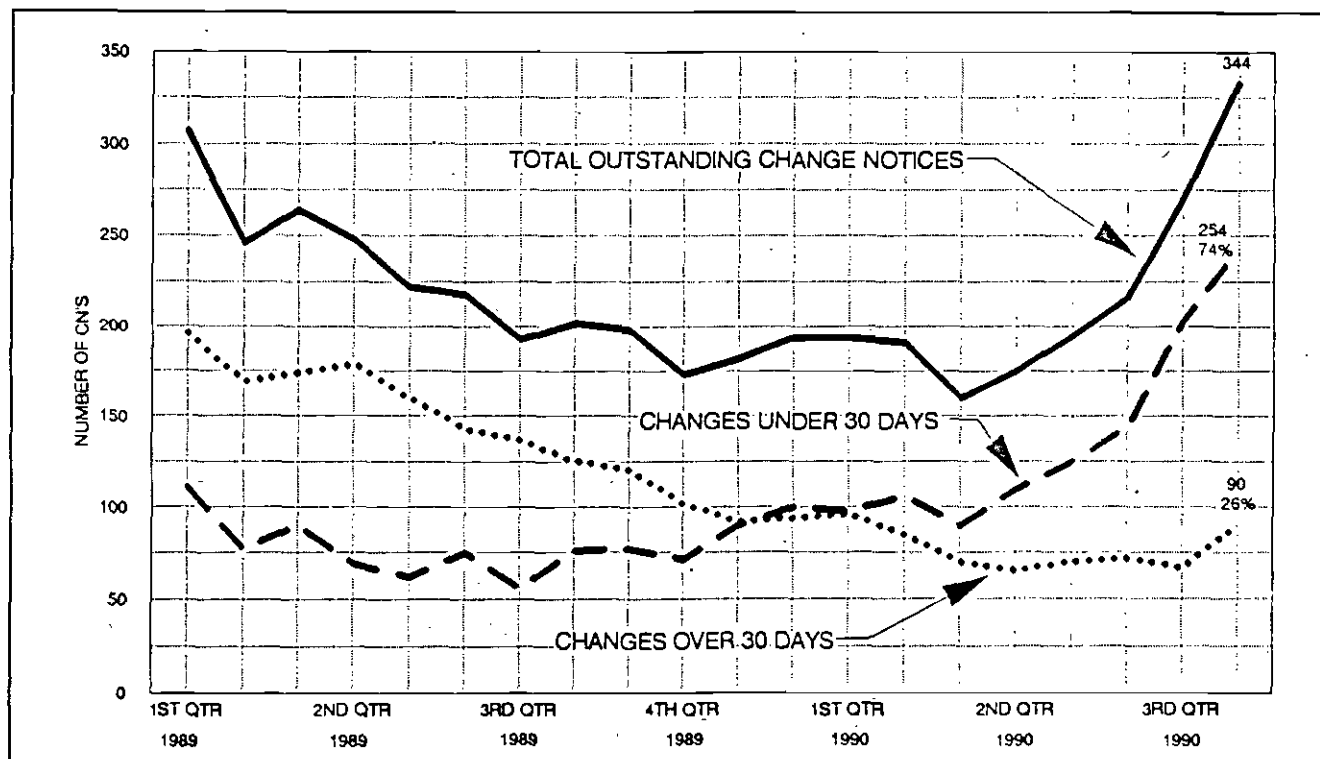
STATUS DATE: 10/26/90

(IN THOUSANDS)

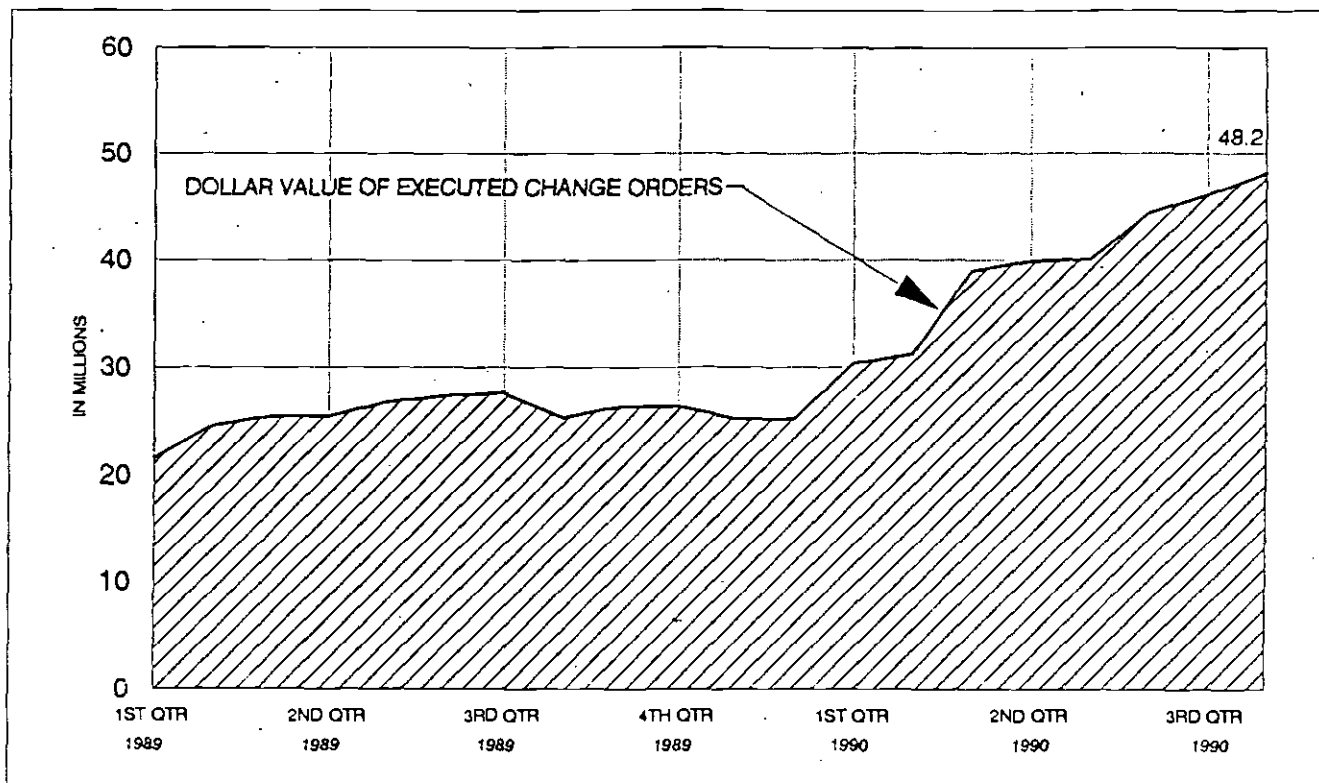
PROJECT: R80 METRO RED LINE	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	BUDGET		AUTHORIZED FOR EXPENDITURE		COMMITMENTS		INCURRED COST		EXPENDITURES		FORECAST	
DESCRIPTION	ORIGINAL	UMTA APPROVED	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	CURRENT	(11-2) VARIANCE
CONSTRUCTION	689,213	698,747	62,204	529,042	2,610	566,877	10,508	450,210	19,016	457,420	729,307	30,560
PROFESSIONAL SERVICES	400,557	436,952	0	357,754	0	360,114	0	0	0	357,754	485,646	48,694
REAL ESTATE	92,363	131,047	0	109,914	0	109,914	0	0	0	105,315	139,501	8,454
UTILITY/AGENCY FORCE ACCOUNTS	18,670	14,165	0	10,128	0	10,128	0	0	114	8,529	13,667	(498)
SPECIAL PROGRAMS	1,123	948	0	508	0	653	0	0	196	196	948	0
PROJECT RESERVE	47,974	72,041	0	0	0	0	0	0	0	0	80,950	8,909
PROJECT REVENUE	0	0	0	0	0	0	0	0	0	(1,694)	0	0
GRAND TOTAL PROJECT	1,249,900	1,353,900	62,204	1,007,346	2,610	1,047,686	10,508	450,210	19,326	927,520	1,450,019	96,119



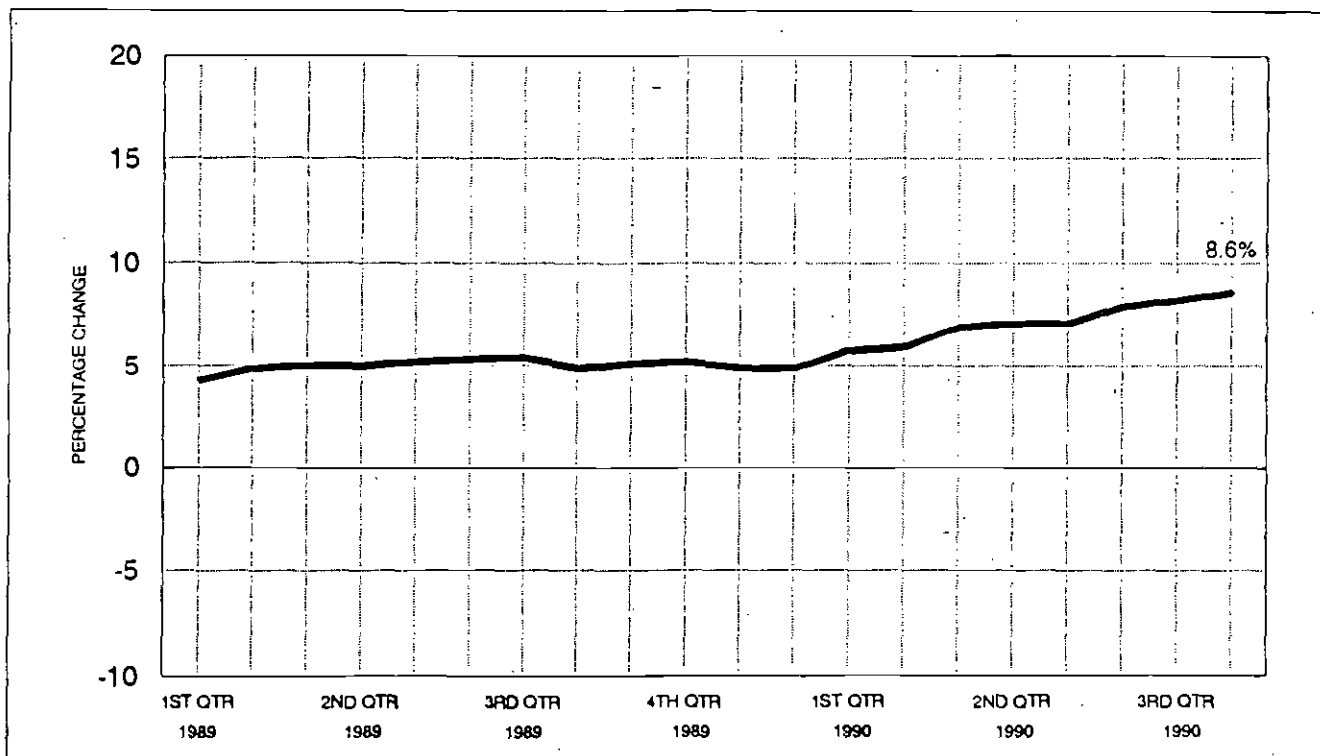
Change Notice Resolution



Change Activity Progress

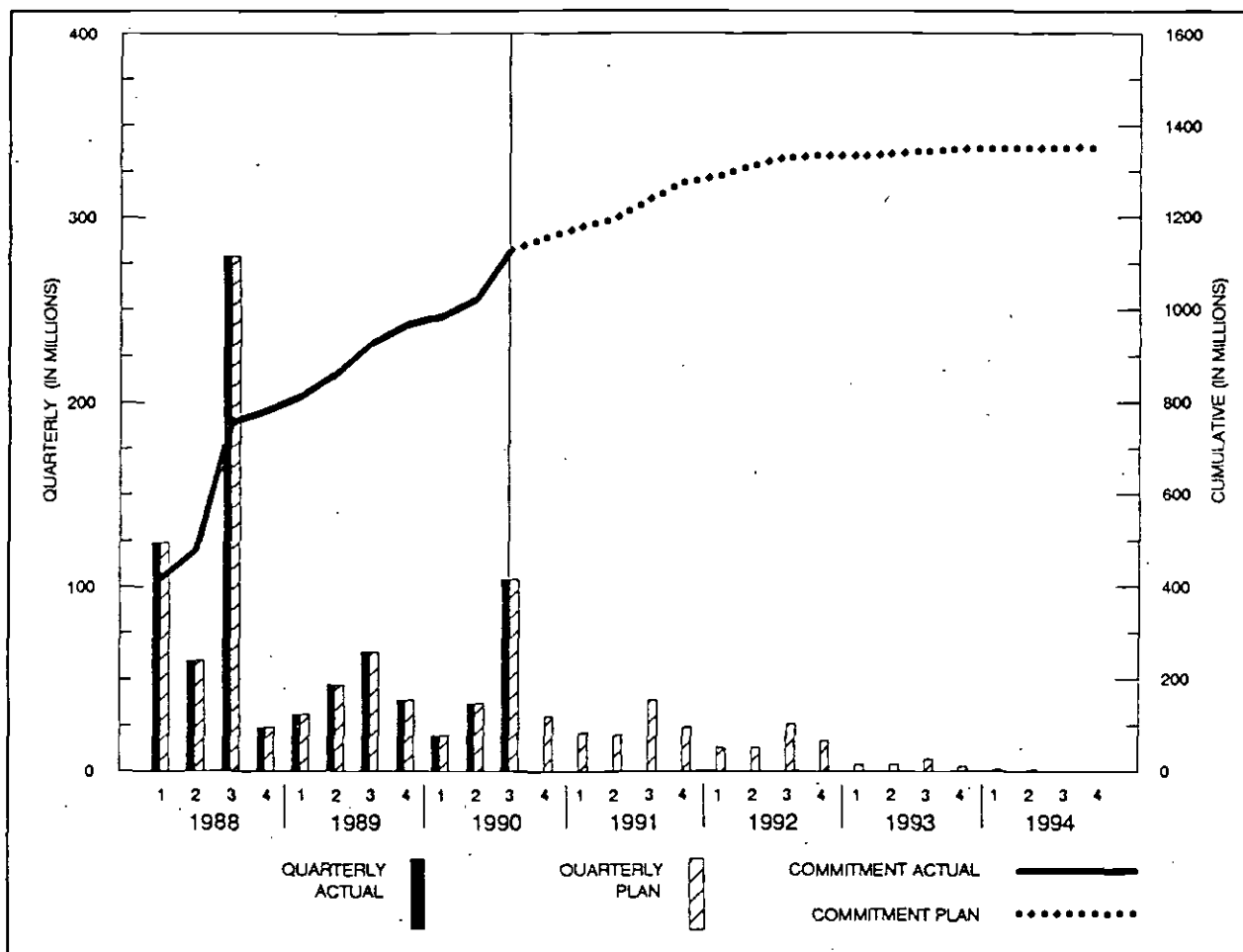


Total Value of Executed Change Orders

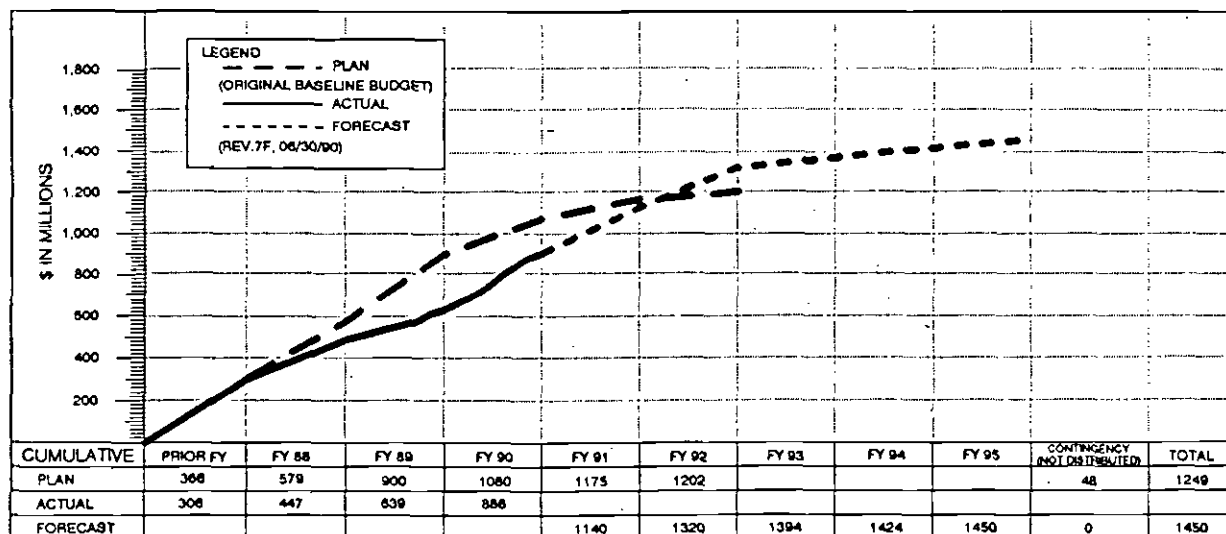


Change Order Dollars as a Percentage of Original Contract Award

METRO RED LINE MOS-1
COMMITMENT PLAN

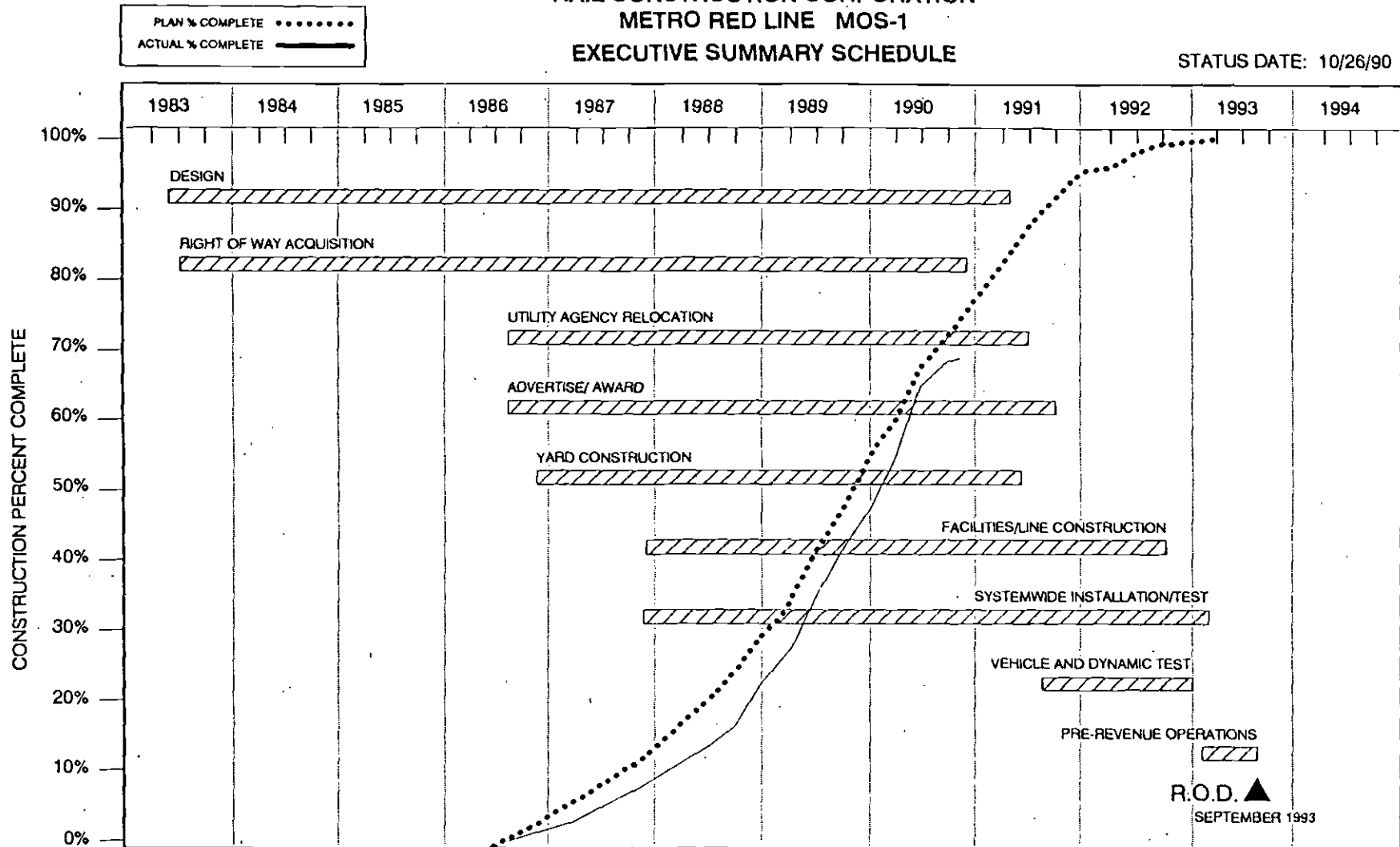


METRO RED LINE MOS-1
CASH FLOW



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

STATUS DATE: 10/26/90



MOS-1 PROJECT SCHEDULE STATUS/KEY EVENTS

TOTAL

ONE YEAR OUTLOOK

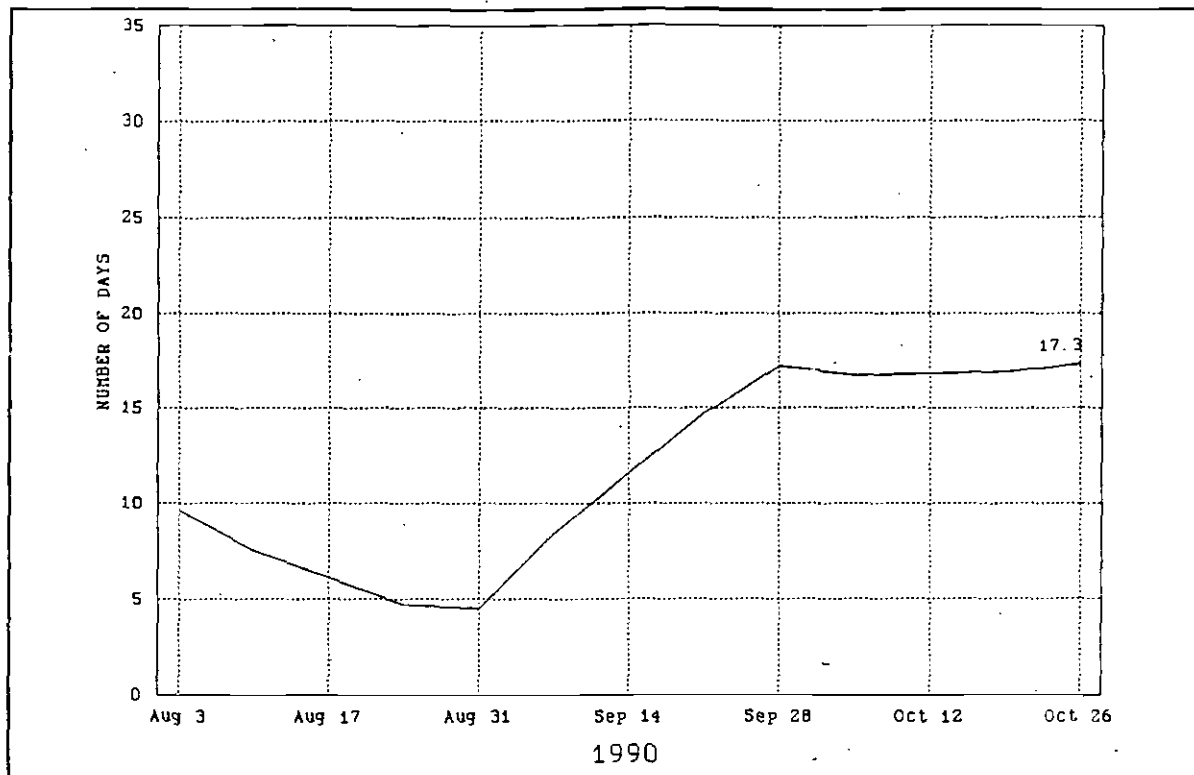
DATA DATE: 26 OCT 90

	OCT 90	NOV	DEC	JAN 91	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
60% Design Submittal			2									
85% Design Submittal				2								
100% Design Submittal												
TOTAL			2	2								
CR Camera Ready												
AD Advertise		1			3		1					
BD Bid Due			1				1		1			
AW Award	2			1				3		1		
RE Real Estate												
NTP Notice to Proc.	2				1				2		1	
VS Veh. Ship												
VT Veh. test (TTC)												
VA Veh. Arrival (LA)												
LIQ Liquid. Milest.	4	2	3	3	5	6	2	8	1	4	1	
CC Contract Compl.	1		2		1	2	4	1	1	1	2	

NOTE: 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	AGR'MNT SIGNED	CONOEM- NATION	PARCELS AVAIL	PARCELS NOT AVAILABLE	CONSTRUCTION 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	



Average Days to Invoice Payment
(4 Week Moving Average)

The following is a list of the actual number of invoices and dollar amounts of invoice payments for the past three months.

Date	Number of Invoices	Invoice Amount
08/03/90	1	\$ 4,426
08/10/90	20	10,335,234
08/17/90	9	2,949,292
08/24/90	2	953,866
08/31/90	11	4,475,762
09/07/90	13	5,980,869
09/14/90	2	1,487,779
09/21/90	4	867,397
09/28/90	5	1,150,809
10/05/90	11	5,283,436
10/12/90	11	5,058,663
10/19/90	7	2,478,417
10/26/90	14	4,760,021

EXECUTIVE SUMMARY

The **Master Schedule** update with status indicated to October 26, 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 39 percent complete**, versus a plan of 38 percent. **Construction is scheduled to commence in January 1991.** Bids were opened for demolition and site clearing for construction of B221, Contract B218.

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 \$9.5 million to reflect these changes.*

The following items have been identified as **potential cost increases** and trend reports are in process: fire protection for traction power substations, additional contractor Quality Control requirements, disputes review board, increased tunnel construction cost due to prohibition of timber lagging and other safety related requirements.

Currently, *66 parcels of land (per the project's Right-of-Way Certification Schedule) are required for MOS-2.* There are 16 full takes; 6 partial takes; 42 subsurface easements, and 2 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 according, depending on engineering or construction needs. *To date 4 MOS-2 parcels have been acquired; 12 offers to purchase are open, and three condemnations have been obtained from the Los Angeles Superior Court.*

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. **Real Estate Concerns**

Concern: If agreement is not reached between the RCC and Los Angeles Department of Recreation and Parks (DRP) for the MacArthur Park Agreement and easement there is potential cost and schedule impact.

Action: RCC to negotiate and finalize agreement with the City.

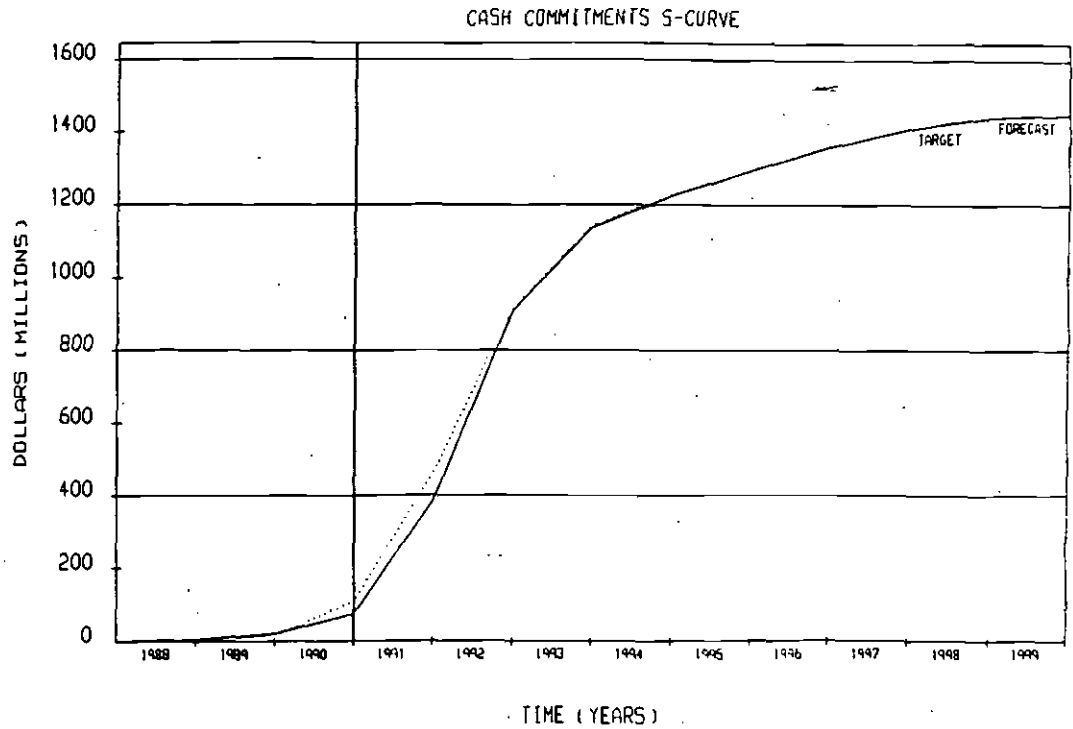
RAIL CONSTRUCTION CORPORATION
PROJECT COST REPORT - METRO RED LINE (MOS-2)
SUMMARY BY COST ELEMENT

STATUS DATE: 10/26/90

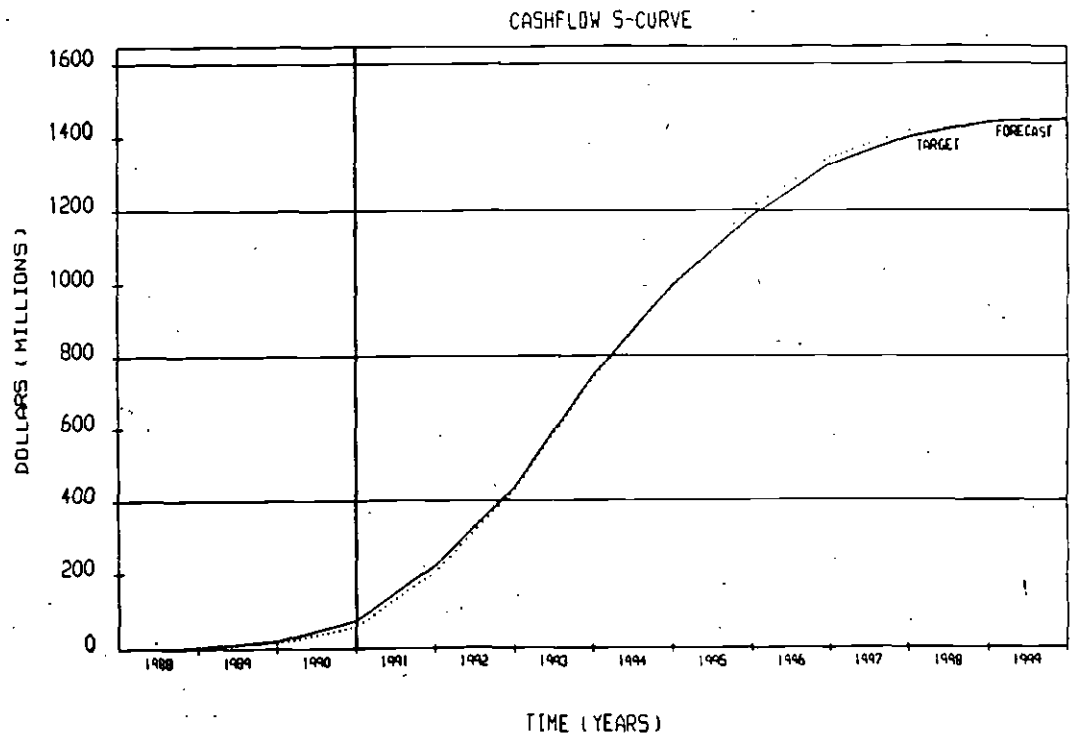
(IN THOUSANDS)

PROJECT: R81 METRO RED LINE	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	BUDGET		AUTHORIZED FOR EXPENDITURE		COMMITMENTS		INCURRED COST		EXPENDITURES		FORECAST	
DESCRIPTION	ORIGINAL	UMTA APPROVED	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	CURRENT	(11-2) VARIANCE
CONSTRUCTION	893,000	893,000	0	2,946	0	2,498	0	353	0	353	914,884	21,884
PROFESSIONAL SERVICES	289,150	289,150	0	22,554	1,418	23,569	1,195	23,293	1,195	23,293	286,592	(2,558)
REAL ESTATE	79,827	79,827	0	11,358	392	14,467	11	14,155	11	14,155	76,734	(3,093)
UTILITY/AGENCY FORCE ACCOUNTS	36,667	36,667	0	0	0	69	2	12	2	12	29,949	(6,718)
SPECIAL PROGRAMS	2,045	2,045	0	0	0	0	0	0	0	0	2,047	2
PROJECT RESERVE	145,743	145,743	0	0	0	0	0	0	0	0	136,226	(9,517)
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	1,810	40,603	1,208	37,813	1,208	37,813	1,446,432	0

No relevant change data has taken place as of October 1990



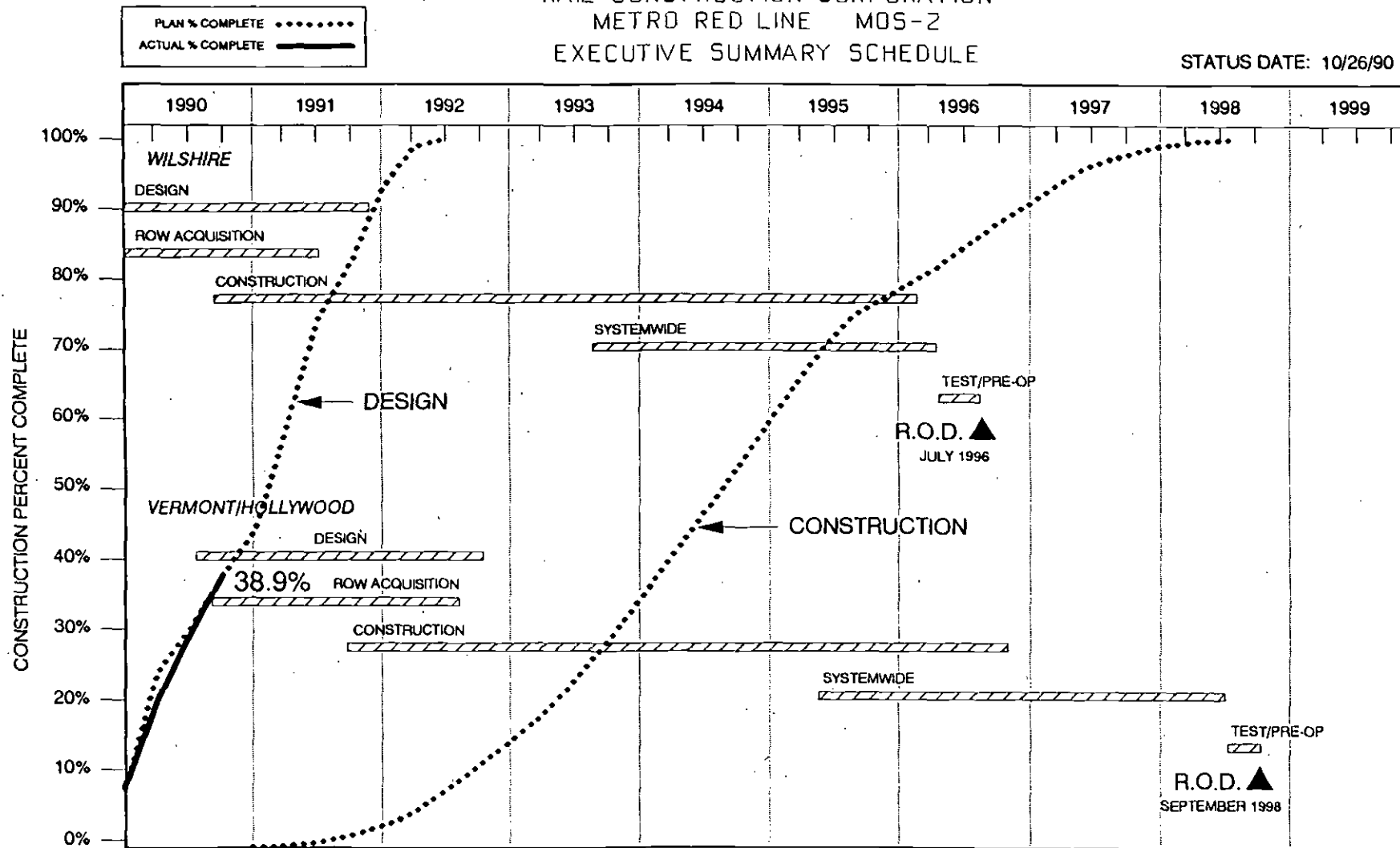
Schedule status Target & Carry Dates as of: 10/01/90		RAIL CONSTRUCTION CORPORATION METRO RED LINE MOS-2 CASH COMMITMENTS S-CURVE		Sheet 1 of 1
Project Name: L0000 Project Number: 000000	Date: 10/01/90 File Name: 111111	Date: 10/01/90 File Name: 111111	Date: 10/01/90 File Name: 111111	Date: 10/01/90 File Name: 111111



Schedule status Target & Carry Dates as of: 10/01/90		RAIL CONSTRUCTION CORPORATION METRO RED LINE MOS-2 CASHFLOW S-CURVE		Sheet 1 of 1
Project Name: L0000 Project Number: 000000	Date: 10/01/90 File Name: 111111	Date: 10/01/90 File Name: 111111	Date: 10/01/90 File Name: 111111	Date: 10/01/90 File Name: 111111

RAIL CONSTRUCTION CORPORATION
METRO RED LINE MOS-2
EXECUTIVE SUMMARY SCHEDULE

STATUS DATE: 10/26/90



1 YEAR OUT LOOK

MOS-2 PROJECT STATUS / KEY EVENTS
TOTAL

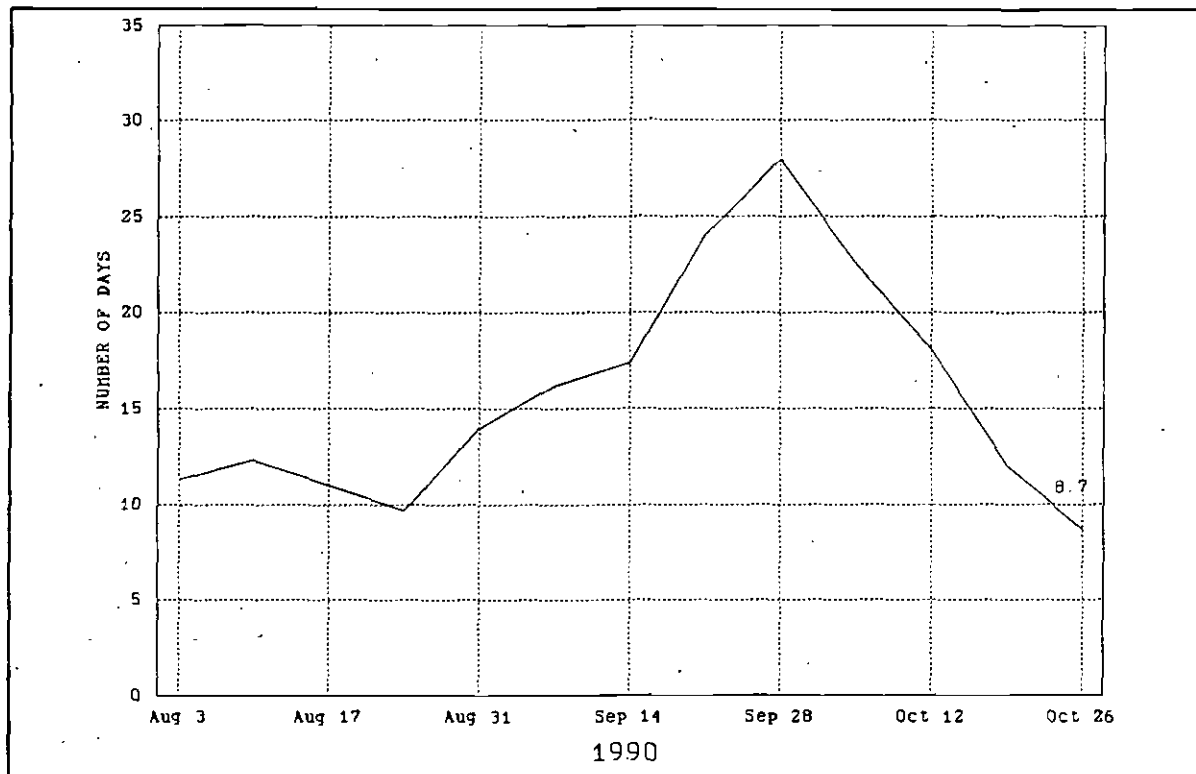
DATA DATE: 29 OCT 90

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

NOTE: REPORT REFLECTS ONLY CONTRACT PACKAGES FOR MAJOR SYSTEMS.

**REAL ESTATE - STATUS SUMMARY
MOS-2**

CCU	NO. OF PARCELS	NO. CERT'D	JUST COMP APPROVED	OFFERS MADE	AGRMNT SIGNED	CONDEMN FILED	PARCELS AVAIL	PARCELS NOT AVAIL	CONSTRUCT NTP DATE
B201	4	4						4	01/11/91
B211	1							1	07/25/91
B218	1	1		1	1	1	0	1	01/03/91
B219	5	5		3		1	0	5	05/13/91
B221	15	13	3	2				15	04/24/91
B231	3	3		1				3	01/28/91
B241	2							2	01/06/93
B251	20							20	02/04/92
B252	3							3	06/24/92
B261	3							3	04/21/93
B271	7							7	06/04/92
B281	1	1						1	11/25/92
TOTAL	65	27	3	7	1	2	0	65	



Average Days to Invoice Payment
(4 Week Moving Average)

The following is a list of the actual number of invoices and dollar amounts of invoice payments for the past three months.

Date	Number of Invoices	Invoice Amount
08/03/90	0	0
08/10/90	2	\$ 10,777
08/17/90	0	0
08/24/90	0	0
08/31/90	1	1,179,725
09/07/90	1	4,483
09/14/90	3	349,345
09/21/90	3	14,341
09/28/90	2	1,463,140
10/05/90	0	0
10/12/90	0	0
10/19/90	4	4,165,505
10/26/90	2	13,000