

# RAIL CONSTRUCTION CORPORATION



## Executive Report Rail Program Status



**Rail  
Construction  
Corporation**



A Subsidiary of  
the Los Angeles County  
Transportation Commission

# RAIL PROGRAM STATUS SUMMARY

## RAIL PROGRAM STATUS SUMMARY

### Metro Red Line Segment 1

<b>Cost Status</b>		(\$000)	<b>Project Progress</b>	
Original Budget	1,249,900		Design:	
Expended to Date	1,320,992		Plan	100%
Current Budget	1,450,019		Actual	99%
<b>Schedule Status</b>			Construction:	
Revenue Operations Date:			Plan	99%
Original	April 1992		Actual	99%
Forecast	January 1993			

### Metro Red Line Segment 2

<b>Cost Status</b>		(\$000)	<b>Project Progress</b>	
Original Budget	1,446,432		Design:	
Expended to Date	337,286		Plan	81%
Current Budget	1,446,432		Actual	79%
<b>Schedule Status</b>			Construction:	
ROD:	Wilshire	Vermont/Hlywd	Plan	20%
Original	Jul '96	Sep '98	Actual	16%
Forecast	Jul '96	Sep '98		

### Metro Green Line (Budget and forecast excludes North Coast Segment)

<b>Cost Status</b>		(\$000)	<b>Project Progress</b>	
Original Budget	671,000		Design:	
Expended to Date	277,213		Plan	100%
Current Budget	722,402		Actual	99%
<b>Schedule Status</b>			Construction:	
Revenue Operations Date:			Plan	51%
Original	October 1994		Actual	41%
Forecast	May 1995			

### Metrolink (includes 4 start-up lines, shared facilities, and LAUPT)

<b>Cost Status</b>		(\$000)	<b>Project Progress</b>	
Original Budget	473,262		Design:	
Expended to Date	299,677		Plan	100%
Current Budget	473,262		Actual	100%
<b>Schedule Status</b>			Construction:	
Revenue Operations Date for 3 lines:			Plan	96%
Original	October 1992		Actual	95%
Forecast	October 1992			
Forecast(Union Pac)	April 1993			

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

STATUS DATE: 12/31/92

(IN THOUSANDS)

PROJECT: TOTAL RAIL PROGRAM

DESCRIPTION	BUDGET		COMMITMENTS		INCURRED COST		EXPENDITURES		CURRENT FORECAST (9)	VARIANCE (9-2) (10)
	ORIGINAL (1)	CURRENT (2)	PERIOD (3)	TO DATE (4)	PERIOD (5)	TO DATE (6)	PERIOD (7)	TO DATE (8)		
CONSTRUCTION	2,556,544	2,838,787	(4,631)	2,162,802	44,715	1,630,701	41,609	1,568,474	2,908,288	69,501
PROFESSIONAL SERVICES	916,961	1,073,181	6,671	1,066,580	9,700	856,977	13,609	844,273	1,189,435	116,256
REAL ESTATE	247,495	301,211	2,724	260,018	2,926	256,398	2,926	255,067	312,044	10,833
UTILITY/AGENCY FORCE ACCOUNTS	105,421	88,791	105	87,775	1,532	70,830	1,531	70,309	95,877	7,086
SPECIAL PROGRAMS	7,668	14,110	0	2,326	0	1,108	1	1,026	19,810	5,700
CONTINGENCY	322,710	223,720	0	0	0	0	0	0	80,248	(143,473)
PROJECT REVENUE	(18,115)	(43,675)	(10)	(816)	(12)	(6,403)	(10)	(6,403)	(36,695)	6,980
PROJECT GRAND TOTAL	4,138,684	4,496,125	4,859	3,578,685	58,861	2,809,611	59,666	2,732,746	4,569,007	72,883

**BUDGET STATUS - DECEMBER 31, 1992**  
(in \$ Millions)

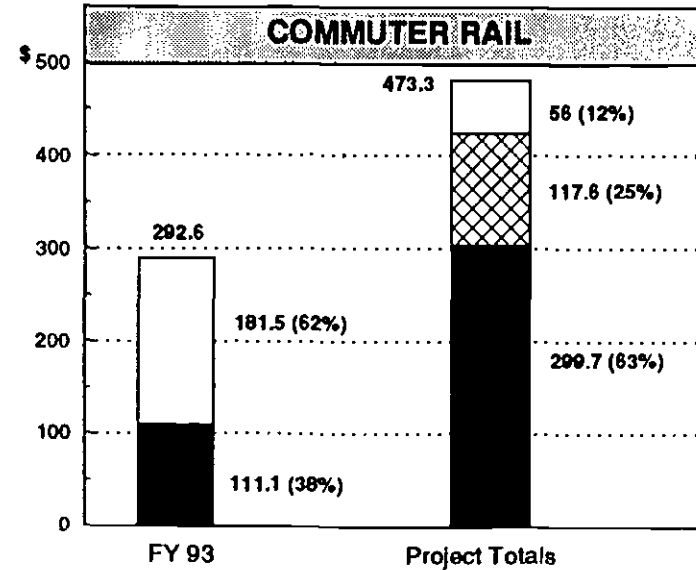
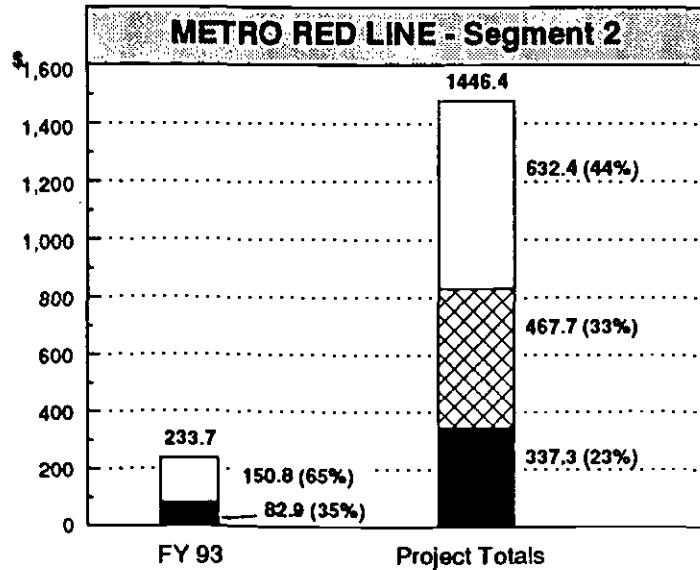
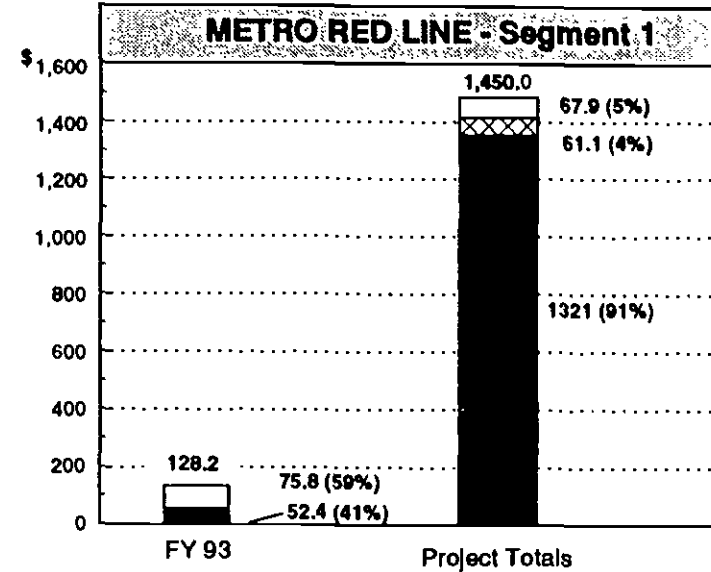
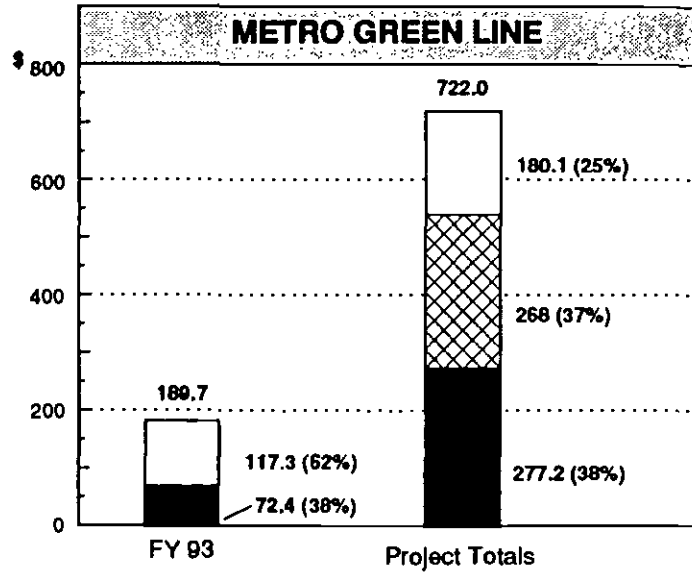


Figure 1 - Rail Construction Plan

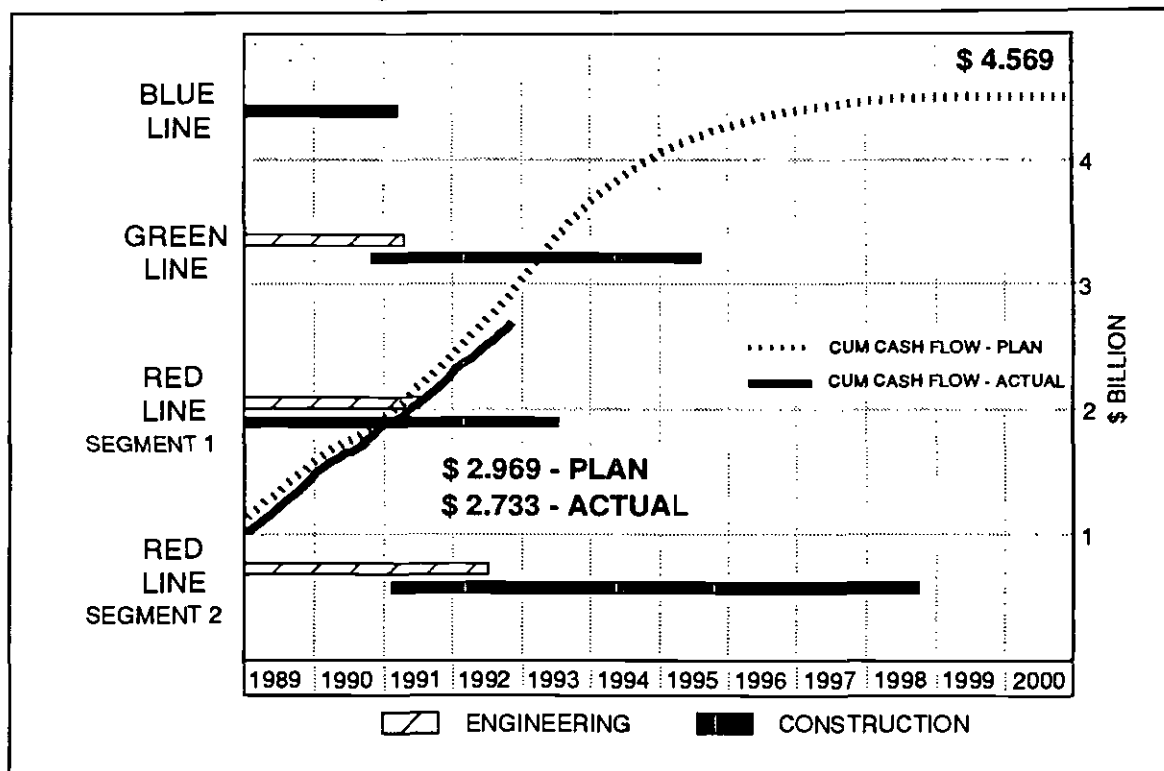
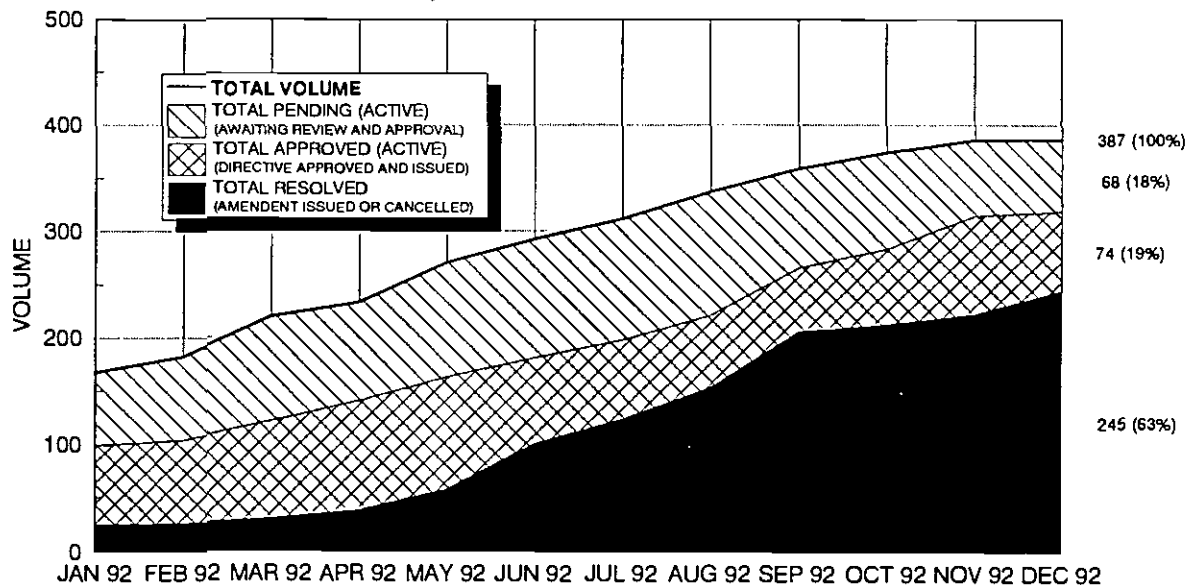


Figure 2 - Rail Construction Funding Sources

(IN MILLIONS)										
	METRO BLUE LINE*		METRO GREEN LINE		METRO RED SEGMENT 1**		METRO RED SEGMENT 2		TOTAL PROGRAM	
	\$	%	\$	%	\$	%	\$	%	\$	%
FTA-SEC 3					605.3	42	667.0	44	1272.3	28
FTA-SEC 9					90.6	6			90.6	2
STATE					210.3	15	186.0	12	396.3	9
LOCAL (PROP A)	877.2	100	738.0	100	179.5	12	496.7	33	2291.4	50
CITY OF L.A.					34.0	2	96.0	6	130.0	3
BENEFIT ASSES					130.3	9	58.0	4	188.3	4
FORECAST					200.1	14			200.1	4
<b>TOTAL</b>	<b>877.2</b>	<b>100</b>	<b>738.0</b>	<b>100</b>	<b>1450.1</b>	<b>100</b>	<b>1503.7</b>	<b>100</b>	<b>4569.0</b>	<b>100</b>

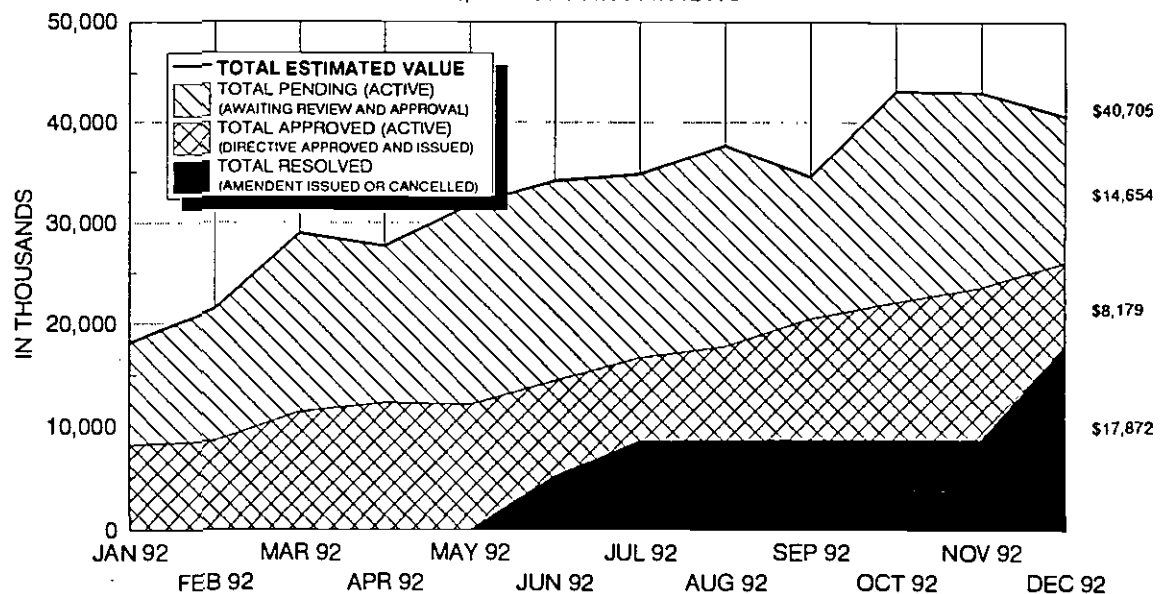
\* CONSISTS OF LIGHT RAIL LINE (\$847) AND MC-5 WORK (\$30).  
 \*\* LRT PORTION INCLUDED IN BLUE LINE FORECAST.

**CONSULTANT CONTRACT CHANGE SUMMARY  
CONSULTANT CHANGE REQUEST RESOLUTION  
CUMULATIVE, ALL ACTIVE RCC PROJECTS**



AGE OF UNRESOLVED CONSULTANT CHANGES					
TIME	0-30 DAYS	30-60 DAYS	61-90 DAYS	OVER 90	TOTAL ACTIVE
VOLUME	4	3	17	118	142
PERCENT	3%	2%	12%	83%	100%

**CONSULTANT CONTRACT CHANGE SUMMARY  
CONSULTANT CHANGE REQUEST VALUES  
CUMULATIVE, ALL ACTIVE RCC PROJECTS**



## EXECUTIVE SUMMARY

**CONSULTANT CONTRACT CHANGE STATUS SUMMARY  
CHANGES/AMENDMENTS \*  
AS OF 12/31/92**

( \$ = THOUSANDS)

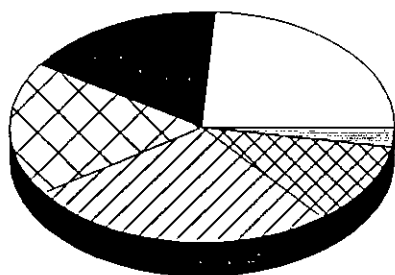
CONSULTANT CONTRACTS	TRANSCAL: E2301/MC005		PB/DMJM: 2997/E0002/ E0070		PD: 3369		OKA: MC008		OTHER		PROJECT TOTAL		LAST MONTH		VARIANCE	
	#	\$	#	\$	#	\$	#	\$	#	\$	#	\$	#	\$	#	\$
R01: BLUE LINE	9	464							5	491	14	955	14	1,049	0	(94)
R05: PASADENA LINE			2	0					2	35	4	35	2	0	2	35
R23: GREEN LINE	73	3,699					22	1,523	3	42	98	5,264	99	5,264	(1)	0
R80: RED LINE SEGMENT 1			14	1,608	97	5,409			5	565	116	7,582	115	7,387	1	195
R81: RED LINE SEGMENT 2			74	12,186	48	9,940			1	0	123	22,126	121	24,088	2	(1,962)
R82: RED LINE SEGMENT 3			18	2,276							18	2,276	19	2,701	(1)	(425)
SYSTEMWIDE & OTHER			3	220	11	2,247					14	2,467	14	2,466	0	1
CONTRACT TOTAL	82	4,163	111	16,290	156	17,596	22	1,523	16	1,133	387	40,705	COMMENTS:			
LAST MONTH	82	4,163	110	16,620	155	19,460	22	1,523	15	1,189	384	42,955				
VARIANCE	0	0	1	(330)	1	(1,864)	0	0	1	(56)	3	(2,250)				

NOTE: DOLLAR VALUES SHOWN INCLUDE CONSULTANTS ROUGH-ORDER-OF-MAGNITUDE ESTIMATES AND DO NOT NECESSARILY REFLECT RCC'S FORECAST OF FINAL CHANGE COSTS.







\* DOES NOT INCLUDE AMENDMENTS PRIOR TO 05/01/91

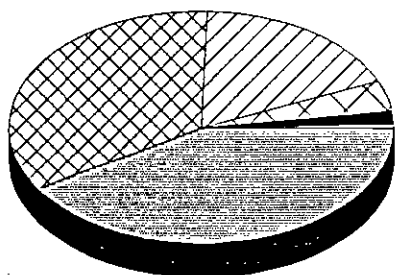


# METRO PROGRAM CHANGE VOLUME AND COST BREAKDOWN CONSULTANT CONTRACT CHANGES









CHANGE VOLUME  
TOTAL CCR'S: 251

60	24%		0-10K
43	17%		10-25K
47	19%		25-50K
65	26%		50-200K
29	11%		200K-1 MIL
7	3%		ABOVE 1 MIL

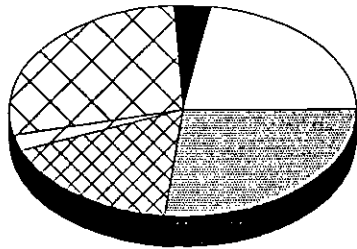


CHANGE COST ESTIMATE  
TOTAL COST: \$40.8 MILLION


\$178,873	1%		0-10K
\$771,501	2%		10-25K
\$1,689,454	4%		25-50K
\$7,385,516	18%		50-200K
\$14,004,200	34%		200K-1 MIL
\$16,767,680	41%		ABOVE 1 MIL

DATA AS OF 12/31/92  
REQUESTED CHANGES SINCE 05/01/91 ONLY

## METRO PROGRAM CHANGE VOLUME AND COST BY BASIS CONSULTANT CONTRACT CHANGES



CHANGE BASIS VOLUME  
TOTAL CCR'S: 251

56 22%  OTHER AGENCIES

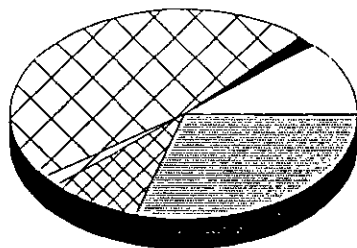
9 4%  SCHEDULE REVISION

70 28%  CONTRACT CHANGES

6 2%  CLAIMS/DISRUPTIONS

43 17%  SPECIAL STUDIES

67 27%  STAFFING/EQUIPMENT




CHANGE COST ESTIMATE  
TOTAL COST: \$43 MILLION

\$4,681,559 11%  OTHER AGENCIES

\$762,598 2%  SCHEDULE REVISION

\$19,183,676 47%  CONTRACT CHANGES

\$640,616 2%  CLAIMS/DISRUPTIONS

\$3,488,890 9%  SPECIAL STUDIES

\$12,039,885 29%  STAFFING/EQUIPMENT

DATA AS OF 12/31/92

REQUESTED CHANGES SINCE 05/01/91 ONLY

## REAL ESTATE

Figure 3 - Real Estate Acquisition Status Summary

	Number of Parcels	Number of Parcels Available	Parcels Not Available (on Schedule)	Parcels Not Available (Behind Schedule)	
				Number	Avg. Days Behind
Green Line	39	39	0	0	0
Red Line Seg 2	83	51	25	7	71

## RAIL CONSTRUCTION CORPORATION STAFF DEVELOPMENT

Figure 4 - RCC Staff Levels

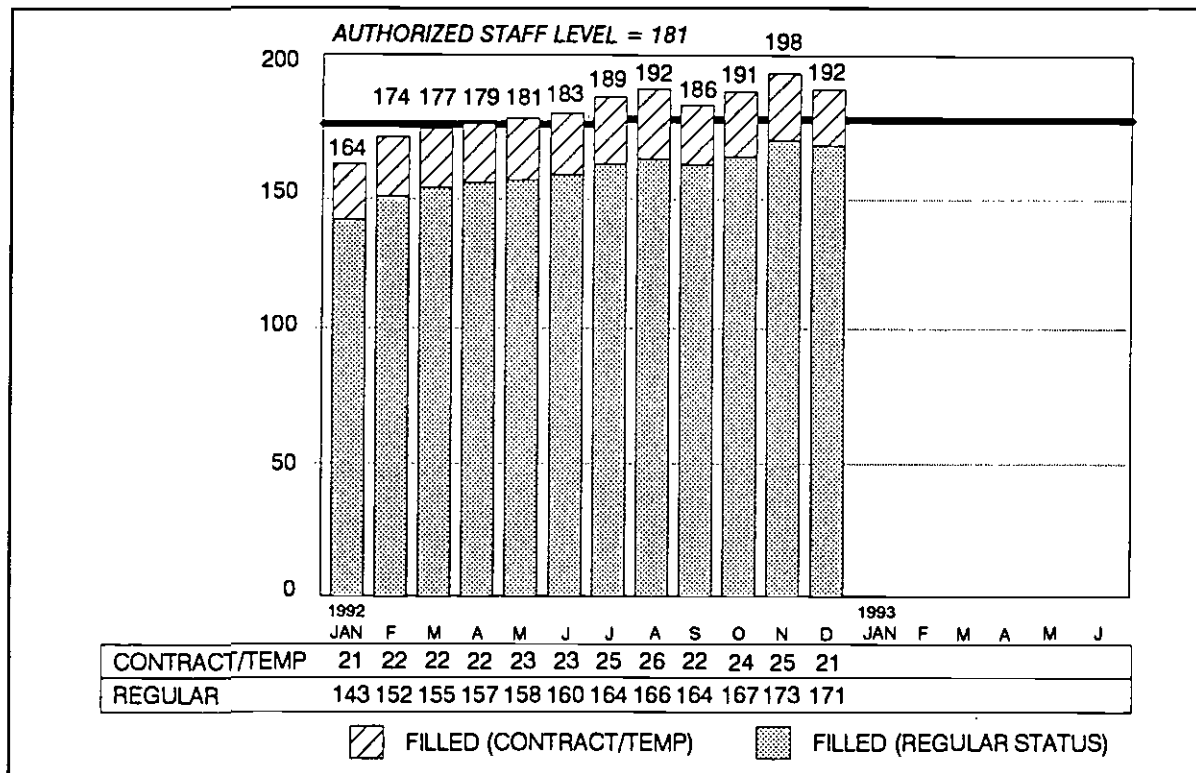
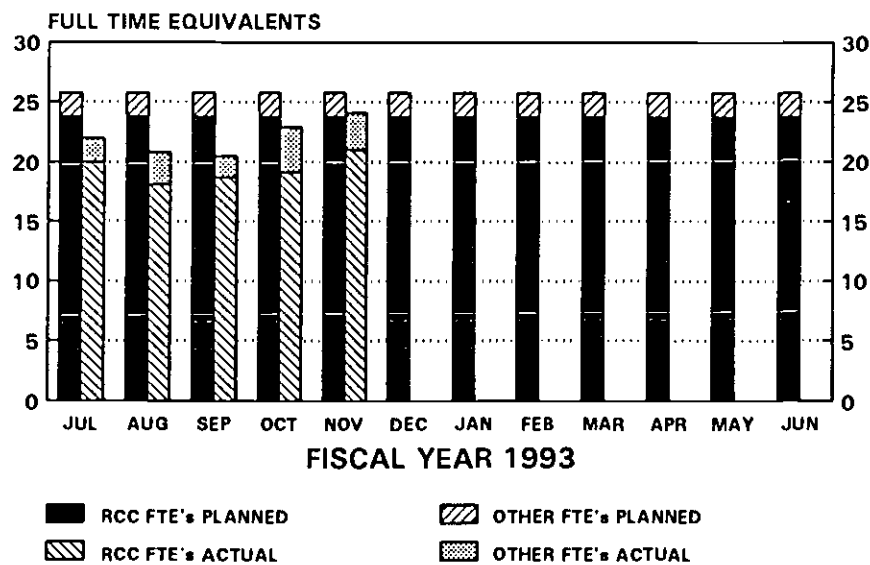


Figure 5 (on the following page) shows the LACTC/RCC staff full time equivalents and wage rate for the rail projects.

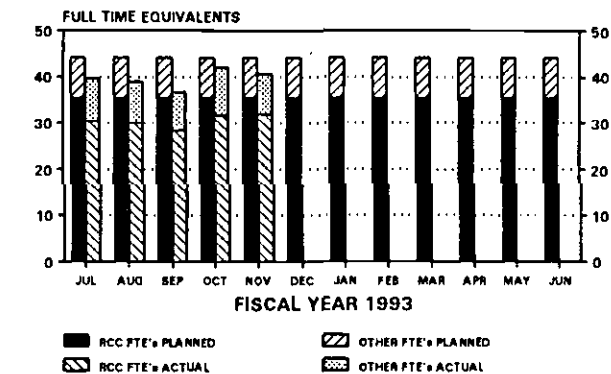
Figure 5

## STAFFING PLAN VS. ACTUAL RED LINE SEGMENT 1



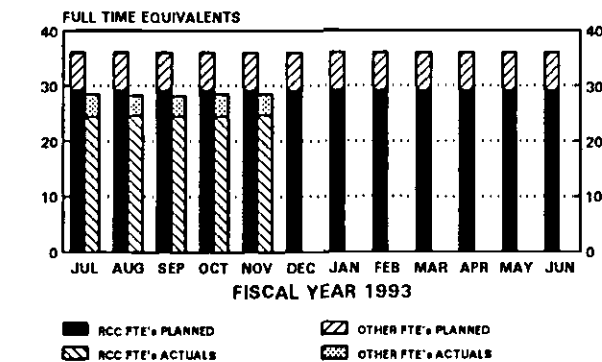
FY'93 Budget

## STAFFING PLAN VS. ACTUAL RED LINE SEGMENT 2

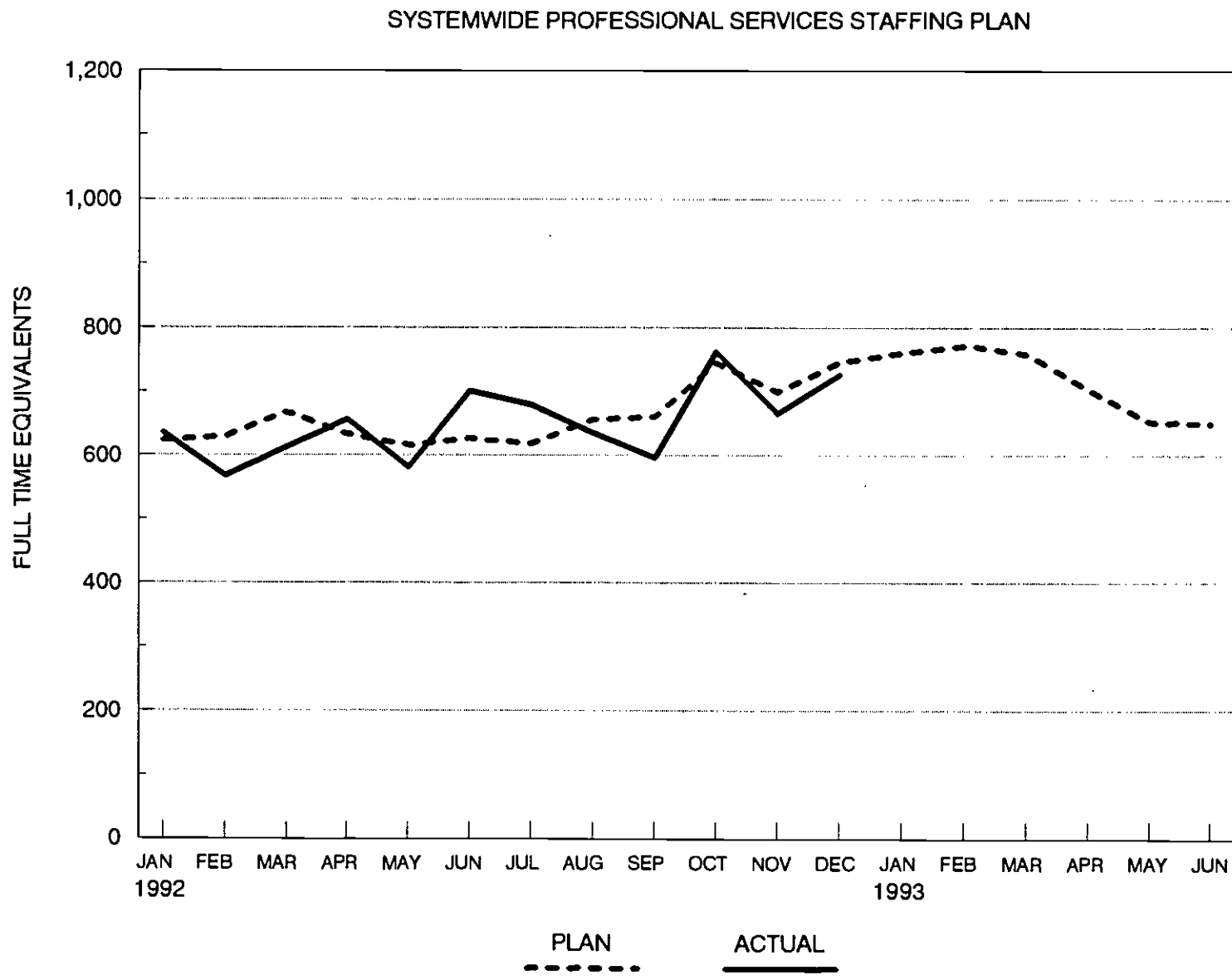


FY'93 Budget

## STAFFING PLAN VS. ACTUAL GREEN LINE



FY'93 BUDGET





**RAIL CONSTRUCTION CORPORATION**  
**EXECUTIVE SUMMARY LABOR DISTRIBUTION REPORT**  
For Period: November 1992  
(All Figures in FTE Person Months)

Page: 1  
Date: 12/09/92  
Time: 4:12 pm

DIVISION		R01 Blue Line		R05 Pasadena		R23 Green Line		R80 Red Seg 1		R81 Red Seg 2		R82 Red Seg 3		Sub Total		R6x/7x Comm Rail		Rxx Other Proj		R92 System Wide		000 Overhead		Sub Total		Grand Total		ANNUAL BUDGET
		PER	YTD	PER	YTD	PER	YTD	PER	YTD	PER	YTD	PER	YTD	PER	YTD	PER	YTD	PER	YTD	PER	YTD	PER	YTD	PER	YTD	PER	YTD	
Executive	BUDGET	.8	4.0	.3	1.3	1.0	4.8	.7	3.5	.8	4.0	.1	.3	3.6	17.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.6	17.8	42.6
	ACTUAL	.7	4.4	.4	1.5	1.1	5.3	1.2	6.9	1.0	4.7	0.0	.1	4.4	22.8											4.4	22.8	
Area Teams	BUDGET	0.0	0.0	1.3	6.5	.3	1.5	.2	.8	.1	.3	1.1	5.6	2.9	14.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.9	14.6	34.9
	ACTUAL	0.0	.0	.4	1.9	.1	.2	0.0	.2	.5	2.1	1.3	7.1	2.3	11.6											2.3	11.6	
	BUDGET	.5	2.5	.5	2.5	1.0	5.0	1.4	7.0	1.3	6.3	.2	.8	4.8	24.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.8	24.0	57.6
	ACTUAL	.2	.5	.2	.5	.5	.9	.8	3.0	1.0	3.0	.2	.3	2.9	8.1											2.9	8.1	
ATO	BUDGET	.9	4.7	3.2	15.9	4.1	20.6	.6	3.0	6.4	32.0	5.7	28.6	20.9	104.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20.9	104.5	250.8
	ACTUAL	1.1	4.3	.8	3.6	2.1	12.7	1.1	3.5	6.2	35.3	2.4	8.4	13.6	67.7											13.6	67.7	
Commuter Rail	BUDGET	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0	0.0	0.0
	ACTUAL	0.0	0.0	0.0	.1	0.0	0.0	0.0	0.0	.0	.1	0.0	0.0	0.0	.2											.0	.2	
RCC	BUDGET	.5	2.3	14.5	70.3	29.1	143.3	23.8	119.0	35.5	177.5	2.5	12.3	105.7	524.5	5.5	27.3	8.5	42.5	44.1	217.5	15.5	73.5	73.6	360.8	179.3	885.3	2148.0
	ACTUAL	.9	3.9	9.4	37.9	24.7	122.5	21.0	96.8	32.0	152.6	6.9	29.1	94.9	442.8	6.6	23.8	9.8	44.2	33.5	143.6	16.0	148.7	65.9	360.2	160.8	803.0	
COMMISSION TOTAL	BUDGET	2.7	13.4	19.7	96.3	55.4	175.1	26.6	133.2	44.0	220.0	9.5	47.4	137.9	685.3	5.5	27.3	8.5	42.5	44.1	217.5	15.5	73.5	73.6	360.8	211.4	1046.1	
	ACTUAL	2.8	13.0	11.2	45.5	28.4	141.6	24.1	110.3	40.7	197.9	10.9	45.0	118.0	553.2	6.6	23.8	9.8	44.2	33.5	143.6	16.0	148.7	65.9	360.2	184.0	913.4	
ANNUAL BUDGET		32.2		234.5		426.9		319.1		527.9		113.8				62.4		105.0		530.2		182.0						2333.9

### 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.

The RCC corporate goal for project administration costs is 20%. The current cost forecast data for project administration costs totals 26.5% which exceeds the corporate goal by 6.5%. The percentage includes all costs previously expended by the SCRTD when the Metro Red Line Segment 1 project was under SCRTD management.

Staff costs are projected at 4.6% of total program costs, which exceeds the 4.0% corporate goal. Figure 6 illustrates the forecast figures for each project and for total program.

Figure 6 - Cost Performance Relative to Corporate Goals

(IN THOUSANDS)

	METRO BLUE LINE		METRO GREEN LINE		METRO RED LINE SEGMENT 1		METRO RED LINE SEGMENT 2		TOTAL PROGRAM		CORPORATE GOAL
	DOLLARS	PERCENT	DOLLARS	PERCENT	DOLLARS	PERCENT	DOLLARS	PERCENT	DOLLARS	PERCENT	
CONSTRUCTION	657,487	74.95%	506,578	68.64%	814,806	56.19%	1,025,294	68.18%	3,004,165	65.75%	
REAL ESTATE	55,592	6.34%	28,523	3.86%	140,000	9.66%	87,929	5.85%	312,044	6.83%	
PROFESSIONAL SERVICES:											
ENGINEERING/DES	69,587	7.93%	73,140	9.91%	218,218	15.05%	141,157	9.39%	502,102	10.99%	
CONSTR MGMT.	91,642	10.45%	66,985	9.08%	147,724	10.19%	133,013	8.85%	439,364	9.62%	
STAFF	17,655	2.01%	27,607	3.74%	96,273	6.64%	70,237	4.67%	211,772	4.63%	4%
OTHER	14,222	1.62%	17,657	2.39%	871	0.06%	23,258	1.55%	56,008	1.23%	
SUBTOTAL	193,106	22.01%	185,389	25.12%	463,086	31.94%	367,665	24.45%	1,209,246	26.47%	20%
CONTINGENCY	963	0.11%	24,029	3.26%	32,127	2.22%	23,129	1.54%	80,248	1.76%	
PROJECT REVENUE	(29,877)	-3.41%	(6,518)	-0.88%	0	0.00%	(300)	-0.02%	(36,695)	-0.80%	
GRAND TOTAL	877,271	100.00%	738,001	100.00%	1,450,019	100.00%	1,503,717	100.00%	4,569,008	100.00%	

RCC PROJECT MANAGEMENT OVERSIGHT CONSULTANT  
ITEMS FOR RCC ACTION

The following items reflect action requirements identified in the December Project Report submitted to RCC by the Project Management Oversight Consultant, Fluor Daniel, Inc.

ONGOING - December 1992

- Concern:** Design scheduling and priority conflicts are occurring between RCC projects.
- Action:** Establish RCC responsibility for approval of systemwide design resource allocation.
- Status:** Reported in December Quarterly Report.
- 
- Concern:** The RCC Board has not approved the schedule for the Metro Green Line segmental opening.
- Action:** Review proposed Metro Green Line segmental opening schedule with RCC Board for approval.
- Status:** Schedule review and analysis in process.
- 
- Concern:** Access dates for RCC contractors on the Metro Green Line may not be met.
- Action:** The OKA Caltrans Integration Team should perform cost/benefit analyses on various acceleration strategies in order to achieve forecasted access dates for Caltrans contracts.
- Status:** In process.
- 
- Concern:** The performance criteria for the Metro Pasadena Line is not yet approved.
- Action:** Review and approve December, 1992 Metro Pasadena Line design and performance criteria.
- Status:** Under RCC review.
- 
- Concern:** Certain budget elements of the Metro Pasadena Line need validation.
- Action:** The Metro Pasadena Line project staff should validate the budget estimates for project elements which have not had the benefit of preliminary engineering (e.g. Midway Yard and Marmion/Figueroa with parking) as well as other items such as additional real estate acquisitions and environmental services.
- Status:** In process.
- 
- Concern:** Preliminary engineering on the Metro Pasadena Line is two months behind schedule.
- Action:** RCC should direct the EMC to formalize and communicate corrective action to recover planned production for the Metro Pasadena Line preliminary engineering.
- Status:** Reported in December Quarterly Report.



**PUBLIC AFFAIRS SUMMARY**

Public Affairs continued to manage mitigation measures along all corridors. The following is a summary of the major issues and/or activities for December:

**METRO GREEN LINE**

- Issued construction notices for temporary lane closures due to construction of the Contract C0100 Aerial Guideways.
- Mitigated complaints regarding tire damage from falling debris due to Contract C0100 Aerial Guideways.
- Addressed complaints from Continental Development Corporation concerning flooding.
- Coordinated a walk-through with OKA, TRW and Kiewit Pacific on the 33rd Street and Redondo Avenue detour for Contract C0110 Segmental Bridges.
- Finalizing a "hold harmless" agreement between TRW and RCC.

**METRO RED LINE SEGMENT 1**

- Conducted a presentation and tour for statewide transit officials.
- Conducted a video presentation and a construction update for the Optimist International Club of Los Angeles.
- Mitigated complaints regarding the installation of new sidewalks on Seventh Street between Lebanon and Flower.

**METRO RED LINE SEGMENT 2**

- **Wilshire Corridor** - Coordinated the "break through" ceremony and media event. Mitigated complaints from local businesses regarding the street closure for removal of tunneling shield. Issued construction progress summary to Wilshire community groups and property managers.
- **Vermont Corridor** - Met with representatives from L.A. City College and local medical facility to outline construction support plan. Promotional Metro banners being transferred from Wilshire to Vermont. Developed a noise mitigation plan for Barnsdall Park.
- **Hollywood Corridor** - Continued developing the Hollywood Construction Impact Plan (HCIP). Held meetings with local businesses to discuss improvements to the HCIP. Continue negotiations for the field office.

**METRO ACCIDENT GRAMS**  
**December 1992**

Accident Grams received during December 1992 reporting the following safety violations:

**Incident:** Employee injured lower back when lifting portable generator.

*Recommendation:*

- *Employees need to be trained in proper lifting procedures, particularly large objects.*

**Incident:** Employee unbanding a bundle of lumber was injured when strap broke releasing lumber on his legs. Employee received bruises on his legs.

*Recommendation:*

- *Employees should be advised on the procedure and hazards of unbanding material.*

**Incident:** Employee climbing from outside scaffolding to inside scaffold was injured when he stepped on a loose 2x4. Employee sprained his shoulder and lacerated his finger.

*Recommendation:*

- *Safe access and egress should be maintained on the job site. Employees should not take short cuts.*

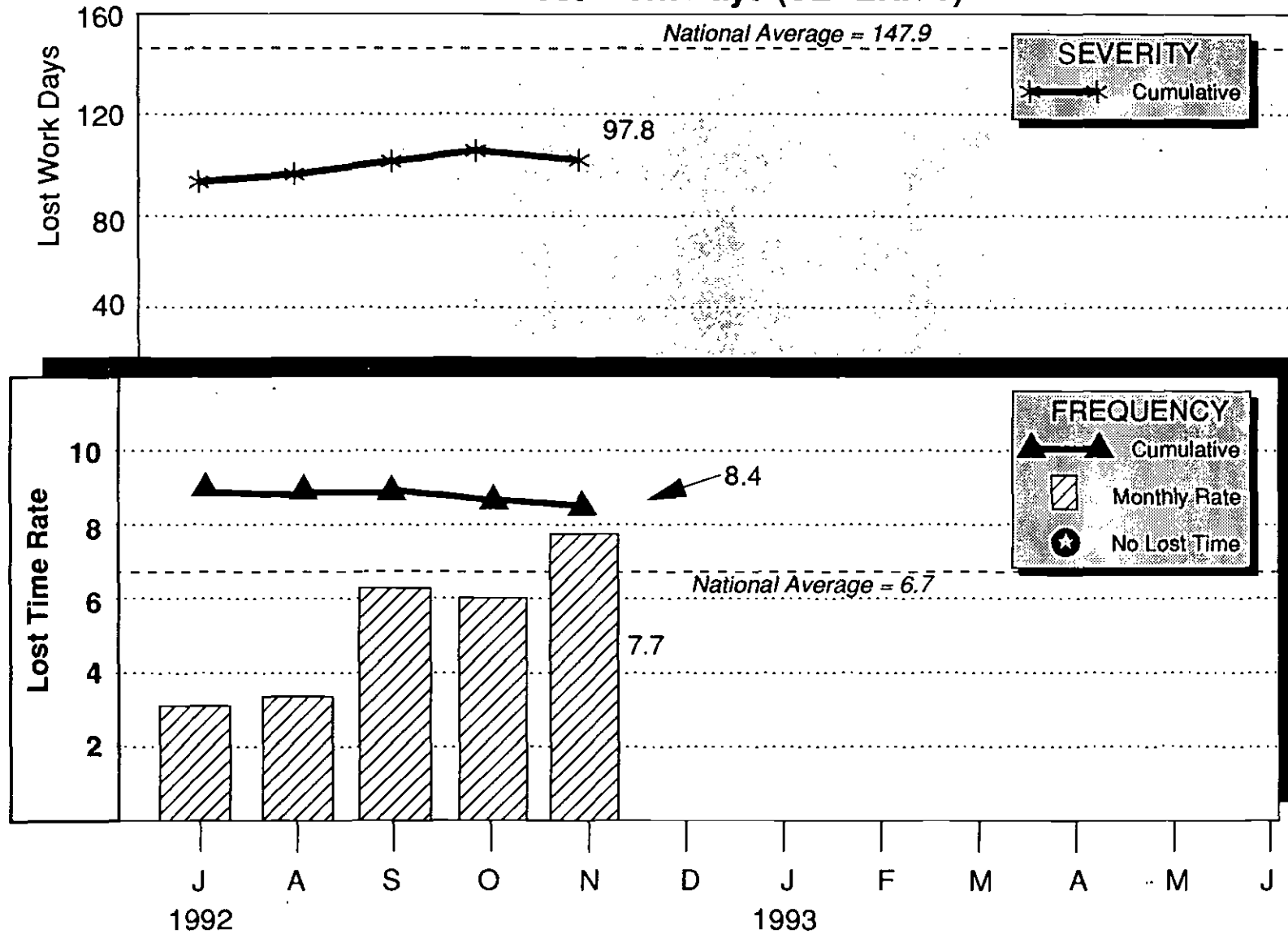
**Incident:** Employee was operating a 18-ton hydraulic crane underneath a 66KV power line. The crane was picking up wall panels and setting them on a flatbed. The operator had made several picks underneath the power line. The operator boomed up for another lift, getting close to the line causing it to arch. There were no injuries or apparent damage to the crane.

*Recommendation:*

- *Cranes shall maintain safe working distances away from power lines. An individual shall be designated to observe the safe clearance and give timely warnings to the operators.*

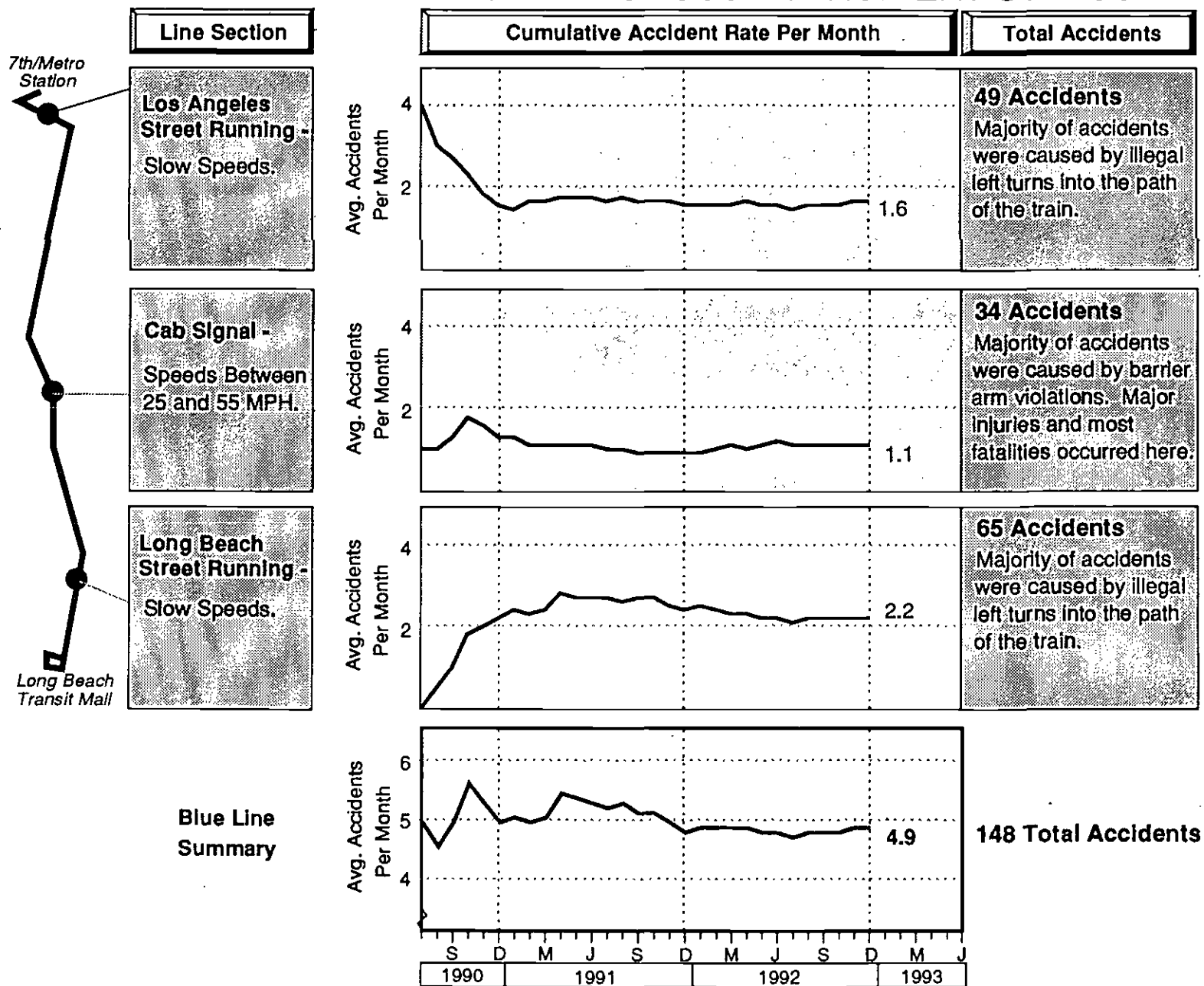
# TOTAL PROGRAM

## Summary of Lost Time Accidents (FREQUENCY) and Lost Work Days (SEVERITY)



Data for Metro Red Line Segment 1 (from 7/90 to current), Segment 2, and Metro Green Line.

# METRO BLUE LINE GRADE CROSSING INCIDENT STATUS



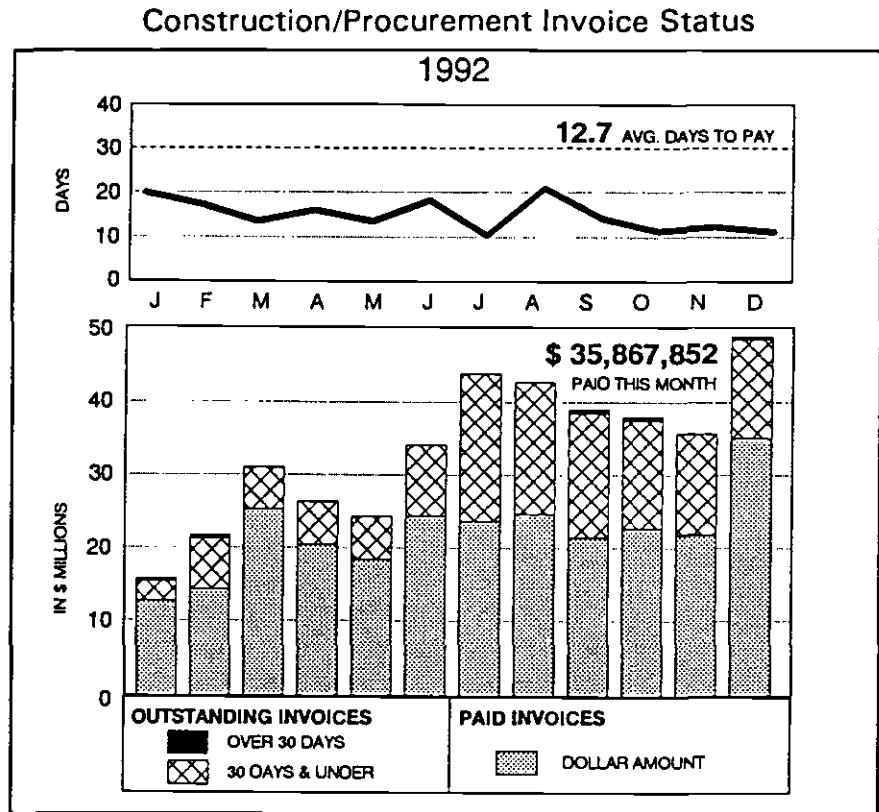
## INVOICE PROCESSING

- The average time taken to pay invoices for Construction and Procurement contracts (including Insurance) was 12.7 days.

- 38 invoices were paid this month for a total value of \$ 35,867,852.

- There were 45 outstanding Construction or Procurement invoices under 30 days old for \$ 13,720,653.

- There were 2 outstanding Construction or Procurement invoices over 30 days old for \$ 389,360.



Note: The average days to pay is the time from when the Resident Engineer approves a progress payment (invoice) to when Accounting issues a check for this invoice.

## OUTSTANDING INVOICES

Month	Construction/Procurement Invoices				Other Invoices			
	30 Days and Under		Over 30 Days		30 Days and Under		Over 30 Days	
	Number of Invoices	Dollar Value	Number of Invoices	Dollar Value	Number of Invoices	Dollar Value	Number of Invoices	Dollar Value
JUL 1992	75	20,501,228	1	77,413	103	9,162,351	25	1,019,011
AUG 1992	63	18,419,416	1	6,609	44	7,354,593	37	2,300,032
SEP 1992	49	17,278,089	2	619,666	66	11,681,964	26	1,975,988
OCT 1992	45	15,026,900	1	574,379	77	8,750,757	25	4,268,765
NOV 1992	32	14,103,060	0	0	52	5,408,308	17	2,974,820
DEC 1992	45	13,720,653	2	389,360	86	8,061,468	11	2,975,227

**METROLINK - COMMUTER RAIL****DECEMBER 1992  
VEHICLE PROGRESS REPORT  
PASSENGER COACHES (UTDC)****PROGRESS THIS PERIOD:**

- Sixty-one cars (22 cabs-39 trailers) are presently on SCRRA property. Cars accepted: 57 conditionally; 0 final.
- Production rate of one vehicle per week started December 1, and will continue through September 1993.
- Car #76 in "splice", subsections for car #83 are positioned in assembly fixtures on the shop floor.
- The total quantity of cars ordered is 94 (31 cabs and 63 trailers).

**UPCOMING MILESTONES/ISSUES FOR NEXT THREE MONTHS:**

- Change orders for spare parts for Option A and B cars are in negotiations.
- Final acceptance of initial coaches.
- Finalize equipment modifications.

**CRITICAL NEEDS:**

- None

**METROLINK - COMMUTER RAIL****DECEMBER 1992  
VEHICLE PROGRESS REPORT  
LOCOMOTIVES (GM)****PROGRESS THIS PERIOD:**

- Four additional locomotives (numbers 20, 21, 22 and 23) have been ordered for delivery by April 1993.
- Nineteen (19) locomotives are presently on SCRRA property. Locomotives accepted; 17 conditionally; 0 final.
- A change order to GM to design and install a low temperature after cooling system for the primary traction engine of one locomotive (unit #19) as part of our on-going reduced emissions/NOX study program has been issued.

**UPCOMING MILESTONES/ISSUES FOR NEXT THREE MONTHS:**

- Final acceptance of initial locomotives.
- Finalization of equipment modifications.

**CRITICAL NEEDS:**

- None.

RAIL CONSTRUCTION CORPORATION  
PRE CONTRACT STATUS SCHEDULE  
SUMMARY LOOK AHEAD  
R75 Commuter Rail Program

UPDATE:08-Jan-93

Cont. No.	Contractor/Description	Contract Type	Advertise Date	Pre-Bid Meeting	Bid Opening	Bid Report Complete	RCC Board Approval	Comm. Approval	Contracts Lead\Engineering Lead\Project Controls Lead\Compliance
930									\ \ \
C621									\ \ \
C6210	SYLMAR STATION	FP	11/10/92	11/24/92	12/09/92	12/21/92		01/15/93	METOYER \CRARY \FERGUSON \
C6220	SYSTEM STANDARD PLATFORM CONST	FP							\ \ \
C6230	LA RIVER TRACK IMPROVEMENTS	FP	09/28/92	10/06/92	10/30/92	11/06/92		11/13/92	METOYER \CRARY \FERGUSON \
C6240	LAUPT TRACKWORK	FP							\ \ \
C6250	LOS ANGELES RIVER BRIDGE	FP	09/30/92	10/28/92	11/24/92	12/04/92		12/11/92	METOYER \CRARY \FERGUSON \
C6260	BROADWAY CONNECTOR TRACKWORK	FP							\ \ \
C6270	TAYLOR YARD ACCESS UNDERPASS	FP							\ \ \
C6280	COAST & SAUGUS LINES FIBER OPTIC C	FP							\ \ \
C6290	CLAREMONT-SAN BERNARDINO TRACK	FP							\ \ \
C6300	SAN BERNARDINO LAYOVER	FP							\ \ \
C6310	MISSION TOWER REHABILITATION	FP							\ \ \
C6320	MONTCLAIR SIDING	FP							\ \ \
C6340	RIVERSIDE STATION PLATFORMS	FP	11/19/92	12/01/92	12/28/92	01/04/93		01/15/93	MCNEIL-KAKARIS\SHAH \FERGUSON \
C670									\ \ \
C6700	Track & Stations - San Bernar./Riverside	FP	12/18/92	12/18/92	01/11/93	01/13/93		01/15/93	Lia McNeil-Kaka\Shah \
C6710	WEST BANK S DBL TRACK		01/02/93					03/01/93	SECHLER \ \ \
C6720	CAL STATE LA STATION	FP							SECHLER \ \ \
C6730	REDONDO JUNCTION - HOBART		12/03/93					03/03/93	SECHLER \ \ \
C6740	FULLERTON 3RD TRACK	FP							SECHLER \ \ \



RAIL CONSTRUCTION CORPORATION  
PRE CONTRACT STATUS SCHEDULE  
SUMMARY LOOK AHEAD  
R75 Commuter Rail Program

UPDATE:08-Jan-93

Cont. No.	Contractor/Description	Contract Type	Advertise Date	Pre-Bid Meeting	Bid Opening	Bid Report Complete	RCC Board Approval	Comm. Approval	Contracts Lead\	Engineering Lead\	Project Controls Lead\	Compliance
C6750	FIVE NEW CROSSEOVERS	FP	12/01/92					04/27/93	SECHLER \	\	\	
C6760	HOBART CROSSOVER	FP	02/01/93					06/28/93	SECHLER \	\	\	
C6780	SANTA ANA RIVER BRIDGE/ANAHEIM-O	FP	07/01/93					11/01/93	SECHLER \	\	\	
C6790	SAMTOAGP CR/ BRIDGE	FP	06/01/93					09/01/93	SECHLER \	\	\	
C6800	SANTA ANA (ALISO)-GALIVAN DBL. TRK	FP	05/01/93					08/01/93	SECHLER \	\	\	
C6810	SANTA ANA (ALISO) - GALIVAN DBL. TRK	FP	05/01/93					08/01/93	SECHLER \	\	\	
C6820	ORANGE - SANTA ANA DBL TRK	FP	07/01/93					10/01/94	SECHLER \	\	\	
C6830	SAN JUAN CAPISTRANO LINE CHANGE	FP	01/01/94					01/04/94	SECHLER \	\	\	
C6840	SAN JUAN CAPISTRANO - SERRA DBL T	FP	08/01/93					11/01/93	SECHLER \	\	\	
C6850	MISSION TOWER AND WEST BANK		07/01/93					10/01/93	SECHLER \	\	\	
C6860	MISSION TOWER AND WEST BANK		07/01/93					10/01/93	SECHLER \	\	\	
C6870	MISSION TOWER AND WEST BANK		07/01/93					10/01/93	SECHLER \	\	\	
C6880	MISSION TOWER TO SOTO STREET	FP	09/01/92					12/01/92	SECHLER \	\	\	
C6890	RIVERSIDE LAYOVER FACILITY	FP							SECHLER \	\	\	
C6900	SIDINGS RIALTO - RANCHO CUCAMONG	FP	11/01/93					03/01/94	SECHLER \	\	\	
C6910	UPGRADE TRK LA VERNE - SAN BERNAR	FP	11/01/93					03/01/94	SECHLER \	\	\	
C6920	UPGRADE SIGNALLING LA VERNE-SAN B	FP	01/06/93					08/02/93	SECHLER \	\	\	
C6930	PASADENA CONNECTION (CLAREMONT	FP						01/09/93	SECHLER \	\	\	
C6940	SAN BERNARDINO LAYOVER (INITIAL)	FP	12/01/92					01/15/93	SECHLER \	\	\	
C6950	SAN BERNARDINO LAYOVER (COMPLET	FP	07/01/93					09/30/93	SECHLER \	\	\	
C6960	ARLINGTON - PROPHRY	FP							SECHLER \	\	\	
C6970	PROPHRY - PRADO DAM	FP							SECHLER \	\	\	

RAIL CONSTRUCTION CORPORATION  
PRE CONTRACT STATUS SCHEDULE  
SUMMARY LOOK AHEAD  
R75 Commuter Rail Program

UPDATE:03-Jan-93

Cont. No.	Contractor/Description	Contract Type	Advertise Date	Pre-Bid Meeting	Bid Opening	Bid Report Complete	RCC Board Approval	Comm. Approval	Contracts Lead\Engineering Lead\Project Controls Lead\Compliance
C6980	LAMBERT - ESPERANZA	FP							SECHLER \ \ \
C6990	UPGRADE AND EXTEND SAUGUS SIDING	FP	04/30/93					07/01/93	SECHLER \ \ \
C7000	SIDING AT SUN VALLEY	FP	04/30/93					07/01/93	SECHLER \ \ \
C7010	CTC STRATHERN - MOORPARK	FP							SECHLER \ \ \
C7020	UPGRADE CHATSWORTH SIDING	FP	03/31/93					05/28/93	SECHLER \ \ \
C7030	EAST SIMI SIDING (NO CTC)	FP	03/31/93					05/28/93	SECHLER \ \ \
C7040	CTC RAYMER- STRATHERN	FP	02/26/93					07/30/93	SECHLER \ \ \
C7050	CTC MOORPARK - GOLETA	FP	03/01/93					01/03/94	SECHLER \ \ \
C7060	SIDINGS CAMERILLO, CARPENTERIA	FP	03/01/93					05/28/93	SECHLER \ \ \
C7070	TRK IMPROV. LAUPT BURKBK JUCT. TAY	FP	03/01/93					05/28/93	SECHLER \ \ \
C7080	SIDINGS. VENTURA, SEACLIFF, GOLETA	FP	03/01/93					05/28/93	SECHLER \ \ \
C7090	SAN CLEMENTE STATION	FP	05/01/93					08/01/93	SECHLER \ \ \
C7100	SAN JUAN CAP. - NORTH PLATFORM	FP	04/01/93					06/01/93	SECHLER \ \ \
C7110	SAN JUAN CAP. - SOUTH PLATFORM	FP						12/01/93	SECHLER \ \ \
C7120	SOUTH COUNTY (MISSION VIEJO) STATION	FP	04/01/93					07/01/93	SECHLER \ \ \
C7130	IRVINE STATION	FP	04/01/93					07/01/93	SECHLER \ \ \
C7140	TUSTIN/NORTH IRVINE STATION	FP	09/01/93					12/01/93	SECHLER \ \ \
C7150	SANTA ANA STATION	FP	04/01/93					07/01/93	SECHLER \ \ \
C7160	CITY OF ORANGE STATION	FP	03/01/93					06/01/93	SECHLER \ \ \
C7170	ANAHEIM STATION	FP	04/01/93					07/01/93	SECHLER \ \ \
C7180	FULLERTON STATION	FP							SECHLER \ \ \
C7190	BUENA PARK STATION	FP	07/01/94					10/01/94	SECHLER \ \ \

RAIL CONSTRUCTION CORPORATION  
PRE CONTRACT STATUS SCHEDULE  
SUMMARY LOOK AHEAD  
R75 Commuter Rail Program

UPDATE:08-Jan-93

Cont. No.	Contractor/ Description	Contract Type	Advertise Date	Pre-Bid Meeting	Bid Opening	Bid Report Complete	RCC Board Approval	Comm. Approval	Contracts Lead\Engineering	Lead\Project Controls	Lead\Compliance
C7200	UNION STATION MODIFICATION	FP	12/10/92	12/14/92	12/29/92	01/02/93		01/15/93	METOYER \CRARY	\	\
DISPL	AY MEMORY								\	\	\
H2100	LAUPT MOBILITY AID DEVICES		06/26/92		11/15/92	12/04/92		12/11/92	SECHLER \SOLOW	\FERGUSON	\
XXXXX									\	\	\

## EXECUTIVE SUMMARY

The EMC reported an 11% gain in production during the month and continues to update the completion plan identifying the activities and resources required to complete the Preliminary Engineering Scope in time for Project Adoption.

The EMC issued a Capital Plan budget based on design drawings developed through mid-December and broken out by construction contracts. The Design Criteria was issued and reviewed in meetings with the City of Pasadena. Outstanding issues such as grade separation along Marmion Way and Colorado Boulevard and the different alignment alternatives along Alameda were addressed.

Review and coordination with the many City and County agencies, as well as with the various transportation agencies (e.g., SCRTD, LADOT, Metrolink) remained key activities as design and alignment issues were identified and finalized.

Public Affairs continues its community outreach program and has conducted meetings with the communities of Highland Park, Chinatown, South Pasadena, and Pasadena. This strategy is clearing a path for future coordination and cooperation with the communities that will be a part of this project. The TOP program has been implemented in Franklin High School and will officially kick-off in January 1993. In addition, Public Affairs will be planning a public ground breaking ceremony for the first quarter of 1993.

As of month-end December, Preliminary Engineering was 71% complete with a forecasted completion by the end of the 1st quarter, 1993.

## AREAS OF CONCERN

### ONGOING

#### Yard Site Location

Concern: The Cornfield Site, West Bank Site, and the Taylor Yard are in the SEIR process. A location for the eventual yard site has yet to be approved.

Action: The Area Teams will complete the SEIR for the yard options.

**Status:** The draft SEIR was approved by the Commission and released for public review. Certification of the final SEIR is still targeted for January 1993. A temporary maintenance facility at the Midway Yard is now being proposed because of budget constraints and community concerns.

#### **Catellus/Ratkovitch Interface At LAUPT/Terminal Annex**

**Concern:** Location of the LRT terminus station at Union Station involves interface with Catellus Corporation. The alignment also crosses Ratkovitch interests at Terminal Annex.

**Action:** RCC is to set up a meeting with Catellus and Ratkovitch to discuss the Pasadena Alignment and its potential interfaces with their proposed developments.

**Status:** Monthly meetings continue, on an information only basis. LACTC leadership in resolving these issues is on-going with the RCC providing support as needed.

#### **Chinatown**

**Concern:** The Chinatown community has requested an aerial pedestrian walkway from Broadway Street to the Chinatown Aerial Station.

**Action:** RCC is looking at possible design considerations and how the walkway will interface with the alignment through Chinatown.

**Status:** In a meeting with Chinatown officials, artist renderings were presented depicting various design considerations. RCC is continuing to look at the interface of this "gateway" to Chinatown with respect to the aerial station.

#### **Janss Development**

**Concern:** Location of the Memorial Park station involves interface with the Janss Development. Janss has not responded to RCC review comments. The depth of foundations being designed and constructed has yet to be confirmed.

**Action:** RCC is to provide written notification to Janss, with a copy to the City of Pasadena, stating RCC's position regarding below-grade, noise, and vibration impacts.

Status: Working with the City of Pasadena, continue to monitor construction progress of Janss Development.

#### KEY ACTIVITIES - DECEMBER

- Geotechnical and Environmental reports for the Del Mar to Sierra Madre Villa segment are in process. These should be finalized in January 1993.
- Briefed Executive Director as to budget/scope concerns for the Pasadena Project during the first and last weeks of December. At the latter meeting, a baseline budget was agreed upon, and will be presented to the PMIC, RCC, and LACTC Boards for consideration.
- Completed negotiations and awarded contracts to the top-rated firms on the first three design packages (L.A. River Bridge, Arroyo Seco Bridge, and Chinatown Aerial Structure.) The design of the Yard & Shop Facility has been placed on hold until after Project Adoption.
- Reviewed the Midway Yard concept with EMC/LACTC/SCRRA representatives. RCC to continue discussions on this alternative with SCRRA and RTD during the week of January 04, 1993.
- Received a draft of the Alameda Alternatives Study from the EMC during December. Acceptance of the study is expected by January 11, 1993.
- Received the Preliminary Capital Budget from the EMC on December 31, 1992.
- Continued advance planning studies for CALTRANS Bridgework along the I-210 Freeway. The report should be submitted in January 1993.
- Began preparation of the Project Adoption package.

**KEY ACTIVITIES - PLANNED FOR JANUARY**

- Receive proposals from section designers for Final Design Engineering of the four line segments of the alignment.
- Finalize and resolve "Project Team Alignment" action items. This includes establishment of "KEY RESULT AREAS" and identification of Customer/Supplier requirements.
- Complete Real Estate matrix/budget.
- Receive Yard SEIR certification, set for January 27, 1993.
- Finalize preparation of the Project Adoption package; LACTC Board approval targeted for January 27, 1993.
- Issue RFQ for Construction Management services by January 19, 1993.

## EXECUTIVE SUMMARY

### COST STATUS (in \$ millions)

- Current Budget 722
- Current Forecast 738

### SCHEDULE STATUS

- Current Approved Revenue Operations Date May, 1995
- Design Progress
  - Plan 100%
  - Actual 99%
- Construction Progress
  - Plan 51%\*
  - Actual 41%

\* plan percentage reflects the current target schedule

### REAL ESTATE STATUS

MONTH	NUMBER OF PARCELS	PARCELS AVAILABLE	PARCELS NOT AVAILABLE (ON SCHEDULE)	PARCELS NOT AVAILABLE (BEHIND SCHEDULE)	
				NUMBER	AVG DAYS BEHIND
THIS MONTH	39	39	0	0	0
LAST MONTH	39	39	0	0	0



## AREAS OF CONCERN

### NEW

There are no new areas of concern to report this period.

### ONGOING

#### **Contract C0100 (Aerial Guideways) Schedule Impacts to Contract C0610 (El Segundo Trackwork Installation) and the November 1994 Revenue Operations Date (ROD)**

**Concern:** The Contract C0100 schedule may impact Contract C0610 access dates with potential impact to the November 1994 ROD upon final resolution of outstanding delay and impact issues such as delayed contract access due to Chevron interface and the El Segundo Station re-design for additional stairs.

**Action:** Issuance of unilateral change orders and interface with the Contract C0610 contractor to mitigate possible future impacts is in progress. The possibility and associated costs of a 60 day delay to Contract C0610 is also being evaluated.

**Status:** Schedule impacts were relayed to the contractor. The contractor identified costs to accelerate the trackwork in the El Segundo leg to be in the amount of \$800,000.

#### **Caltrans Project CT033 (Wilton to Vermont)/Contract C0600 (Century Trackwork Installation) Access Date Conflict**

**Concern:** Site access for Century trackwork installation originally scheduled November 1, 1992 has been withheld until the contract milestone is satisfied and construction is completed. Complete access is forecasted for September 1, 1993. This will have a negative impact to the November 1994 ROD by approximately two months. Several systems contracts may also be affected.

**Action:** Caltrans is working aggressively with its contractor, Ball, Ball & Brosamer to overcome problems associated with soil exportation and has requested the contractor to produce a schedule with a target completion date of late August 1993.

**Status:** Excavation of the site has started. Caltrans has directed its contractor to complete construction by September, 1993.

**Contract C0501 (Systems Facilities Sites) Schedule Delays**

- Concern:** Inability of the contractor to meet schedule dates and unavailability of Caltrans sites are impacting the segmental ROD and Contract H1200 (Traction Power Supply System) interface dates by approximately one month.
- Action:** An effort is being made to assist contractor in expediting submittals and working to a schedule. The contractor's latest schedule narrative indicates seven day work weeks as a remedial work plan.
- Status:** The OKA Resident Engineer and staff are working on a daily basis with the contractor to implement a contract schedule which meets project goals. The contractor has scheduled seven day work weeks with ten hour days during the month of January, 1993; site work is being expedited.

**Caltrans Project CT043-2 (I-105 to Studebaker)/Contract C0600 (Century Trackwork Installation) Access Dates**

- Concern:** A later than anticipated LRT access date to this segment may have significant cost impact to some follow-on systems contracts and minor schedule impact to the segmental ROD by approximately one week.
- Action:** Workaround scenarios to expedite turnover to the Contract C0600 contractor have been developed.
- Status:** The contractor's initial cost proposal to expedite turnover was unacceptable. Turnover is now anticipated at the contract completion date.

**Caltrans Permits**

- Concern:** Caltrans encroachment permits are required for each contract working within Caltrans right-of-way.
- Action:** The full permits for Contracts C0600 (Century Trackwork Installation) and H1200 (Traction Power Supply Systems) were issued May 15 and June 12, 1992, respectively. The permit for Contract C0501 (Systems Facilities Sites) was issued on July 20, 1992; permits for Contracts H1100 (Automatic Train Control), and H1400 (Overhead Contact System) were both issued on June 4, 1992. The RCC is awaiting receipt of the permit for Contract C0610 (El Segundo Trackwork Installation) issued August 26, 1992.
- Status:** RCC will apply for additional and remaining contract permits as necessary. Contract H1300 (Signage and Graphics) was advertised in December, 1992. The pre-bid meeting has been scheduled for January 6, 1993, the bid opening for February 3 and the Notice To Proceed for April 19.

**Caltrans Project CT046 (Vermont to Main)/Contract C0600 (Century Trackwork Installation) Access Date Conflict**

- Concern:** Site access for Century trackwork installation originally scheduled May 1, 1992 will be withheld until the contract milestone is satisfied and construction is completed. Complete access was forecast for September 15, 1992.
- Action:** All work-arounds are being explored. The Caltrans contractor is being requested to control its schedule and the subcontractor's schedule. Partial access to allow the Contract C0600 contractor an opportunity to start work in small areas is being pursued. OKA has published a contractor's schedule for the remaining LRT work which is being used by OKA, Caltrans and the contractor to measure progress and forecast turnover dates.
- Status:** The facilities/structures contractor has not completed the project to satisfaction. The ballast section was scheduled for turnover in early November 1992 but a walk-through indicated additional work needs to be completed by the facilities contractor before turnover can take place. The contractor has submitted to Caltrans a tentative schedule for OKA review. The Contract C0600 contractor will be given access to the structures as soon as they become available.

**Remedial Work: Caltrans Projects CT037 (La Cienega to Inglewood), CT044-1 (Santa Fe to Atlantic), CT046 (Vermont to Main) and CT047 (Atlantic to Garfield)**

- Concern:** Documentation indicates that there are bent anchor bolts, incorrect anchor bolt sizes, lack of anchor bolt protection, lack of proper grounding, conduits not mandrelled and lack of continuity straps in the above Caltrans projects. The remedial work, if not completed in a timely manner, could impact the follow-on systems Contracts H1200 (Traction Power Supply System) and H1400 (Overhead Contact System).
- Action:** In Project CT044-1, the deficient items were given to Caltrans as part of the punch list requiring completion prior to LRT turnover. The Caltrans Resident Engineers on Projects CT037, CT046 and CT047 have been informed of the deficiencies.
- Status:** Correction of bent anchor bolts has been completed on Project CT047. Caltrans electrical personnel have been informed of the deficient grounding of OCS anchors and are to make appropriate corrections. All corrections are to take place prior to final acceptance of the LRT facilities supplied by Caltrans.

**RESOLVED** No areas of concern were resolved this reporting period.

**KEY ACTIVITIES – DECEMBER 1992**

- Advertised for Bid Contract H1300 (Signage and Graphics).
- Advertised for Bid Contract H0889 (Light Rail Radio System) which replaces Contract H0888.
- Awarded Contract C0095 (Wayside Intrusion Detection System) to Moran Company.
- Awarded Contract H0901 (Platform Intrusion Detection System) to Mass Electric Construction Company.

**KEY ACTIVITIES – PLANNED FOR JANUARY 1993**

- Issue Notice to Proceed to the Contract C0095 (Wayside Intrusion Detection System) contractor, Moran Company.
- Issue Notice to Proceed to the Contract H0901 (Platform Intrusion Detection System) contractor, Mass Electric Construction Company.
- Open bids for Contract H0889 (Light Rail Radio System).

O'BRIEN-KREITZBERG  
RCC  
Project: R23

RAIL CONSTRUCTION CORPORATION  
METRO GREEN LINE - NORWALK/EL SEGUNDO  
Project Cost by Element

Page: 1  
Report Date: 01/11/93  
Status Date: 12/31/92

[ \$ x 000's ]

Description	----- Budget -----		--- Commitments ---		-- Incurred Cost --		--- Expenditures ---		Current	
	Original (1)	Current (2)	Period (3)	To Date (4)	Period (5)	To Date (6)	Period (7)	To Date (8)	Forecast (9)	Variance (9-2)
T Construction	470,192	567,950	227	368,739	29,271	161,551	29,199	147,651	496,078	(71,872)
S Professional Services	108,562	109,629	1,519	140,113	2,798	109,262	3,894	104,473	180,600	70,971
R Real Estate	36,927	29,232	0	24,015	63	23,068	63	23,068	28,523	(709)
F Utility/Agency Force Accounts	7,656	10,500	105	9,302	38	2,413	37	2,412	10,500	0
D Special Programs	4,676	4,790	0	1,018	0	292	1	210	4,790	0
C Contingency	59,613	14,100	0	0	0	0	0	0	24,029	9,928
A Project Revenue	(16,626)	(13,798)	(10)	(1,260)	(10)	(601)	(10)	(601)	(6,518)	7,280
Project Grand Total :	671,000	722,402	1,841	541,928	32,159	295,986	33,185	277,213	738,000	15,598

RAIL CONSTRUCTION CORPORATION  
METRO RAIL GREEN LINE PROJECT  
(IN THOUSANDS OF DOLLARS)

NOVEMBER 92

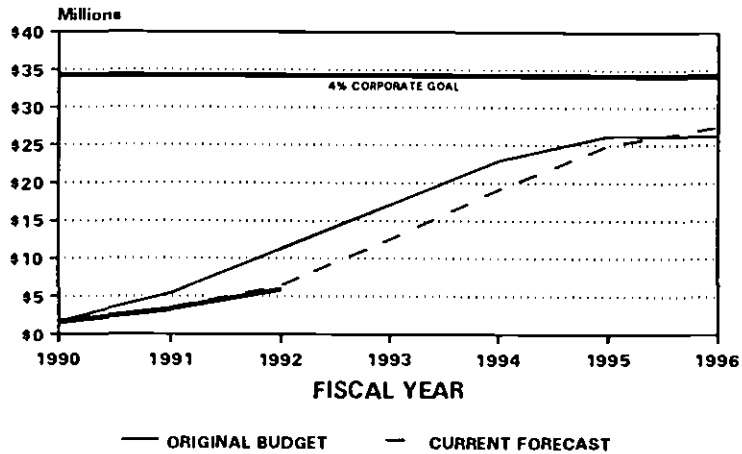
STATUS OF FUNDS BY SOURCE

SOURCE	TOTAL FUNDS ANTICIPATED	TOTAL FUNDS AVAILABLE	COMMITMENTS		EXPENDITURES		BILLED TO SOURCE	
			\$	%	\$	%	\$	%
LACTC PROP A	\$205,136	\$205,136	\$205,136	100%	\$205,136	100%	\$205,136	100%
LACTC PROP C	\$532,864	\$189,700	\$336,792	63%	\$72,077	14%	\$72,077	14%
TOTAL	\$738,000	\$394,836	\$541,928	73%	\$277,213	38%	\$277,213	38%

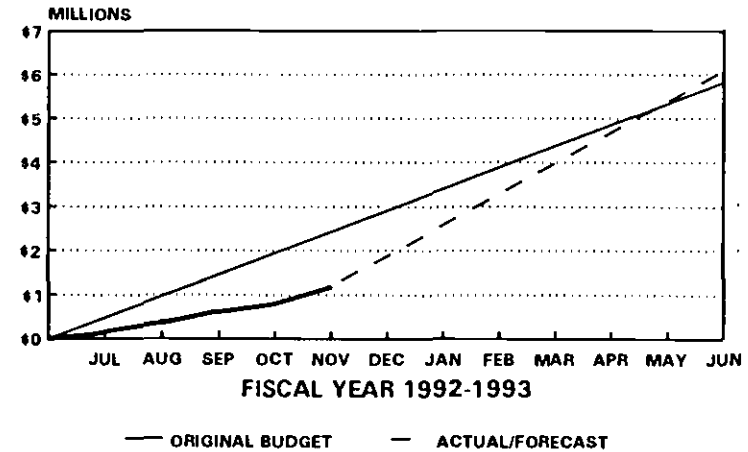
METRO GREEN LINE

DECEMBER 1992

### AGENCY COST GREEN LINE



### FISCAL 1993 AGENCY COSTS GREEN LINE



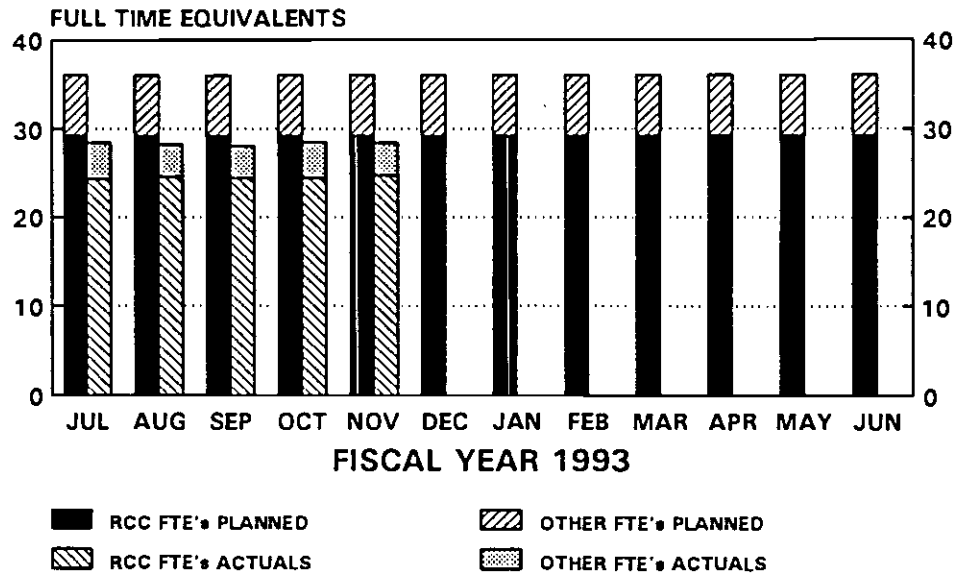
### PROJECT AGENCY COSTS GREEN LINE (\$000)

TOTAL PROJECT BUDGET	\$716,000
ORIGINAL BUDGET	\$ 26,189
BUDGET % OF TOTAL PROJECT	3.7%
CURRENT FORECAST	\$ 27,407
FORECAST % OF TOTAL PROJECT	3.8%
4% CORPORATE GOAL	\$ 28,640

### FISCAL YEAR 1993 AGENCY COSTS GREEN LINE (\$000)

ORIGINAL BUDGET	\$5,833
FORECAST	\$6,099
ACTUAL \$ TO DATE	\$1,178

## STAFFING PLAN VS. ACTUAL GREEN LINE

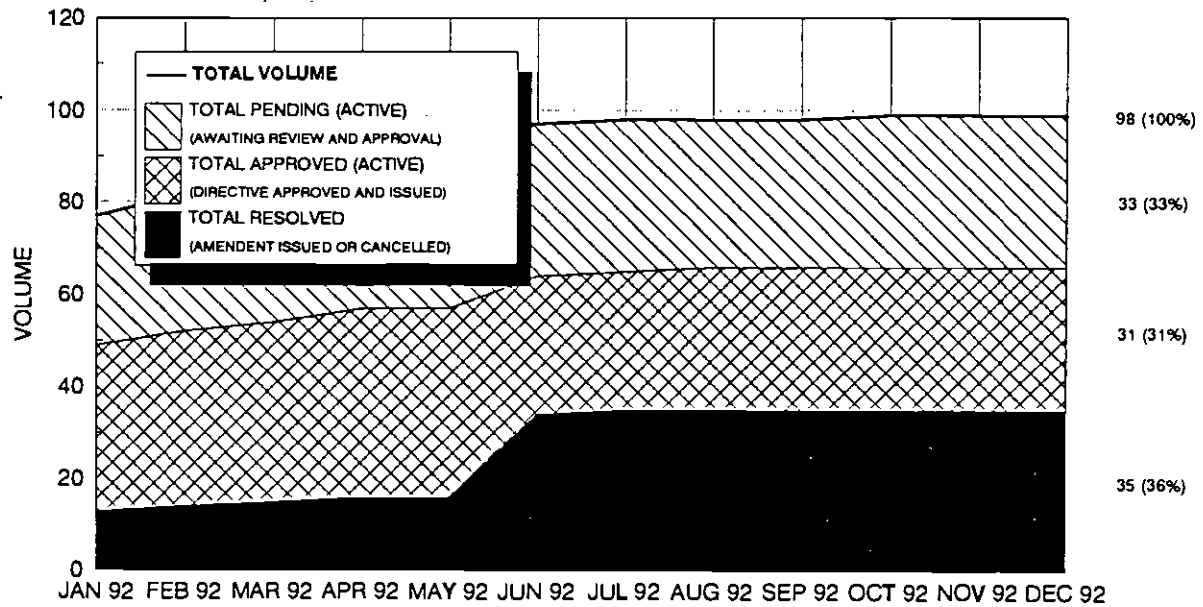


FY'93 BUDGET

## GREEN LINE STAFFING PLAN FISCAL YEAR 1993

RCC FTE's PLANNED	29
RCC FTE's ACTUAL	25
OTHER FTE's PLANNED	7
OTHER FTE's ACTUAL	4
TOTAL FTE's PLANNED	36
TOTAL FTE's ACTUAL	29

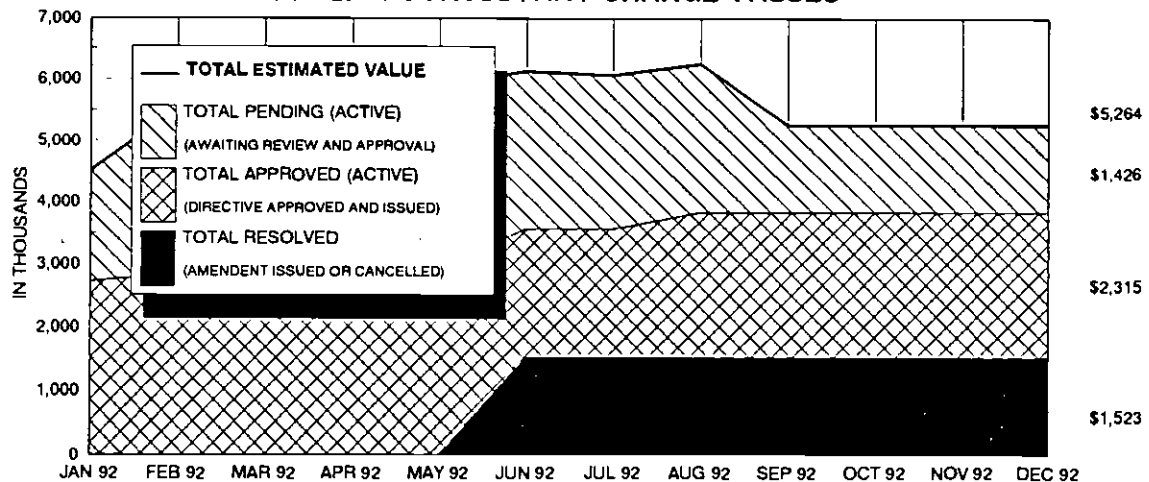
**CONSULTANT CONTRACT CHANGE SUMMARY  
GREEN LINE CONSULTANT CHANGE REQUEST VOLUME**



**AGE OF UNRESOLVED CONSULTANT CHANGES**

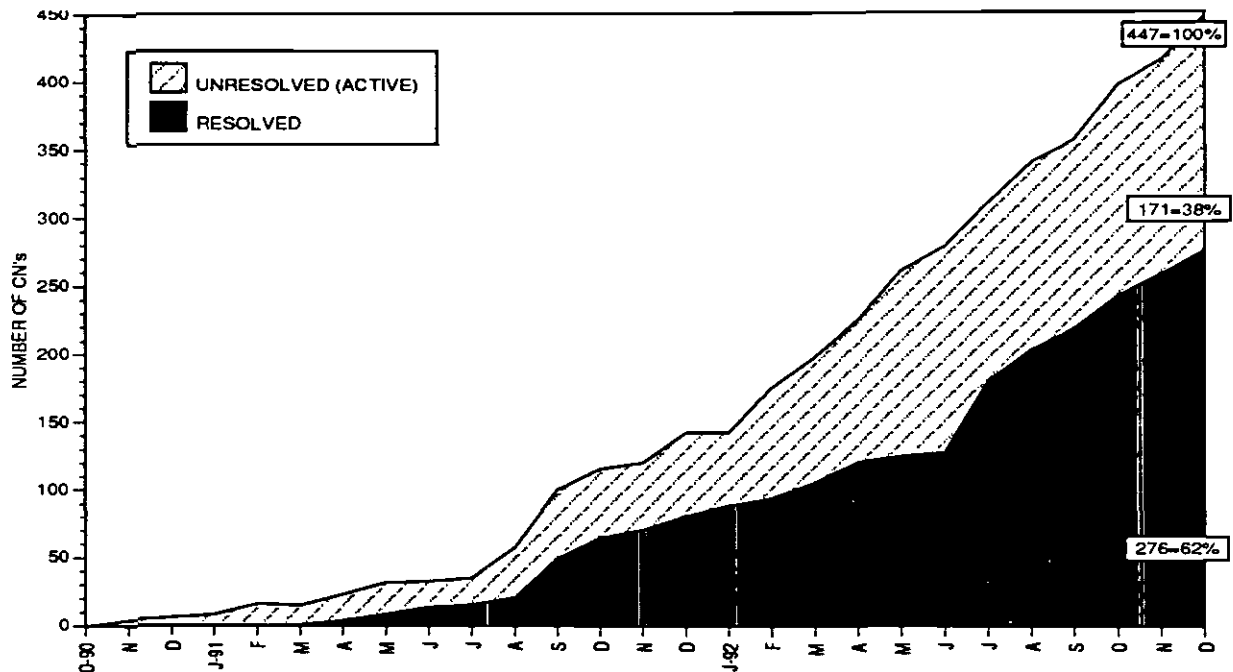
TIME	0-30 DAYS	30-60 DAYS	61-90 DAYS	OVER 90	TOTAL ACTIVE
VOLUME	0	0	0	63	64
PERCENT	0%	0%	0%	100%	100%

**CONSULTANT CONTRACT CHANGE SUMMARY  
GREEN LINE CONSULTANT CHANGE VALUES**



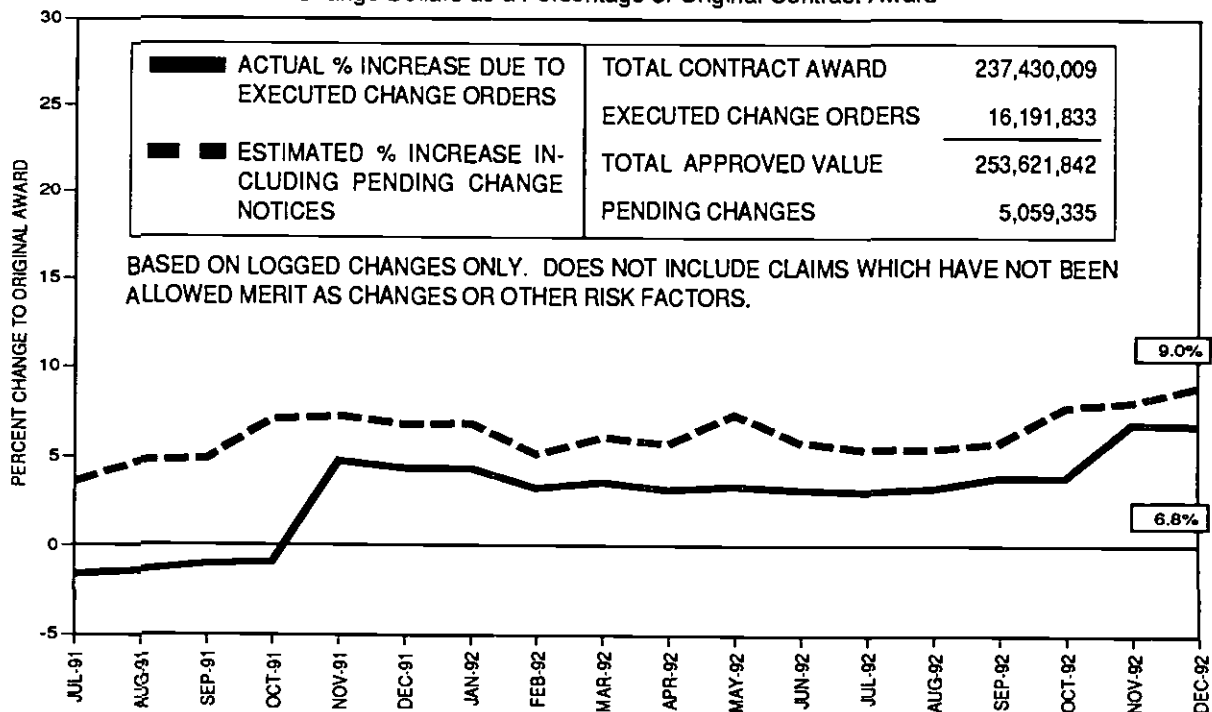


### CONSTRUCTION/PROCUREMENT CONTRACT CHANGES Change Notice Resolution

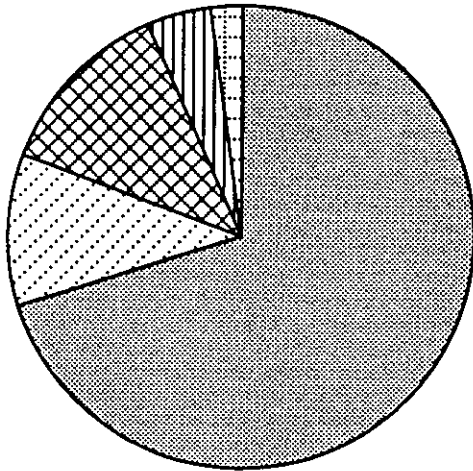


AGE OF UNRESOLVED CHANGES					
TIME	0-30 days	31-60	61-90	90+	TOTAL ACTIVE
VOLUME	42	16	28	85	171
PERCENT	25%	9%	16%	50%	100%

### CONSTRUCTION/PROCUREMENT CONTRACT CHANGES Change Dollars as a Percentage of Original Contract Award



**CONSTRUCTION/PROCUREMENT**  
**Change Volume and Cost By Cost Level**  
 Executed Changes as of 12/30/92



CHANGE VOLUME  
 BY CHANGE VALUE  
 TOTAL AS OF 12/30/92 = 181

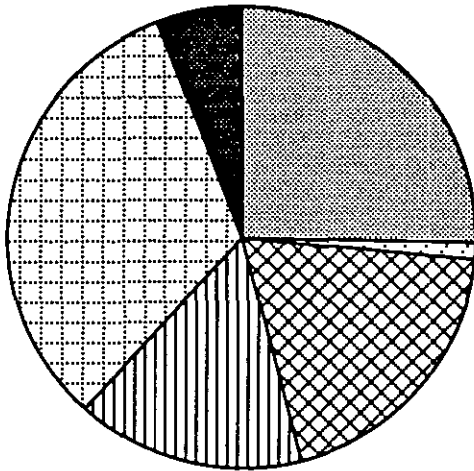
**CHANGE VOLUME  
 ABSOLUTE VALUES**

127	70.16%		<25,000
19	10.50%		<50,000
23	12.70%		<200,000
8	4.42%		>200,000
4	2.21%		>1,000,000

**CHANGE COST  
 ABSOLUTE VALUES**

\$620,217.07		<25,000
\$145,920.68		<50,000
\$2,033,796.00		<200,000
(\$616,647.11)		>200,000
\$14,036,112.00		>1,000,000

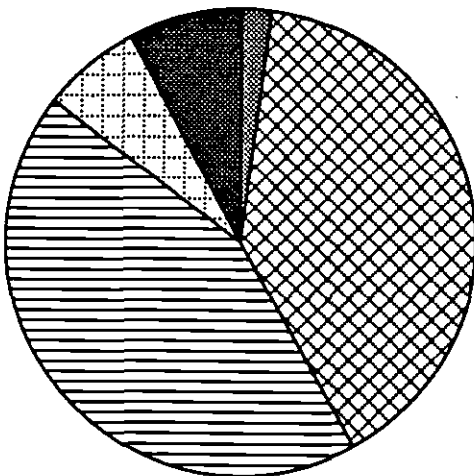
**CONSTRUCTION/PROCUREMENT**  
**Change Volume and Cost By Change Basis Type**  
**Executed Changes as of 12/30/92**



CHANGE BASIS VOLUME  
TOTAL 12/30/92 = 181

**CHANGE BASIS VOLUME  
ABSOLUTE VALUES**

44	24.31%		Work Scope Changes
2	1.10%		Schedule Changes
36	19.89%		Differing Conditions
27	14.92%		Administrative Changes
61	33.70%		Design Changes
11	6.07%		Other

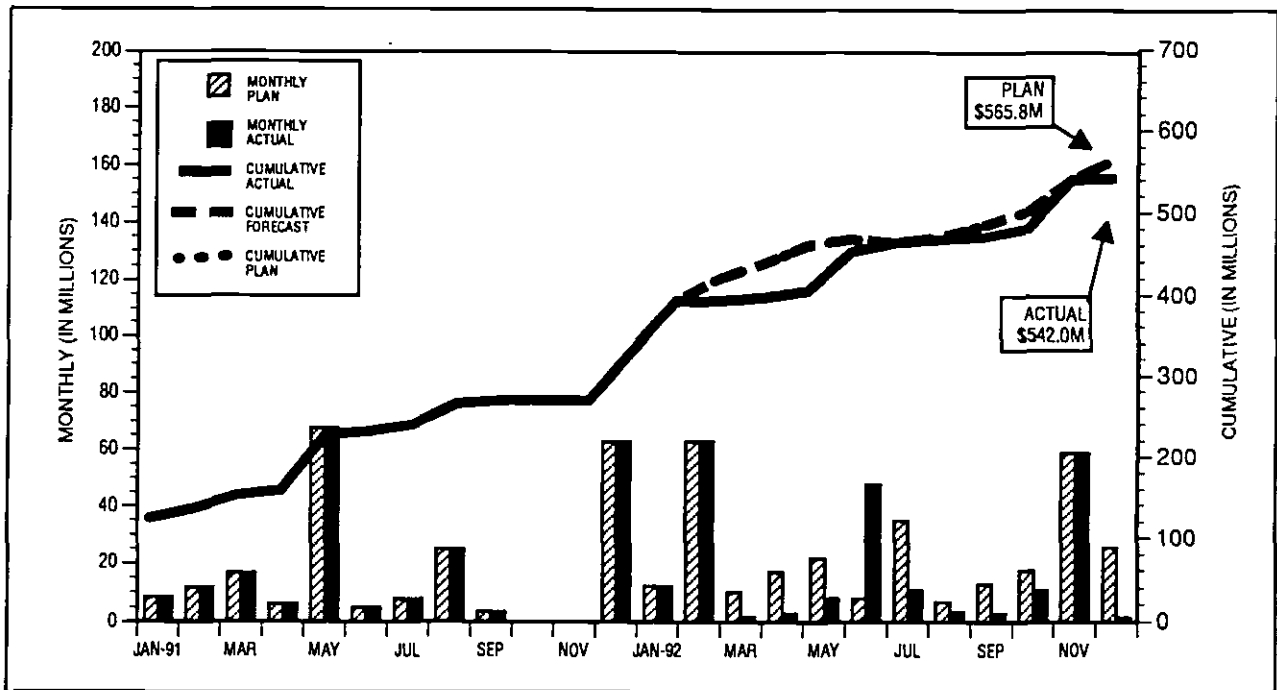
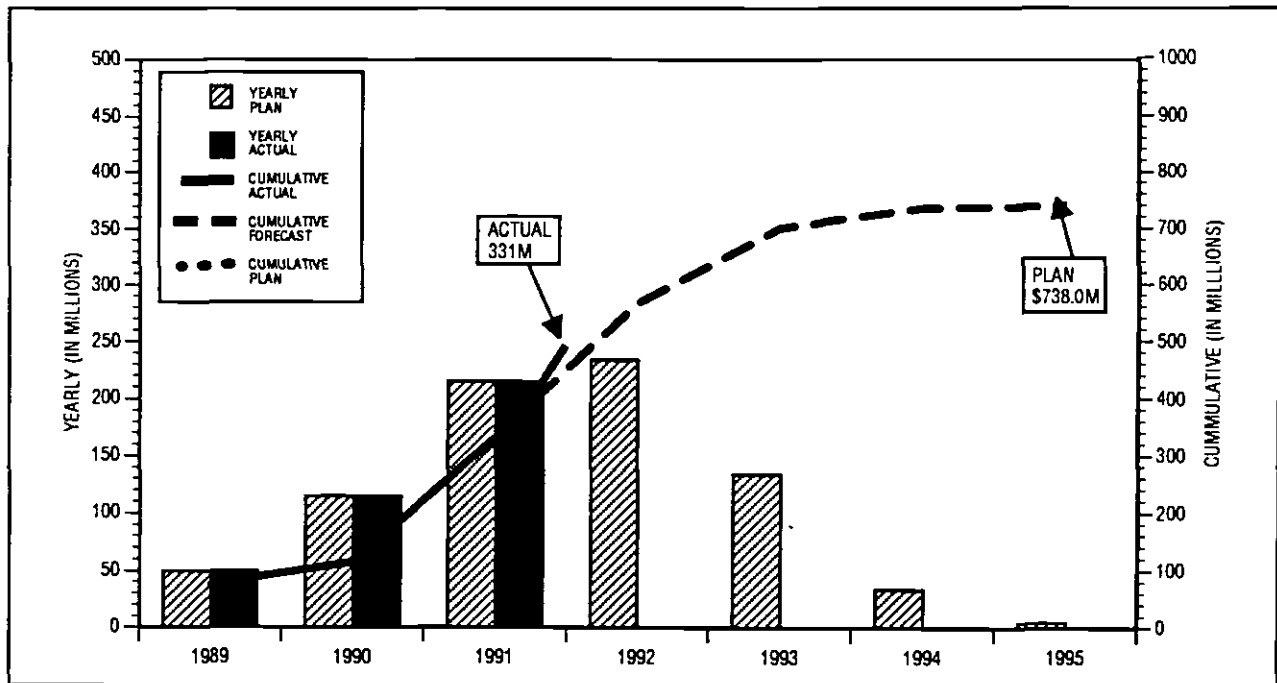


CHANGE BASIS COST  
TOTAL 12/30/92 = 181

**CHANGE BASIS COST  
ABSOLUTE VALUES**

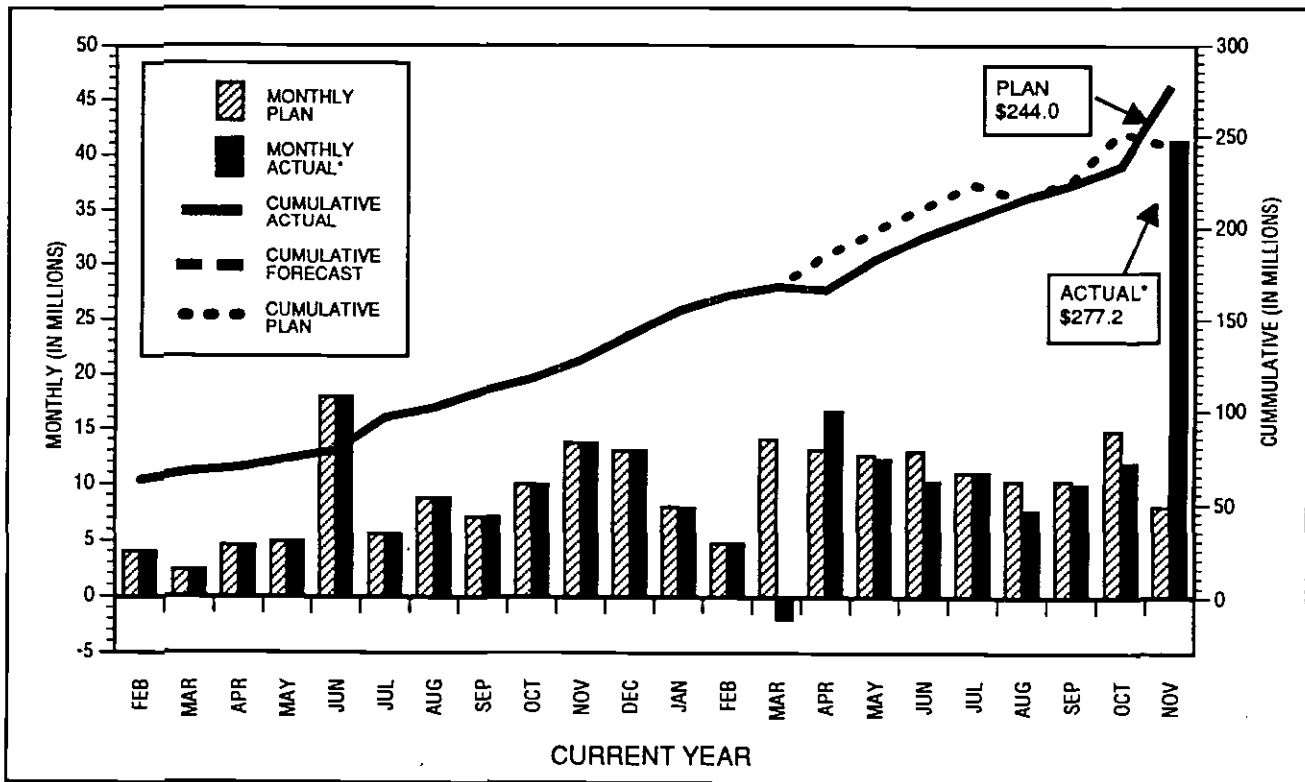
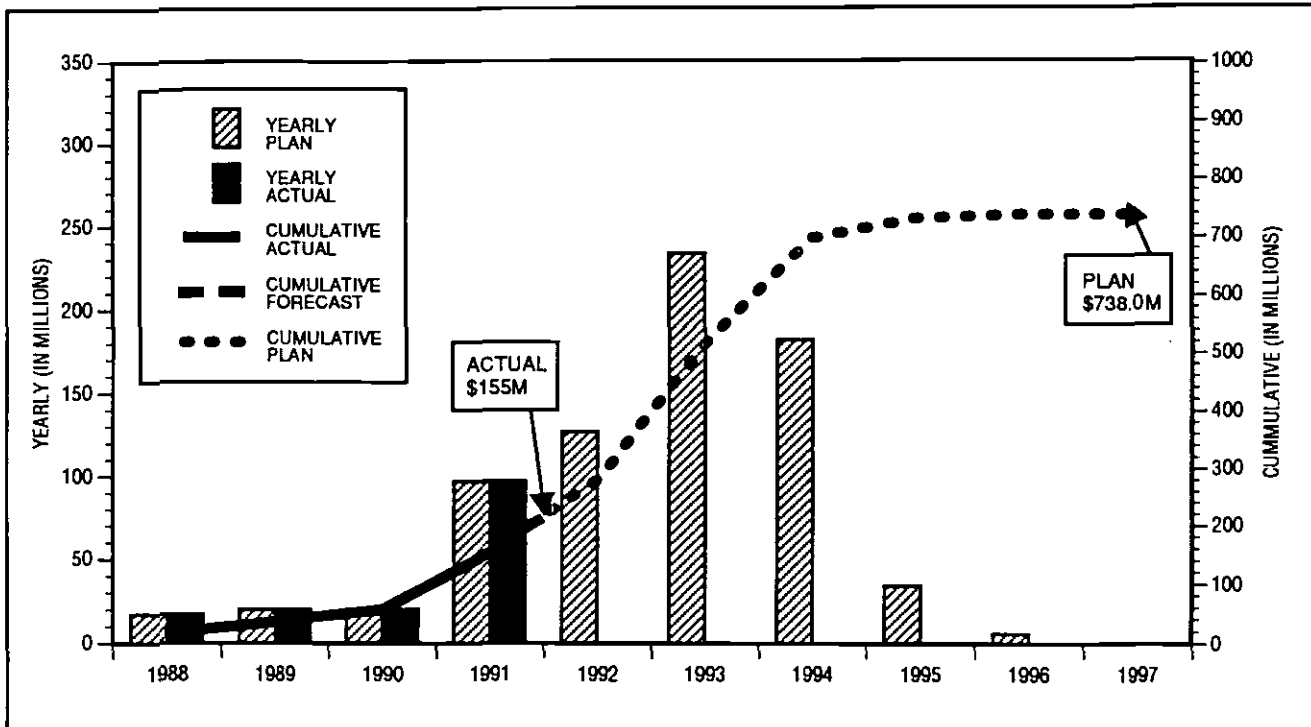
\$329,096.83		Work Scope Changes
\$10,685.00		Schedule Changes
\$6,504,785.38		Differing Conditions
\$7,059,427.29		Administrative Changes
\$502,144.10		Design Changes
\$1,785,694.42		Other

## PROJECT COMMITMENTS



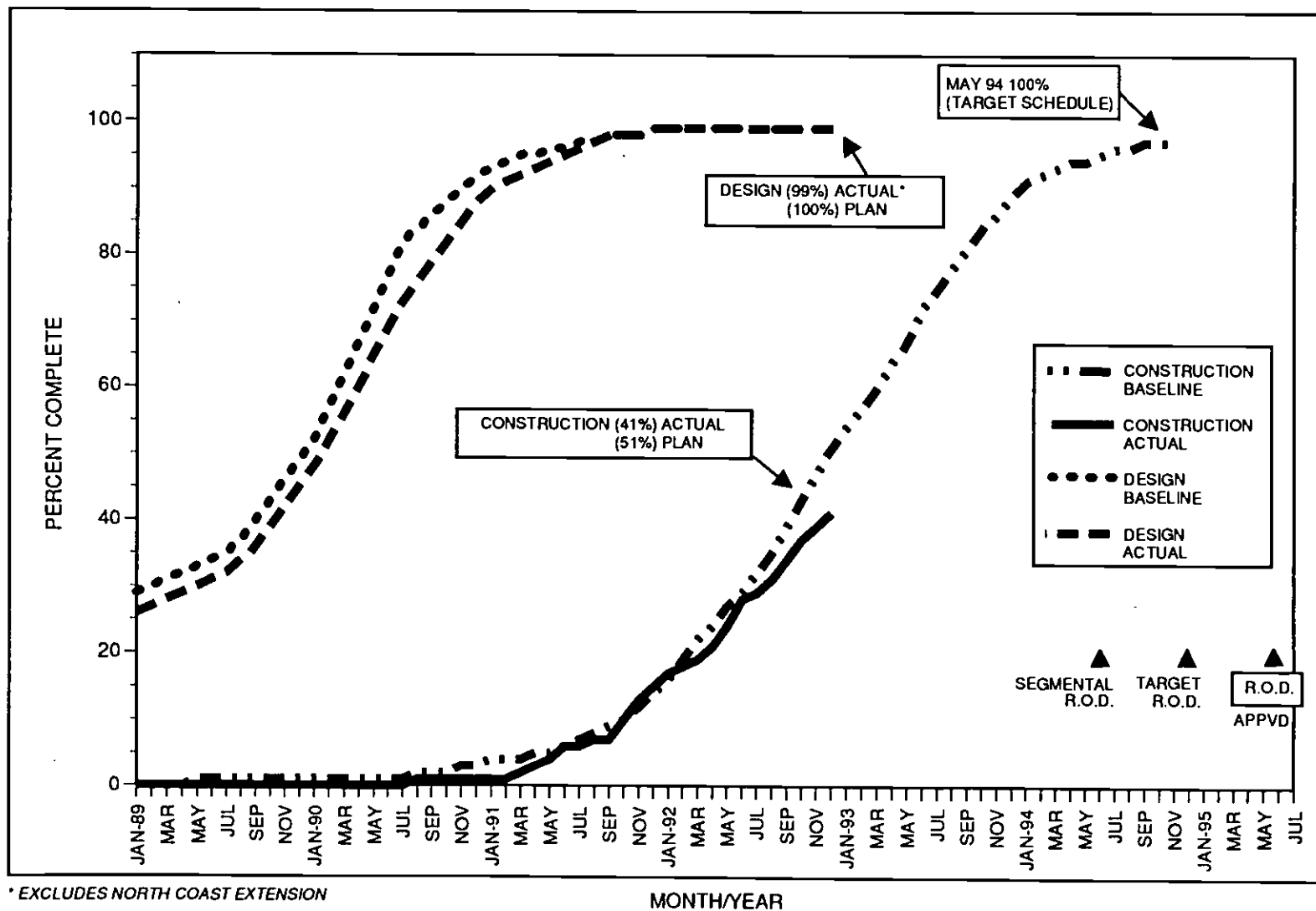
CURRENT YEAR

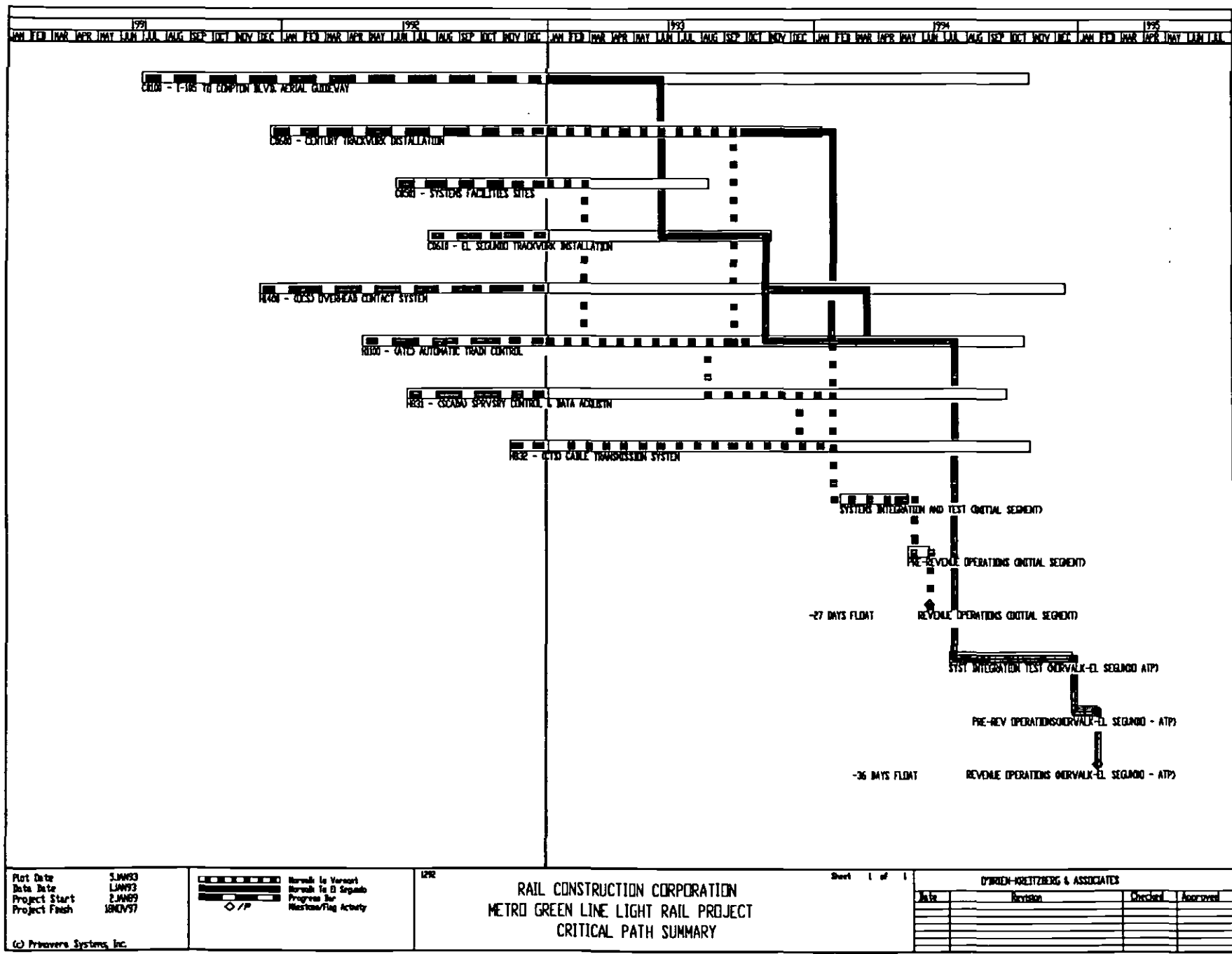
PROJECT CASH FLOW



\* ACTUAL EXPENDITURES ARE THROUGH PREVIOUS MONTH END.

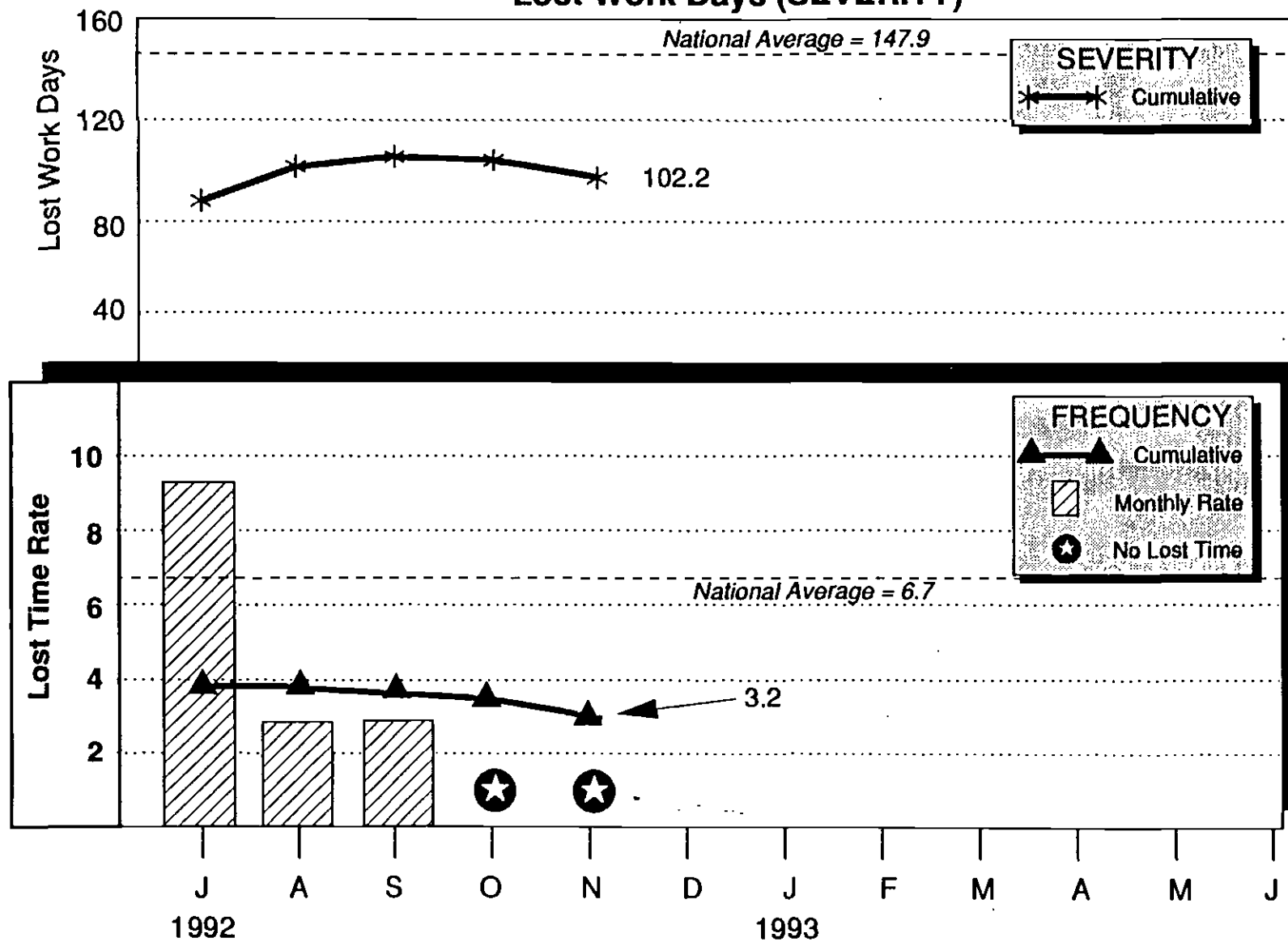
# PROGRESS SUMMARY





# METRO GREEN LINE

## Summary of Lost Time Accidents (FREQUENCY) and Lost Work Days (SEVERITY)





## INVOICE PROCESSING

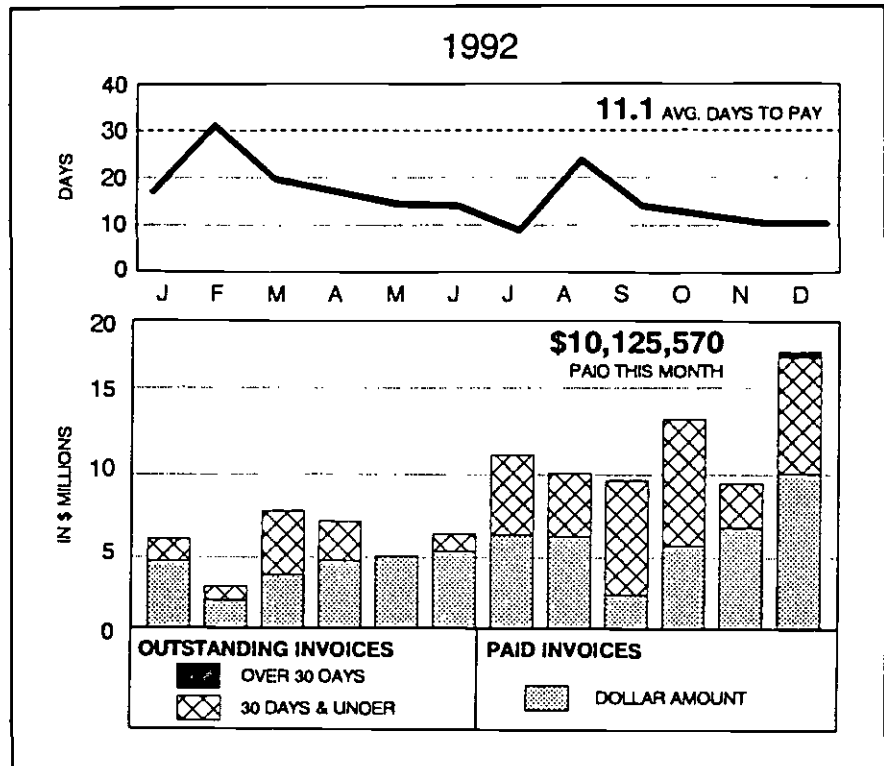
- The average time taken to pay invoices for Construction and Procurement contracts (including Insurance) was 11.1 days.

- 16 invoices were paid for a total value of \$10,125,570.

- There were 21 outstanding Construction or Procurement invoices under 30 days old for \$ 7,623,013.

- There was 1 outstanding Construction or Procurement invoice over 30 days old for \$ 388,860.

## Construction/Procurement Invoice Status



Note: The average days to pay is the time from when the Resident Engineer approves a progress payment (invoice) to when Accounting issues a check for this invoice.

## OUTSTANDING INVOICES

Month	Construction/Procurement Invoices				Other Invoices			
	30 Days and Under		Over 30 Days		30 Days and Under		Over 30 Days	
	Number of Invoices	Dollar Value	Number of Invoices	Dollar Value	Number of Invoices	Dollar Value	Number of Invoices	Dollar Value
JUL 1992	21	5,235,399	0	0	7	270,616	7	88,545
AUG 1992	17	4,122,326	0	0	17	3,808,673	9	197,650
SEP 1992	18	7,529,547	1	45,287	18	4,933,602	11	108,847
OCT 1992	17	8,251,294	0	0	23	2,455,148	5	1,982,568
NOV 1992	10	2,921,509	0	0	13	1,495,399	4	1,980,273
DEC 1992	21	7,623,013	1	388,860	23	3,381,107	5	2,140,155

## EXECUTIVE SUMMARY

### GRANT TRANSFER

- FTA Grant Transfer continuing activities are effecting a smooth transition of responsibilities from the Southern California Rapid Transit District (SCRTD) to the Los Angeles County Transportation Commission (LACTC). The Commission is now the Grantee of Record and possesses full drawdown capability. A grant close-out plan continues to be formulated.

### COST STATUS

in \$ million

- Current Budget 1,450
- Current Forecast 1,450
- The December forecast increased primarily to reflect the proposed "wrap-up" Contract Change Request (CCR) for Parsons-Dillingham's scope of services. Other significant increases were in Legal Services for support of the Contract A145 claim settlement and in Real Estate for condemnation settlement costs.

These increases were partially offset by decreases in other areas. The largest decrease was in pre-revenue operations. The budget baseline in this line item was re-evaluated and resulted in several significant cost cutting measures. Further reductions were due to a decrease in the Rail Construction Corporation (RCC) Project Administration cost in continued anticipation of the early Revenue Operation Date (ROD) and decreases to the maintenance and equipment line item.

### SCHEDULE STATUS

- Current Revenue Operations Date March 1993
- Construction Progress - Plan 99%
- Actual 99%

## EXECUTIVE SUMMARY (CON'T)

- Based upon a seven day work week calendar, pre-revenue operations will be completed on January 10, 1993. The Project Schedule indicates that revenue operations can commence on January 30, 1993. Union Station surface will be complete by January 10, 1993 and the Supervisory Control and Data Acquisition (SCADA) reliability and availability tests will continue during operations.

## SAFETY STATUS

- Safety awareness continues to be promoted among Project personnel with regularly scheduled Red Line Safety meetings. The timely reporting of accidents will be promoted with monthly accident trending (injuries) reports that will assist the Construction Manager in identifying the need for supplementary safety training.

## REAL ESTATE

- All of the real estate required for Segment 1 construction is available under ownership by the Rapid Transit District or under a right-of-entry. Condemnation proceedings have been completed, pending receipt of the final judgment, for the acquisition of the final remaining parcel.

## START-UP TEAM

The Start-up Team (formerly Rail Activation Group) continued coordination and management activities related to systems integration, testing and commissioning activities for the Metro Red Line.

### Activities

During December, the activities of the Start-up team included the following:

- Ongoing review of training schedule and availability of associated materials.
- Support of acceptance testing with Breda vehicles.

## EXECUTIVE SUMMARY (CON'T)

- Continued support of integrated testing and pre-revenue operations.

Future activities will include the following:

- Further delivery and testing of Breda vehicles.
- Refinement of training plan to ensure support of Project requirements.
- Continue review and integration of Breda/Booz Allen & Hamilton (BAH) delivery, testing and training schedule.
- Support of SCRTD Pre-Revenue Operations, Training and Drills.
- Continue exercising Beneficial Occupancy, focusing on equipment, systems and subsystems necessary for Revenue Operations.
- Continue execution of integrated testing schedule in support of Revenue Operations Date.

## FTA PROJECT MANAGEMENT OVERSIGHT CONSULTANT ITEMS FOR RCC ACTION

The following items reflect action requirements identified in the November Monthly Project Report submitted to FTA by their Project Management Oversight Consultant, Hill International.

### ONGOING

#### May 1992, Spot Report #15

- Concern: The spot report addresses four areas of concern that need SCRTD attention.
- Action: There are three remaining issues that have been taken over by the RCC with the grant transfer.
- Status: The merger should facilitate the resolution of these issues. The RCC is addressing the remaining.

**FTA PROJECT MANAGEMENT OVERSIGHT CONSULTANT (CON'T)**  
**ITEMS FOR RCC ACTION**

**May 1992, Grant Close-out Plan**

**Concern:** SCRTD did not complete an accepted grant close-out plan prior to the grant being transferred to the RCC.

**Action:** With the transfer of the grant to the RCC, the RCC should prepare a grant close-out plan.

**Status:** The merger should facilitate the resolution of this issue. The RCC is preparing a grant close-out plan.

**NEW**            **NONE**

**RESOLVED**    **NONE**

**KEY ACTIVITIES - DECEMBER**

- Continued resolution of warranty and punchlist work at Contracts A136, Union Station; A147, Civic Center Station; A157, Pershing Square Station; A167, 7th/Metro Station; and A187, Wilshire/Alvarado Station.
- System contractors continued to provide support to system integration and start-up team.
- Completed A185 activities (i.e., building parking lot, plaza and landscaping) and installation of station pylons.

**KEY ACTIVITIES - PLANNED FOR JANUARY**

- Continue close-out of the following contracts: A112, Main Shop Building; A121, Maintenance of Way Shop Building; A123, Demolition of Structure Parcel A1-009; A130, Yard Leads and Transfer Zone; A134, Demolition of Structure Parcel A1-032; A135, Union Station; A141, Line Section, Union Station to Pershing Square and Civic Center Station; A146, Line Section 5th/Hill - 7th/Flower; A147, Civic Center Station; A157, Pershing Square Station; A165, 7th/Metro Station; A167, 7th/Metro Station; A171, Line Section 7th/Flower to Wilshire/Alvarado; A172, Demolition of Structure A1-208; A173, Demolition of Structure Alvarado Street; A187, Wilshire/Alvarado Station; A610, Trackwork Installation; A615, Protective Coverboard; A630, Traction Power Equipment; A631, Traction Power Installation; A732, Wheel Truing Machine; A736, Portable Jacks; A740, Ventilation Equipment; A745, Air Handling Equipment; A760A, Signage; A760B, Edge Lighting.
- Continue support of Breda vehicle arrival, testing and acceptance.
- Complete day time pre-revenue operations on actual planned revenue schedule.
- Complete all Facility and System Safety Certification.
- Complete LAFD Occupancy Permit Inspection.
- Segment 1 operation is scheduled for January 30, 1993.

**RAIL CONSTRUCTION CORPORATION**  
**PROJECT COST REPORT**  
**COST BY ELEMENT**

PROJECT : R80 METRO RAIL RED LINE SEGMENT 1

STATUS PERIOD: NOV 28, 1992 TO DEC 31, 1992  
 STATUS DATE : DECEMBER 31, 1992  
 UNITS : DOLLARS IN THOUSANDS

ELEMENT	DESCRIPTION	ORIGINAL BUDGET (1)	FFGA BUDGET (2)	CURRENT BUDGET		COMMITMENTS		INCURRED COST		EXPENDITURES		CURRENT FORECAST		VARIANCE (12-4)
				PERIOD (3)	TO DATE (4)	PERIOD (5)	TO DATE (6)	PERIOD (7)	TO DATE (8)	PERIOD (9)	TO DATE (10)	PERIOD (11)	TO DATE (12)	
T	CONSTRUCTION	696,158	751,872	0	751,872	1,460	786,050	10,308	760,285	4,482	740,505	(5,539)	803,797	51,825
S	PROFESSIONAL SERVICES	397,755	461,930	0	461,930	5,157	457,935	2,087	445,868	2,087	445,868	4,990	462,215	285
R	REAL ESTATE	90,894	139,820	0	139,820	0	126,237	0	126,237	0	124,996	1,912	140,000	180
F	UTILITY RELOCATIONS	10,920	12,140	0	12,140	0	11,009	2	9,021	2	9,021	0	11,009	(1,131)
D	SPECIAL PROGRAMS	948	948	0	948	0	875	0	602	0	602	0	871	(77)
C	PROJECT CONTINGENCY	53,225	83,209	0	83,209	0	0	0	0	0	0	(1,363)	32,127	(51,082)
A	PROJECT REVENUE	0	0	0	0	0	0	0	0	0	0	0	0	0
PROJECT GRAND TOTAL		1,249,900	1,450,019	0	1,450,019	6,617	1,382,106	12,397	1,342,013	6,571	1,320,892	0	1,450,019	0

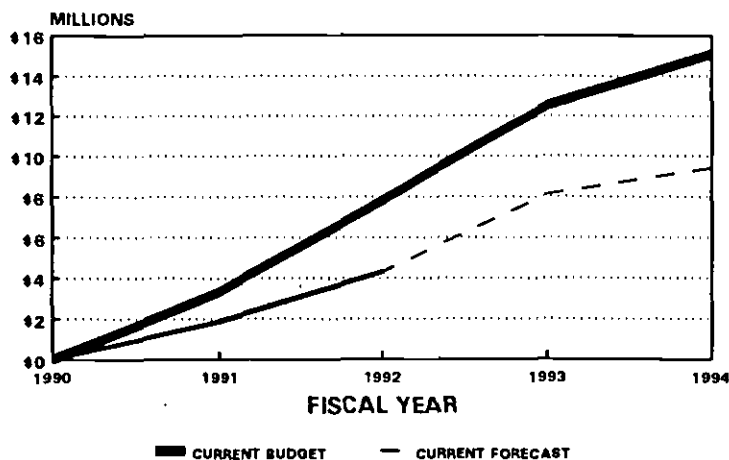
NOTE: REFER TO APPENDIX FOR REPORT DEFINITIONS

**RAIL CONSTRUCTION CORPORATION**  
**METRO RAIL PROJECT SEGMENT 1**  
**(IN THOUSAND OF DOLLARS)**

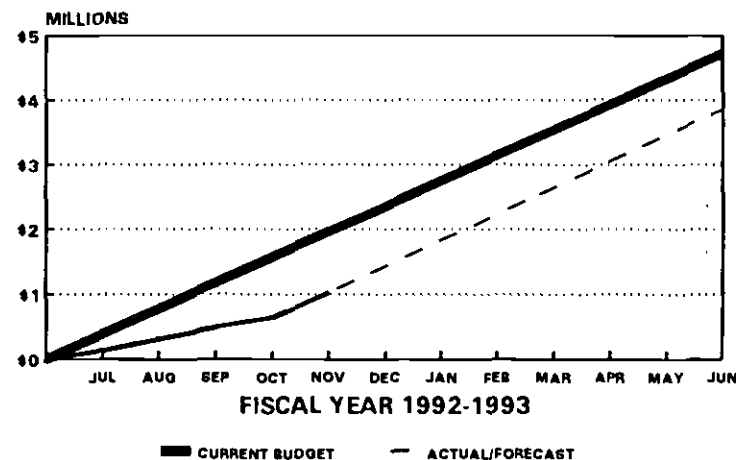
## STATUS OF FUNDS BY SOURCE

SOURCE	TOTAL FUNDS ANTICIPATED	* TOTAL FUNDS AVAILABLE	COMMITMENTS		EXPENDITURES		BILLED TO SOURCE	
			\$	%	\$	%	\$	%
FTA-SECTION 3	\$605,300	\$605,300	\$605,300	100%	\$587,029	97%	\$582,629	96%
FTA-SECTION 9	\$90,584	\$90,584	\$90,584	100%	\$86,716	96%	\$79,496	88%
STATE	\$210,268	\$210,268	\$196,689	94%	\$195,830	93%	\$210,268	100%
LACTC	\$179,448	\$179,448	\$179,448	100%	\$179,448	100%	\$177,131	99%
CITY OF LA.	\$34,000	\$34,000	\$34,400	101%	\$34,000	100%	\$32,841	97%
BENEFIT ASSESS.	\$130,300	\$130,300	\$130,300	100%	\$130,300	100%	\$130,300	100%
(1) COST OVERRUN ACCOUNT	\$200,119	\$40,902	\$112,176	56%	\$107,669	54%	\$53,834	27%
TOTAL	\$1,450,019	\$1,290,802	\$1,348,896	93%	\$1,320,992	91%	\$1,266,499	87%
NOTES:								
(1) The Cost Overrun Account includes CAPRA funds as well as LACTC and City of Los Angeles contributions to cover cost overruns								
* Fund available are computed on a cumulative basis.								

# AGENCY COSTS RED LINE SEGMENT 1



# FISCAL YEAR 1993 AGENCY COSTS RED LINE SEGMENT 1



# PROJECT AGENCY COSTS RED LINE SEGMENT 1 (\$000)

TOTAL PROJECT BUDGET	\$1,450,019
CURRENT BUDGET *	\$15,091
CURRENT FORECAST *	\$9,436

\*Does not include \$80,864 in agency costs expended by SCRTD prior to June 30, 1990.

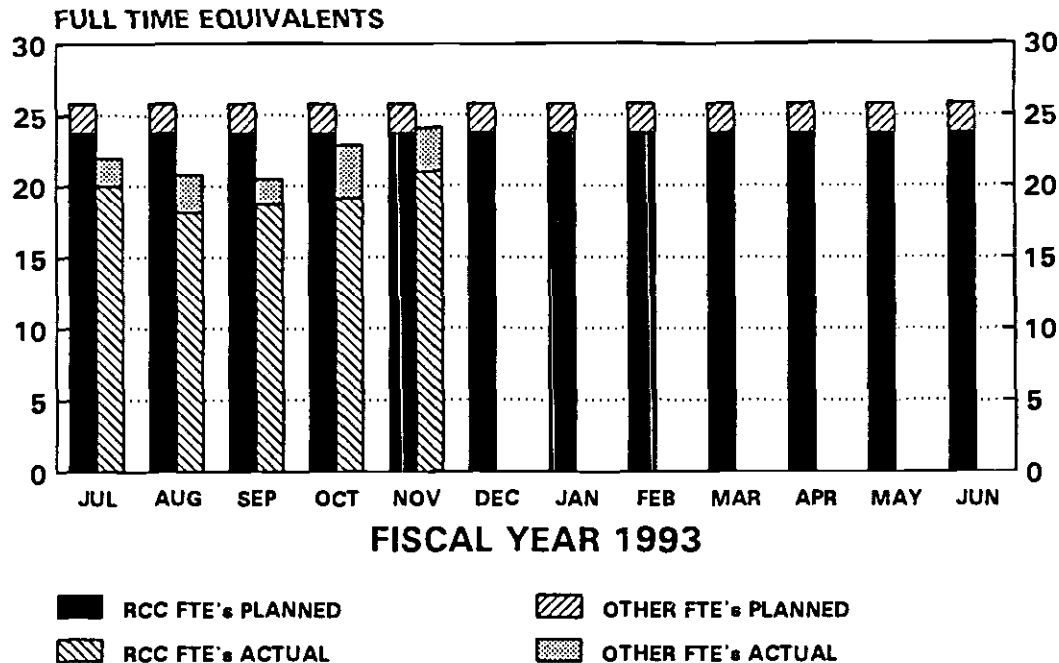
# FISCAL YEAR 1993 AGENCY COSTS RED LINE SEGMENT 1 (\$000)

CURRENT BUDGET	\$4,722
CURRENT FORECAST	\$3,866
ACTUAL TO DATE	\$1,031



## STAFFING PLAN VS. ACTUAL

### RED LINE SEGMENT 1



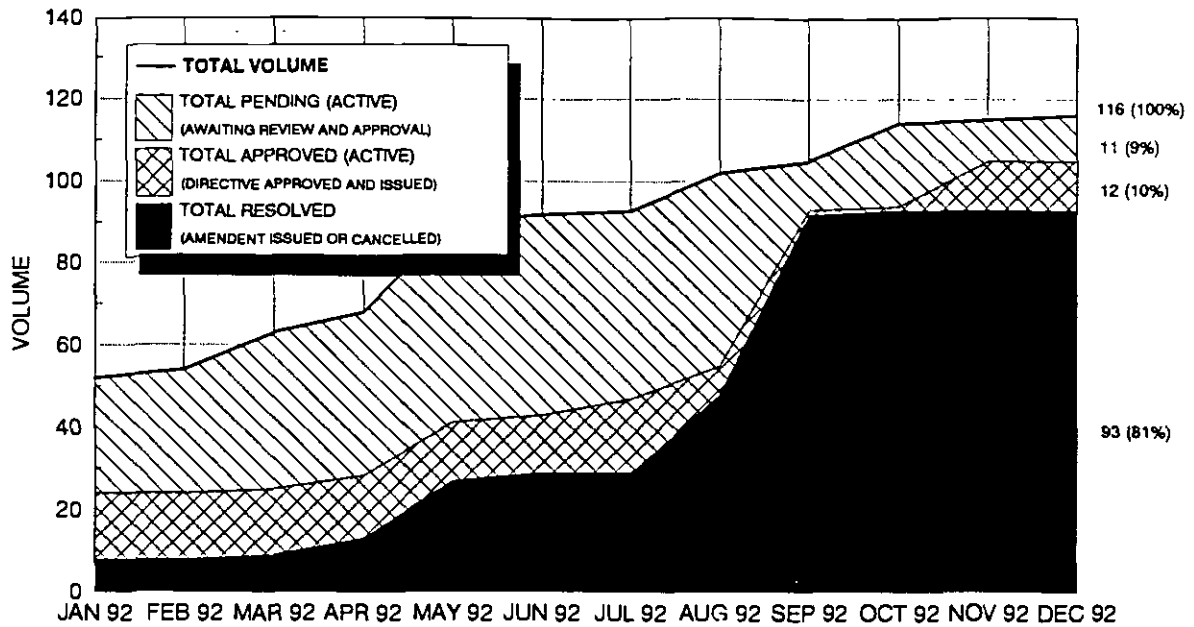
FY'93 Budget

## RED LINE (SEGMENT 1) STAFFING PLAN

### FISCAL YEAR 1993

RCC FTE's PLANNED	24
RCC FTE's ACTUAL	21
OTHER FTE's PLANNED	2
OTHER FTE's ACTUAL	3
TOTAL FTE's PLANNED	26
TOTAL FTE's ACTUAL	24

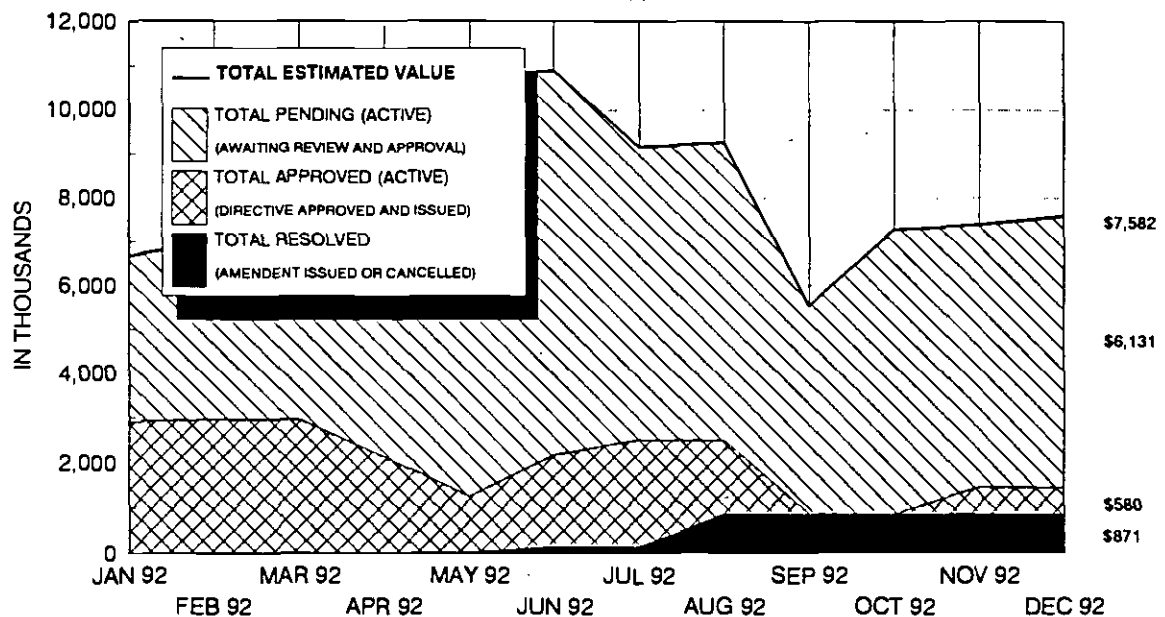
CONSULTANT CONTRACT CHANGE SUMMARY  
RED LINE SEG-1 CONSULTANT CHANGE REQUEST VOLUME



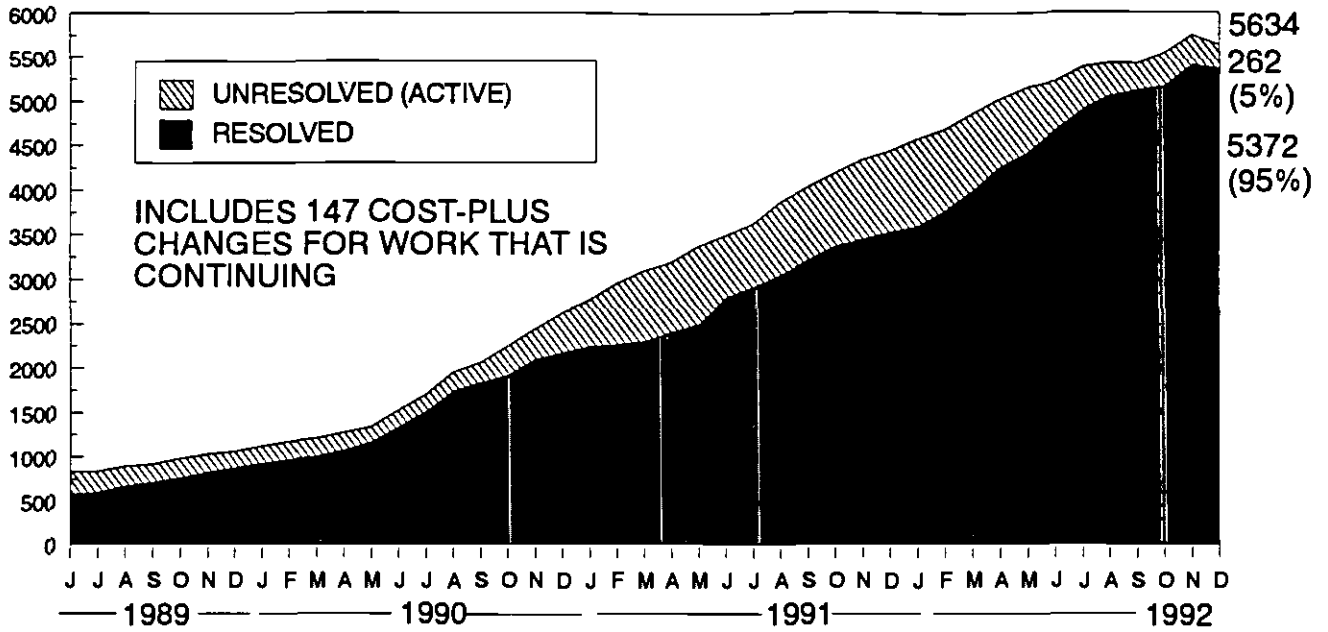
AGE OF UNRESOLVED CONSULTANT CHANGES

TIME	0-30 DAYS	30-60 DAYS	61-90 DAYS	OVER 90	TOTAL ACTIVE
VOLUME	1	1	8	13	23
PERCENT	4%	4%	35%	57%	100%

CONSULTANT CONTRACT CHANGE SUMMARY  
RED LINE SEG-1 CONSULTANT CHANGE REQUEST VALUES

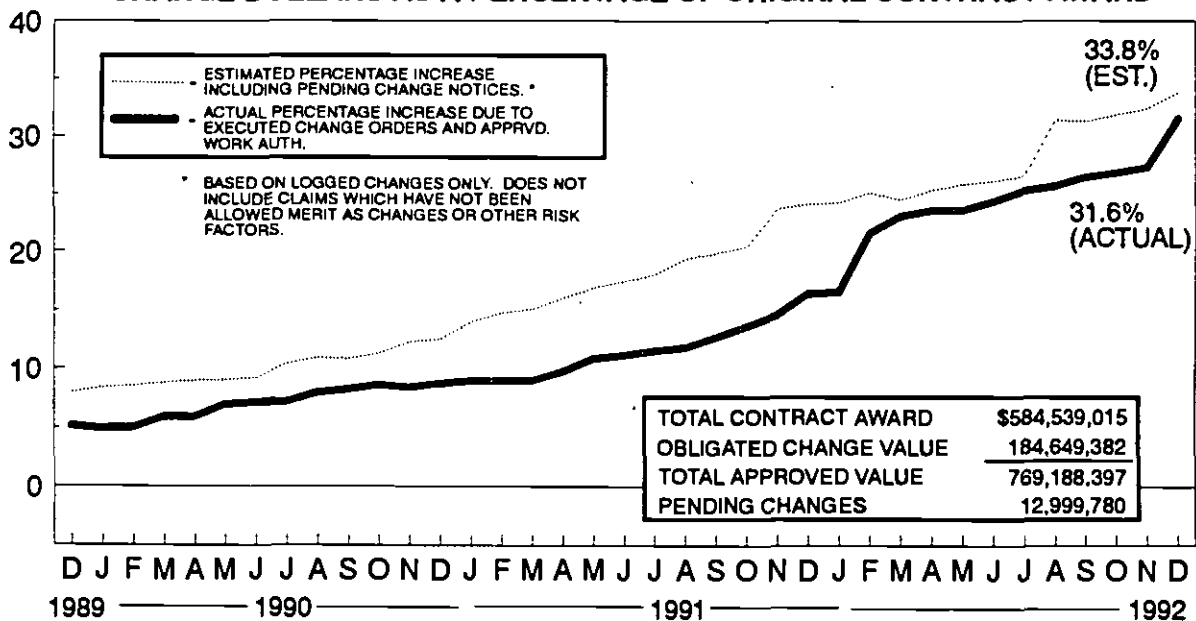


**CONSTRUCTION/PROCUREMENT CONTRACT CHANGES  
CHANGE NOTICE RESOLUTION**

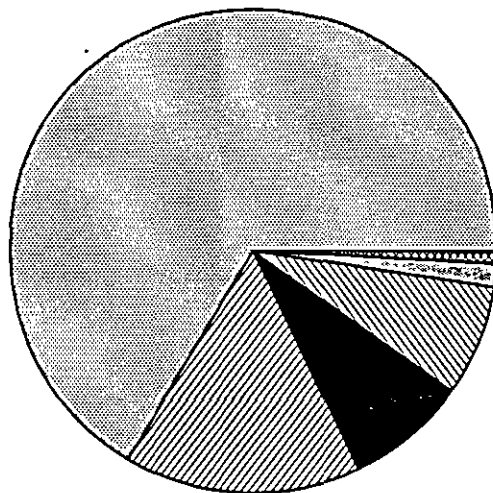


AGE OF UNRESOLVED CHANGES					
TIME	0-30 DAYS	31-60	61-90	OVER 90	TOTAL ACTIVE
VOLUME	94	24	32	112	262
PERCENT	36%	9%	12%	43%	100%

**CONSTRUCTION/PROCUREMENT CONTRACT CHANGES  
CHANGE DOLLARS AS A PERCENTAGE OF ORIGINAL CONTRACT AWARD**



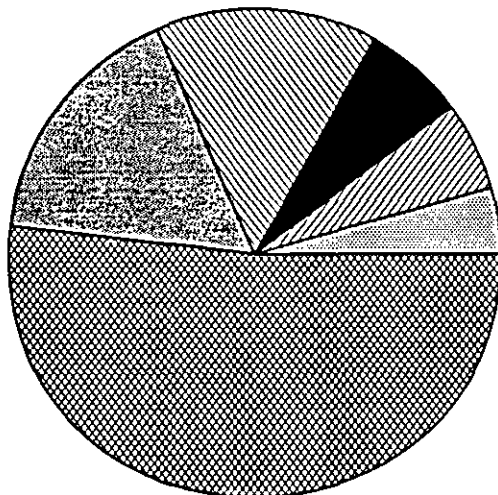
**CONSTRUCTION/PROCUREMENT  
CHANGE VOLUME AND COST BY COST LEVEL  
BASED ON EXECUTED CHANGES AS OF 12/31/92**



CHANGE VOLUME  
TOTAL VOLUME: 4517 CN'S

**ABSOLUTE VALUES**

2999	66.4%		< \$10,000
710	15.7%		< \$25,000
365	8.1%		< \$50,000
332	7.4%		< \$200,000
73	1.6%		> \$200,000
38	0.8%		> \$1,000,000

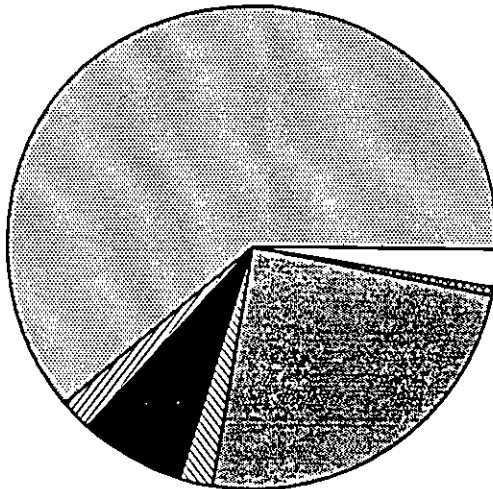


CHANGE COST  
TOTAL COST: \$181,138,523

\$7,894,172	4.4%		< \$10,000
\$10,514,167	5.8%		< \$25,000
\$12,228,790	6.7%		< \$50,000
\$26,500,949	14.6%		< \$200,000
\$30,045,830	16.6%		> \$200,000
\$93,954,614	51.9%		> \$1,000,000

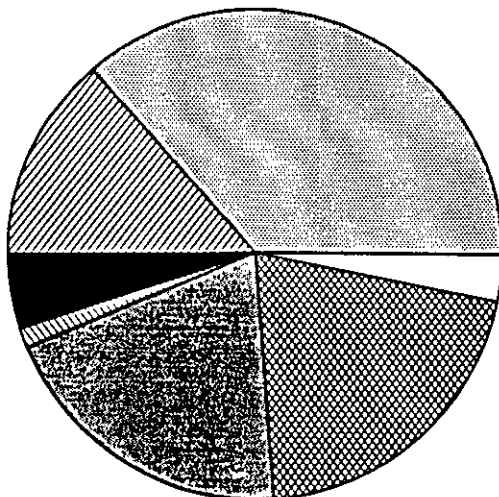
NOTE: COST LEVEL IS BASED ON CHANGE NOTICE VALUE

**CONSTRUCTION/PROCUREMENT  
CHANGE VOLUME AND COST BY CHANGE BASIS TYPE  
BASED ON EXECUTED CHANGES AS OF 12/31/92**



CHANGE BASIS VOLUME  
TOTAL VOLUME: 4517 CN'S (2519 CO'S)

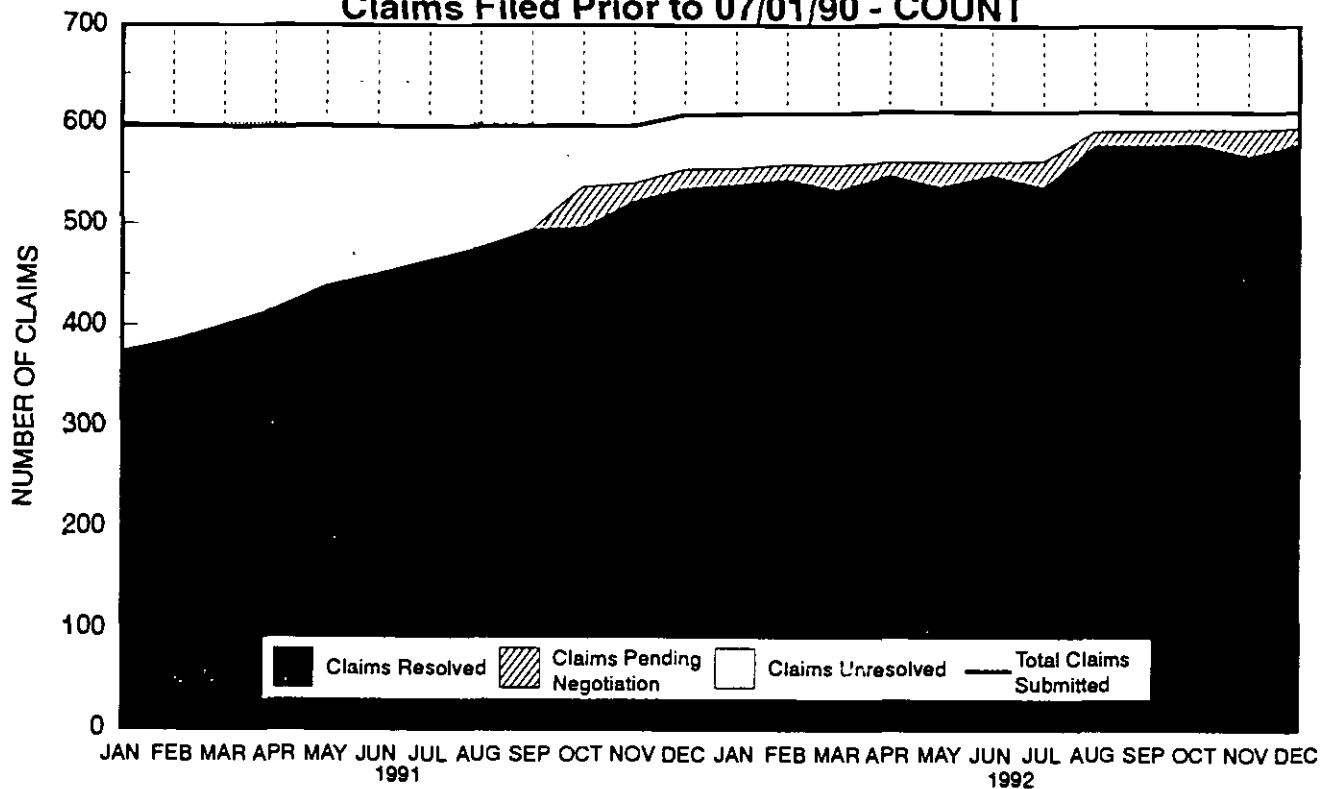
1710	37.9%		WORK SCOPE CHANGES
153	3.4%		SCHEDULE CHANGES
506	11.2%		DIFFERING CONDITIONS
154	3.4%		ADMINISTRATIVE
1772	39.2%		DESIGN CHANGES
39	0.9%		MANAGEMENT ISSUES
183	4.0%		UNASSIGNED



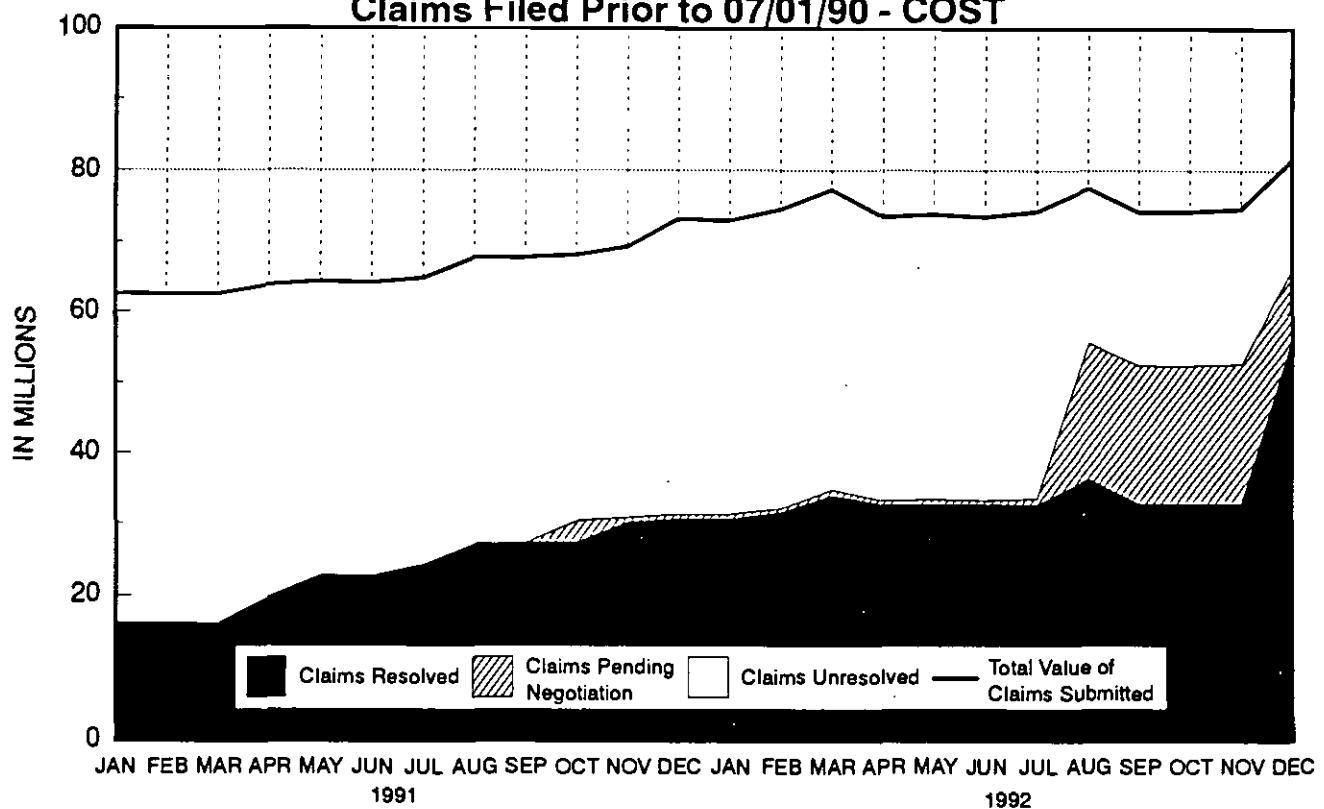
CHANGE BASIS COST  
TOTAL COST: \$181,138,523

\$66,183,177	36.5%		WORK SCOPE CHANGES
\$24,783,287	13.7%		SCHEDULE CHANGES
\$9,031,310	5.0%		DIFFERING CONDITIONS
\$2,326,130	1.3%		ADMINISTRATIVE
\$35,910,461	19.8%		DESIGN CHANGES
\$37,371,078	20.6%		MANAGEMENT ISSUES
\$5,533,080	3.1%		UNASSIGNED

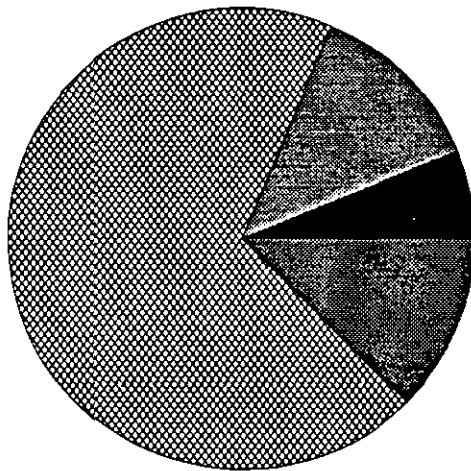
### CONSTRUCTION/PROCUREMENT CONTRACT CLAIMS Claims Filed Prior to 07/01/90 - COUNT








### CONSTRUCTION/PROCUREMENT CONTRACT CLAIMS Claims Filed Prior to 07/01/90 - COST

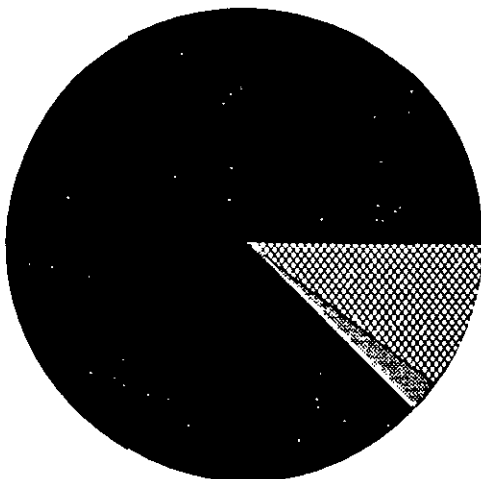


**CONSTRUCTION/PROCUREMENT CONTRACT CLAIMS**  
**Unresolved Claims Distribution Chart**  
**Claims Filed Prior to 07/01/90 as of 12/31/92**








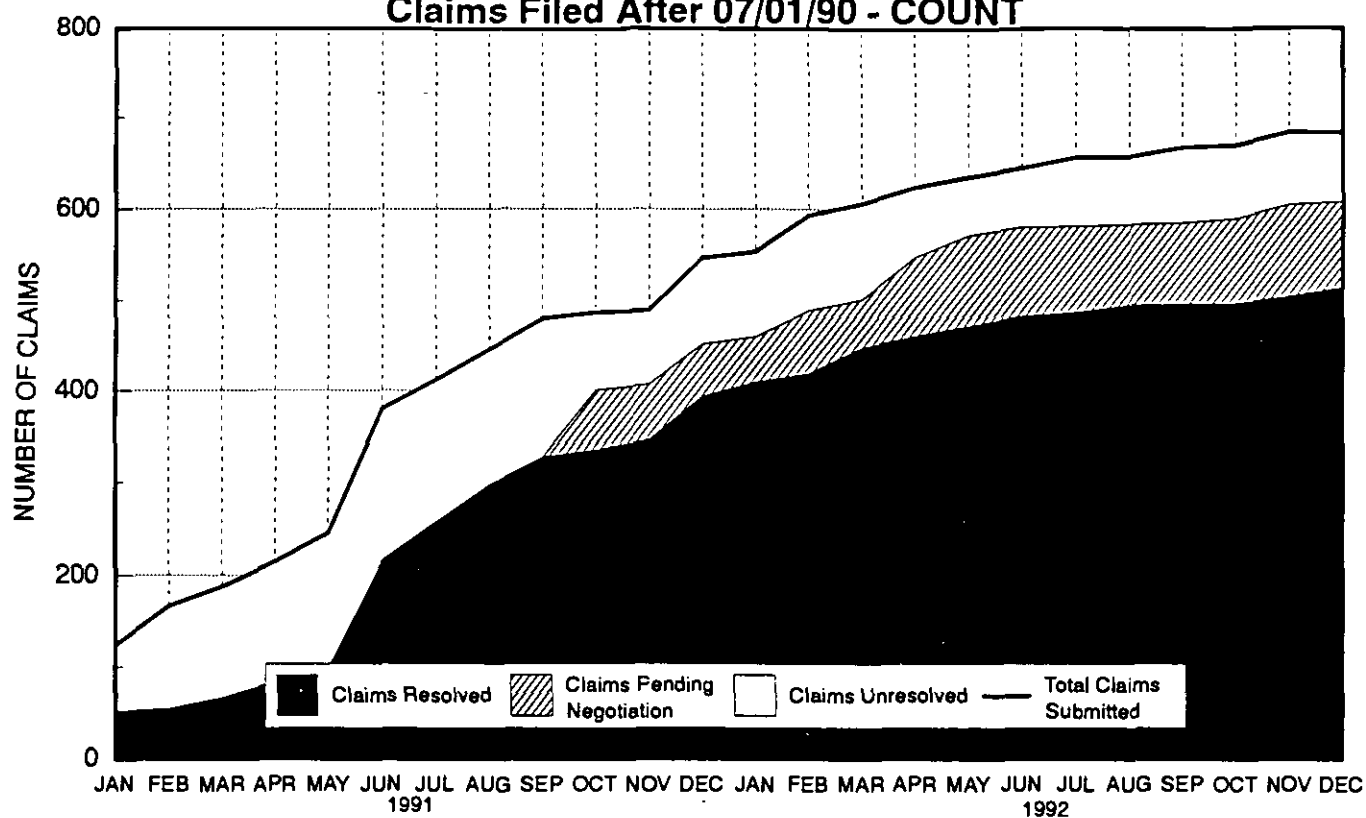
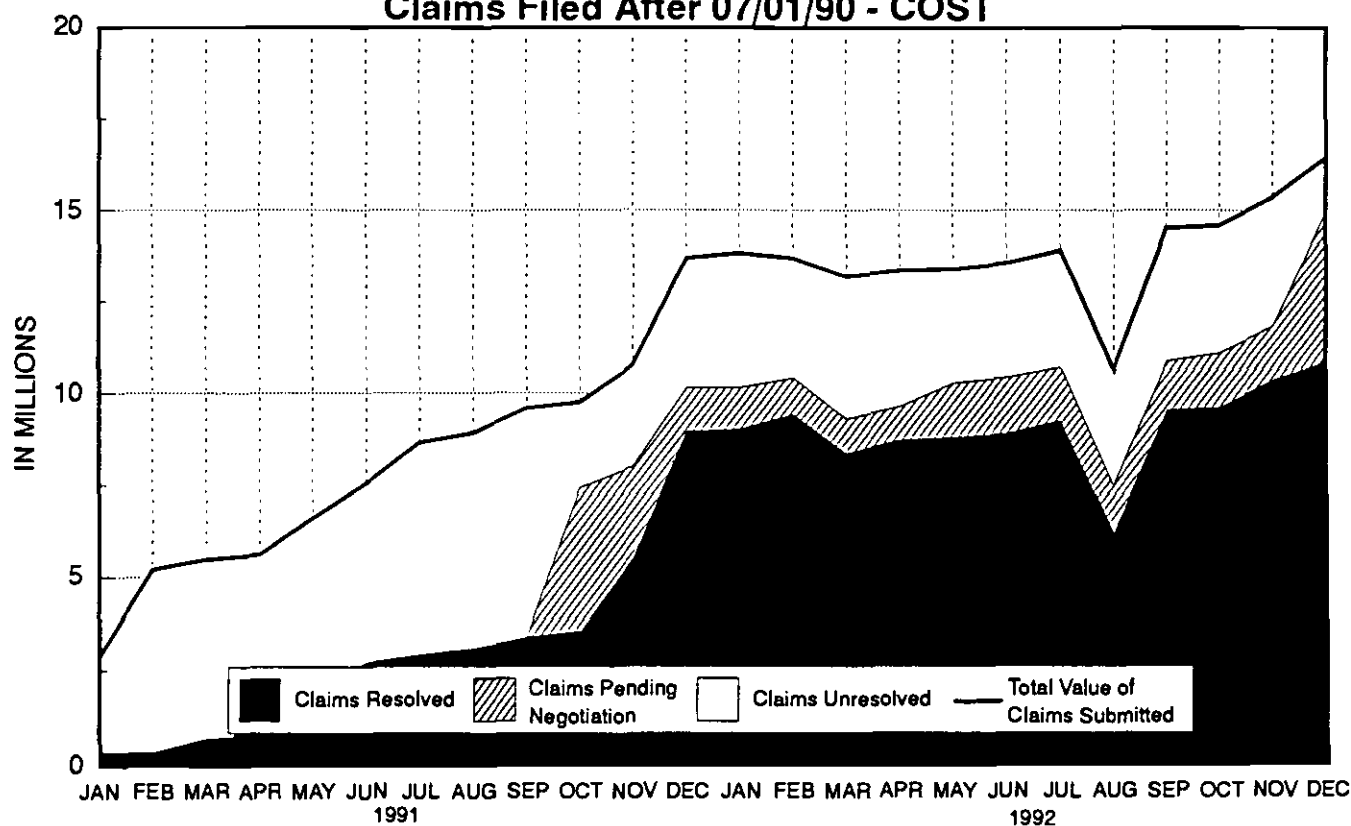
**COUNT**  
**TOTAL = 16**

1	6.3%		Litigation
0	0.0%		Closed
2	12.5%		Rejected
11	68.7%		Pending Merit
2	12.5%		In Dispute

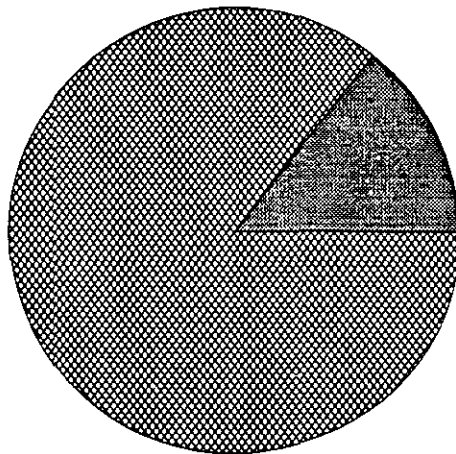


**COST**  
**TOTAL = \$15,524,842**






\$13,609,780	87.7%		Litigation
\$0	0.0%		Closed
\$334,522	2.1%		Rejected
\$1,554,298	10.0%		Pending Merit
\$26,242	0.2%		In Dispute

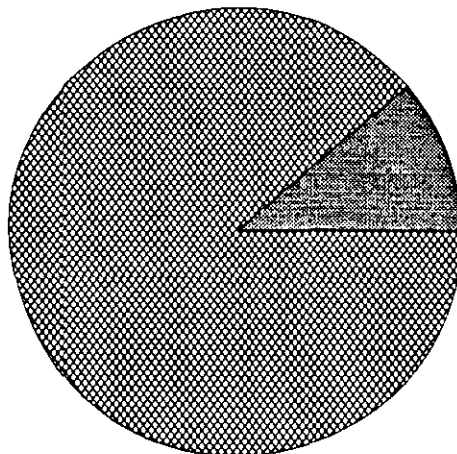
**CONSTRUCTION/PROCUREMENT CONTRACT CLAIMS****Claims Filed After 07/01/90 - COUNT****CONSTRUCTION/PROCUREMENT CONTRACT CLAIMS****Claims Filed After 07/01/90 - COST**








**CONSTRUCTION/PROCUREMENT CONTRACT CLAIMS****Unresolved Claims Distribution Chart****Claims Filed After 07/01/90 as of 12/31/92**

COUNT  
TOTAL = 76

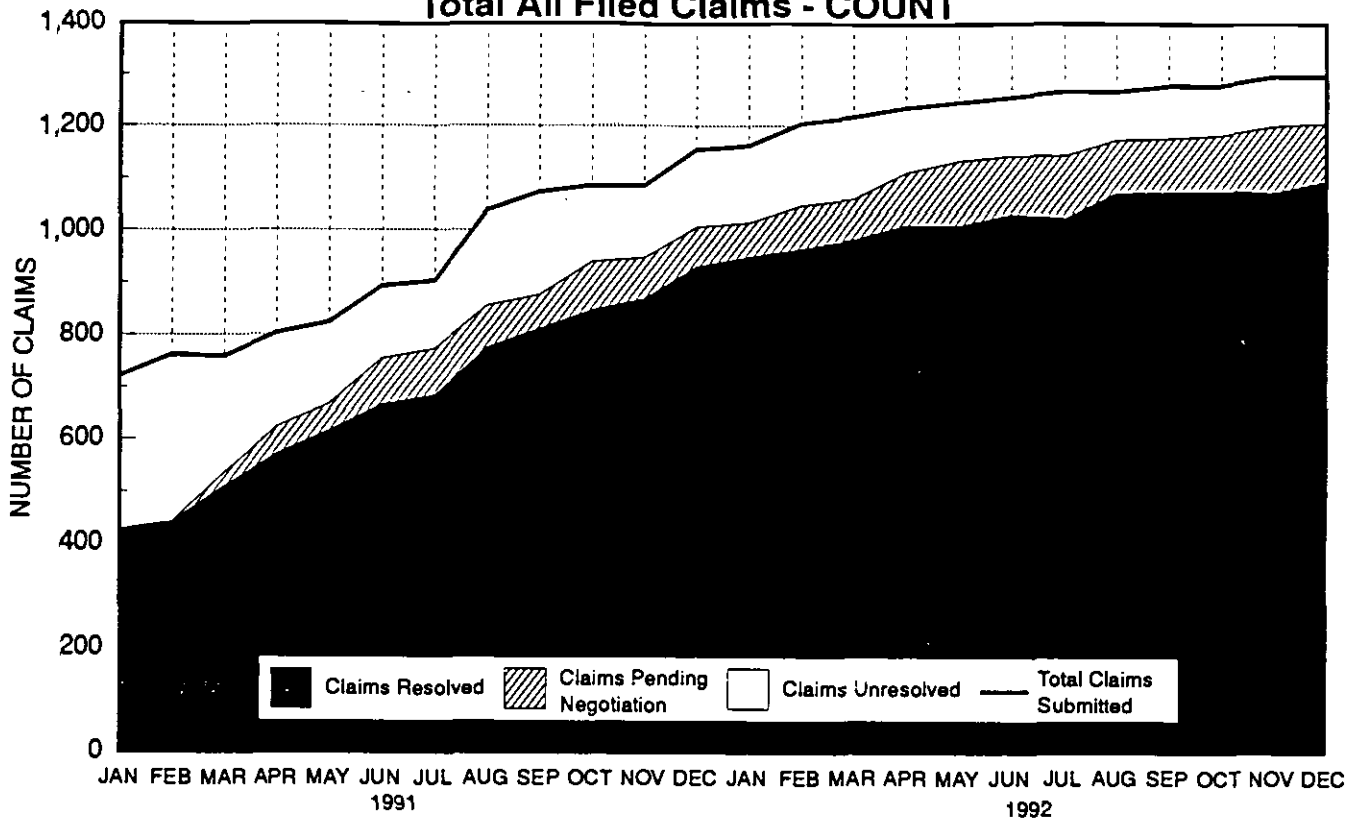
0	0.0%		Litigation
0	0.0%		Closed
11	14.5%		Rejected
65	85.5%		Pending Merit
0	0.0%		In Dispute



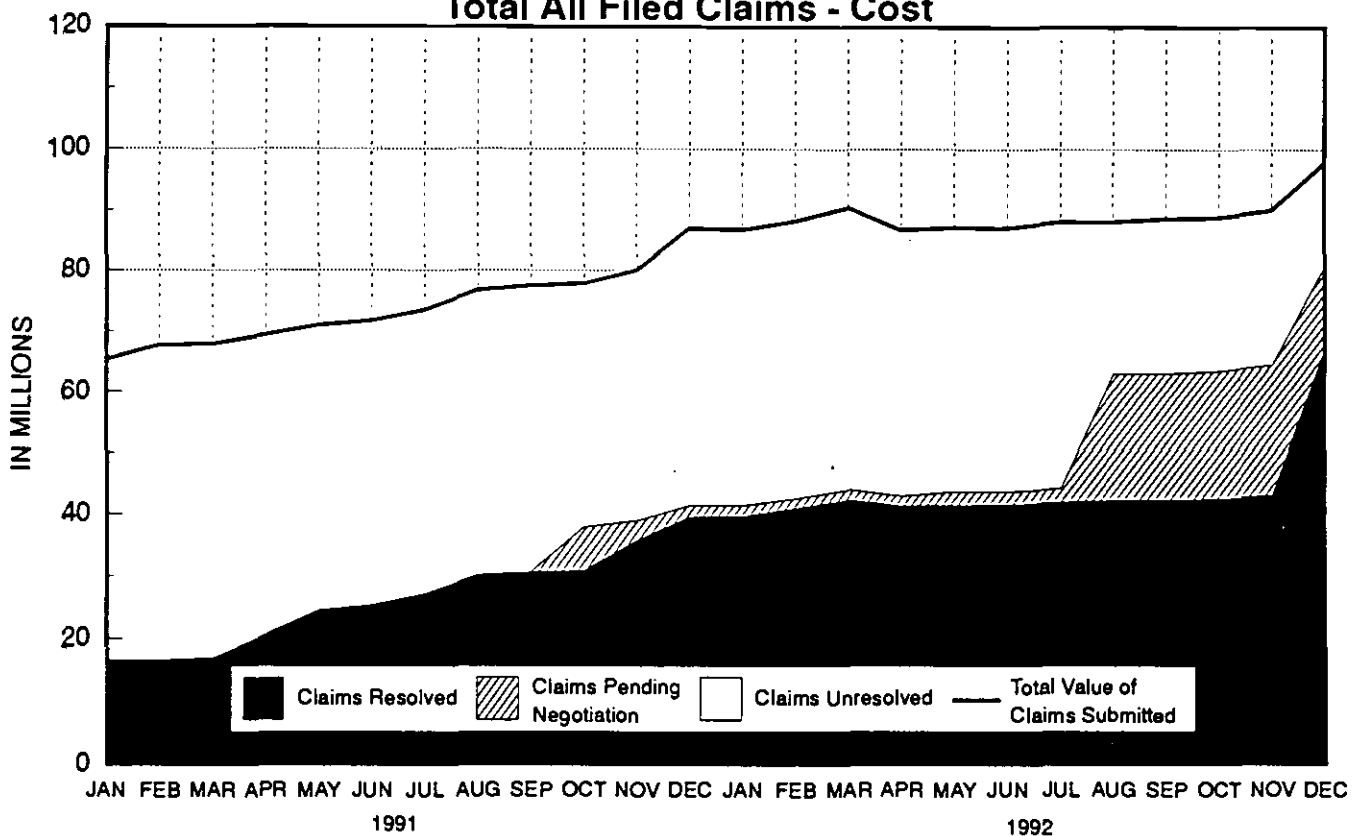
COST  
TOTAL = \$1,495,676

\$0	0.0%		Litigation
\$0	0.0%		Closed
\$169,204	11.3%		Rejected
\$1,326,472	88.7%		Pending Merit
\$0	0.0%		In Dispute

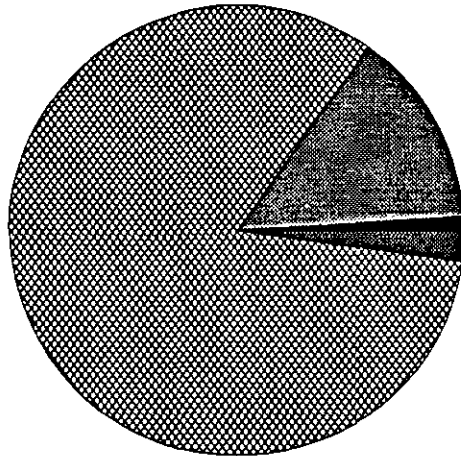
### CONSTRUCTION/PROCUREMENT CONTRACT CLAIMS Total All Filed Claims - COUNT



### CONSTRUCTION/PROCUREMENT CONTRACT CLAIMS Total All Filed Claims - Cost

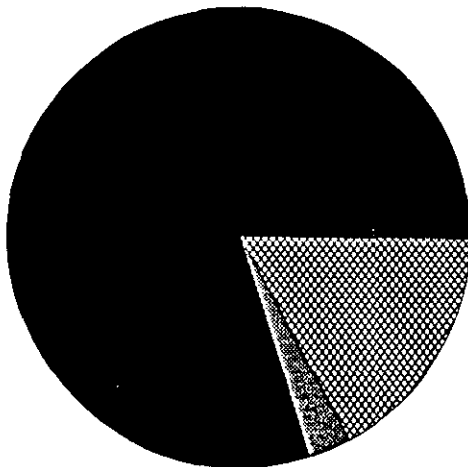


**CONSTRUCTION/PROCUREMENT CONTRACT CLAIMS**  
**Unresolved Claims Distribution Chart**  
**Total All Filed Claims as of 12/31/92**



COUNT  
TOTAL = 92

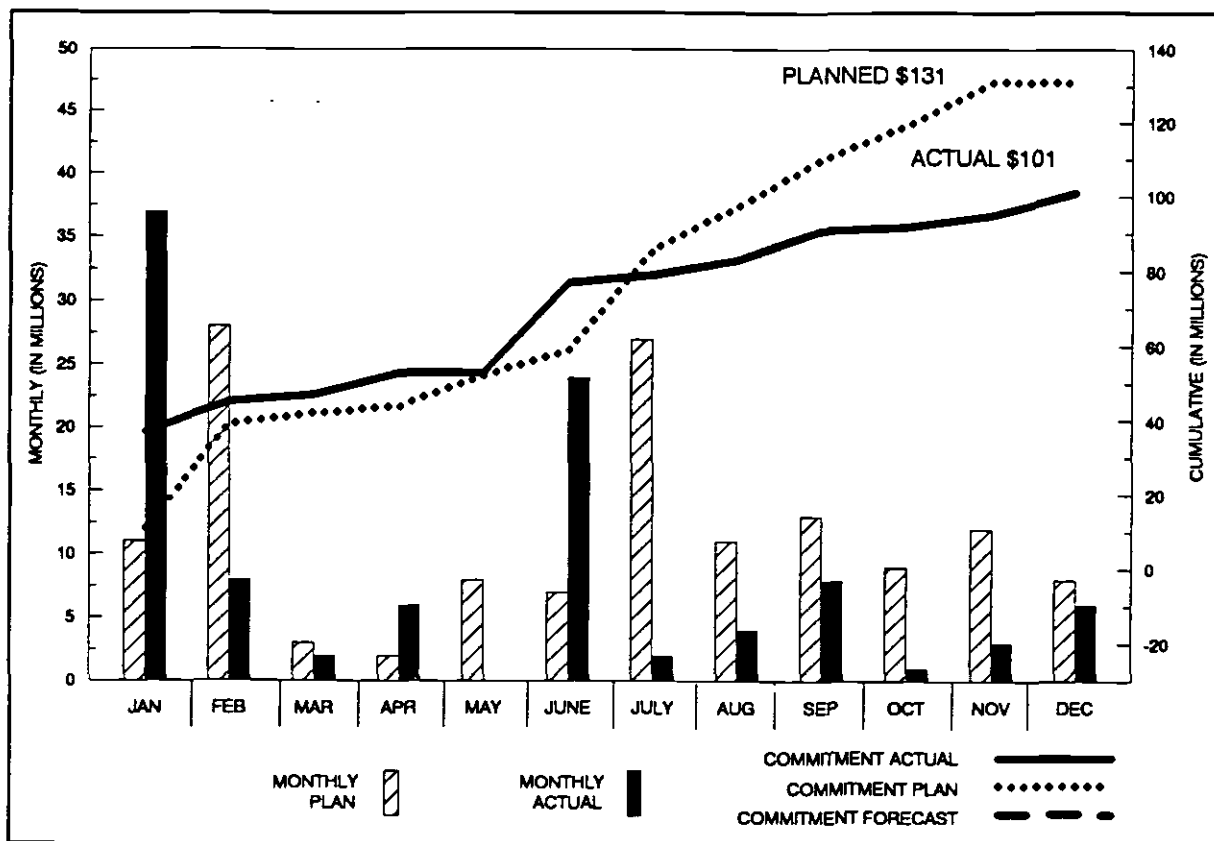
1	1.1%		Litigation
0	0.0%		Closed
13	14.1%		Rejected
76	82.6%		Pending Merit
2	2.2%		In Dispute



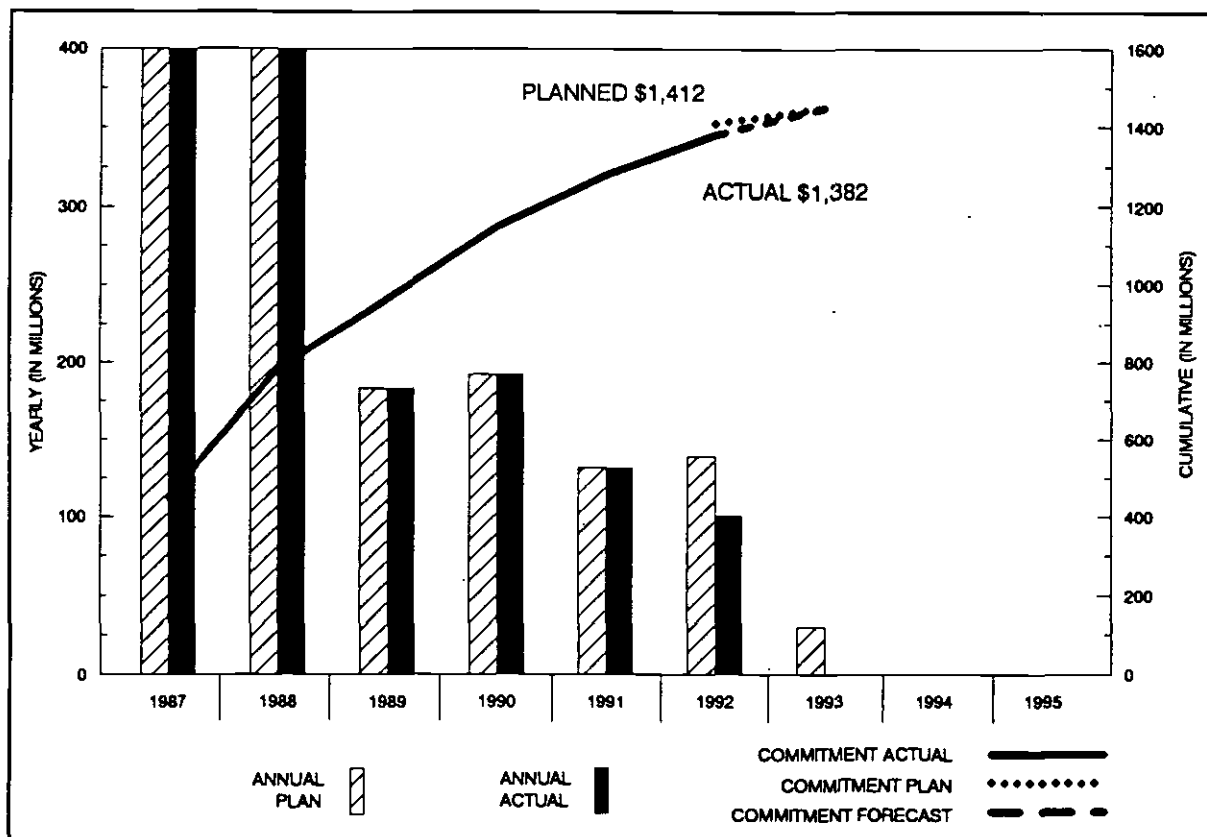
COST  
TOTAL = \$17,020,518

\$13,609,780	80.0%		Litigation
\$0	0.0%		Closed
\$503,726	3.0%		Rejected
\$2,880,770	16.9%		Pending Merit
\$26,242	0.1%		In Dispute

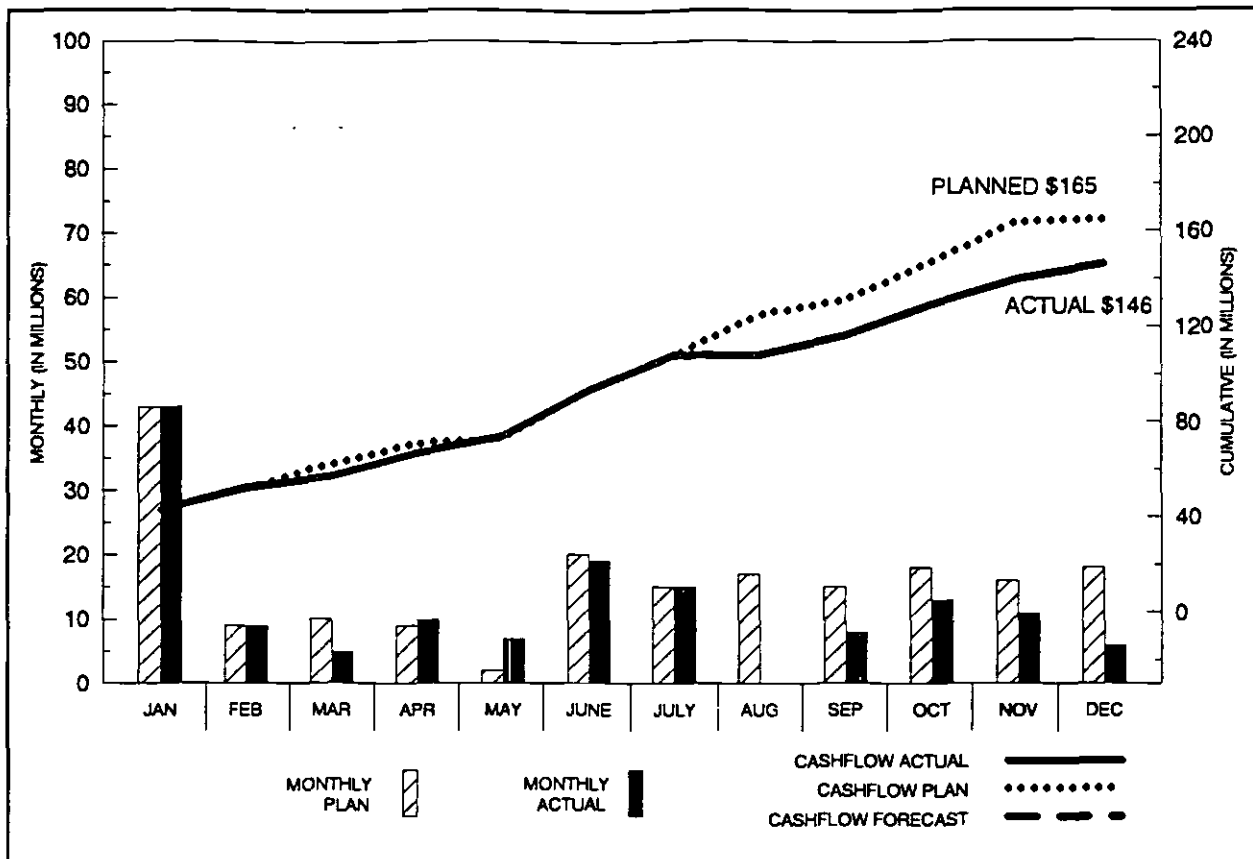
PROJECT COMMITMENTS – ANNUAL



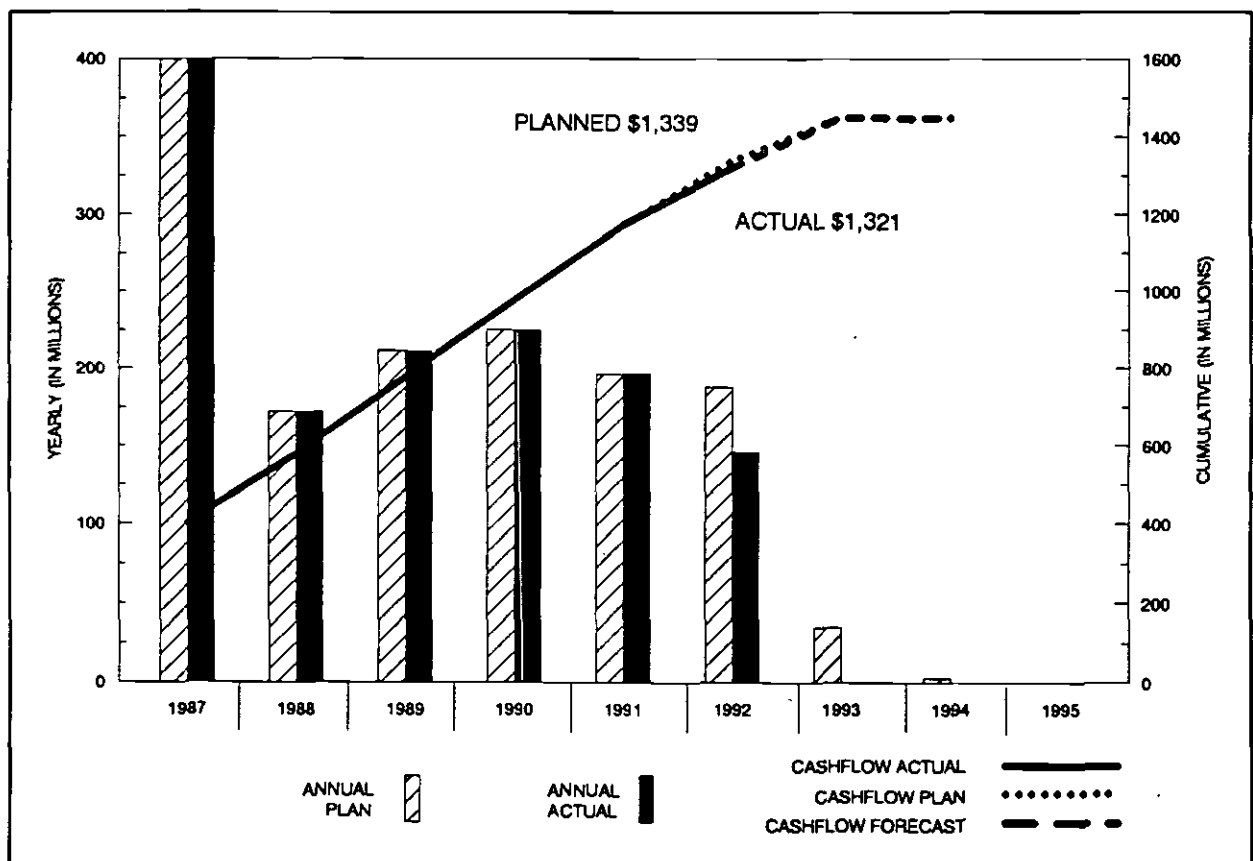
PROJECT COMMITMENTS – PROJECT



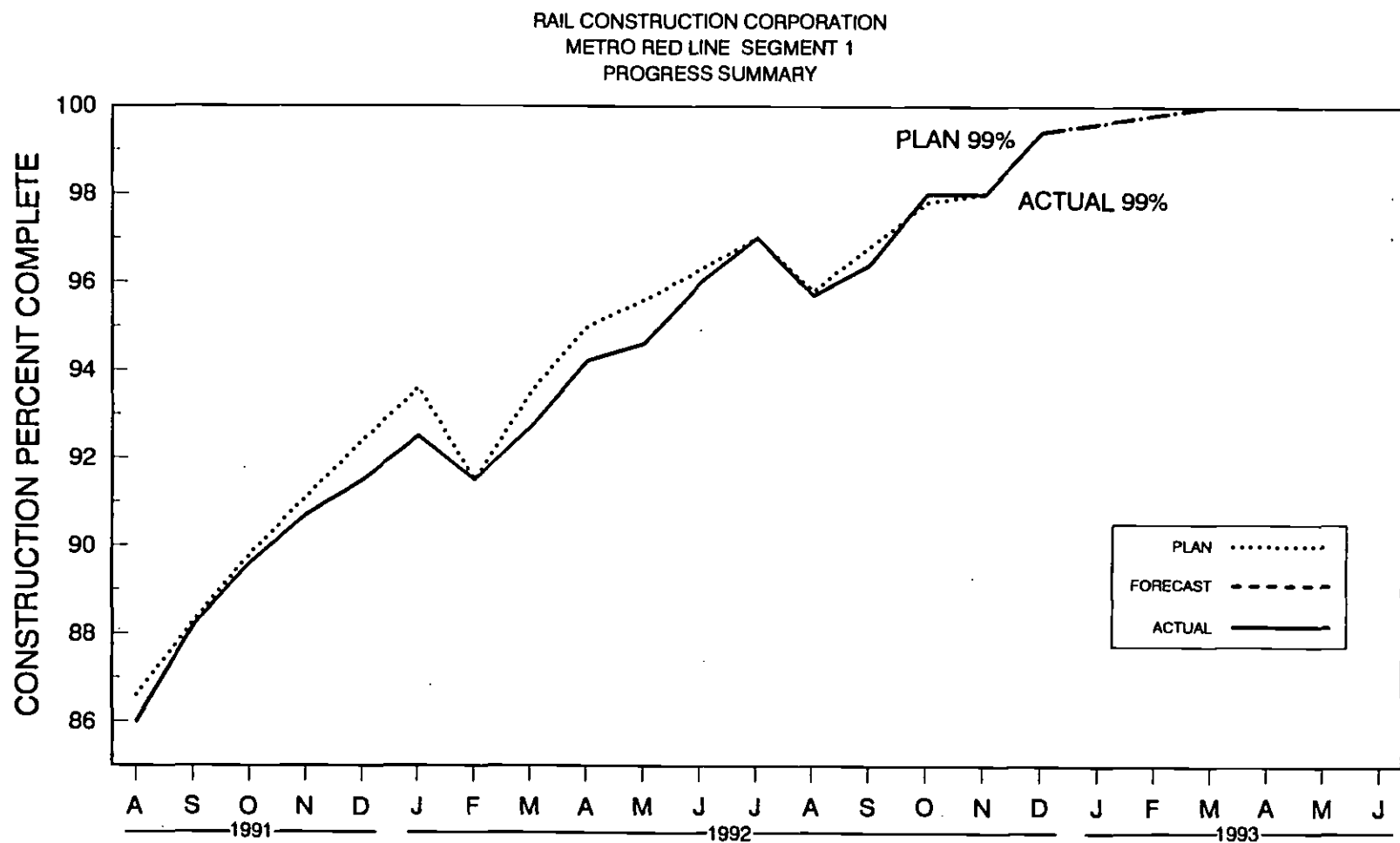
## PROJECT CASH FLOW -- ANNUAL



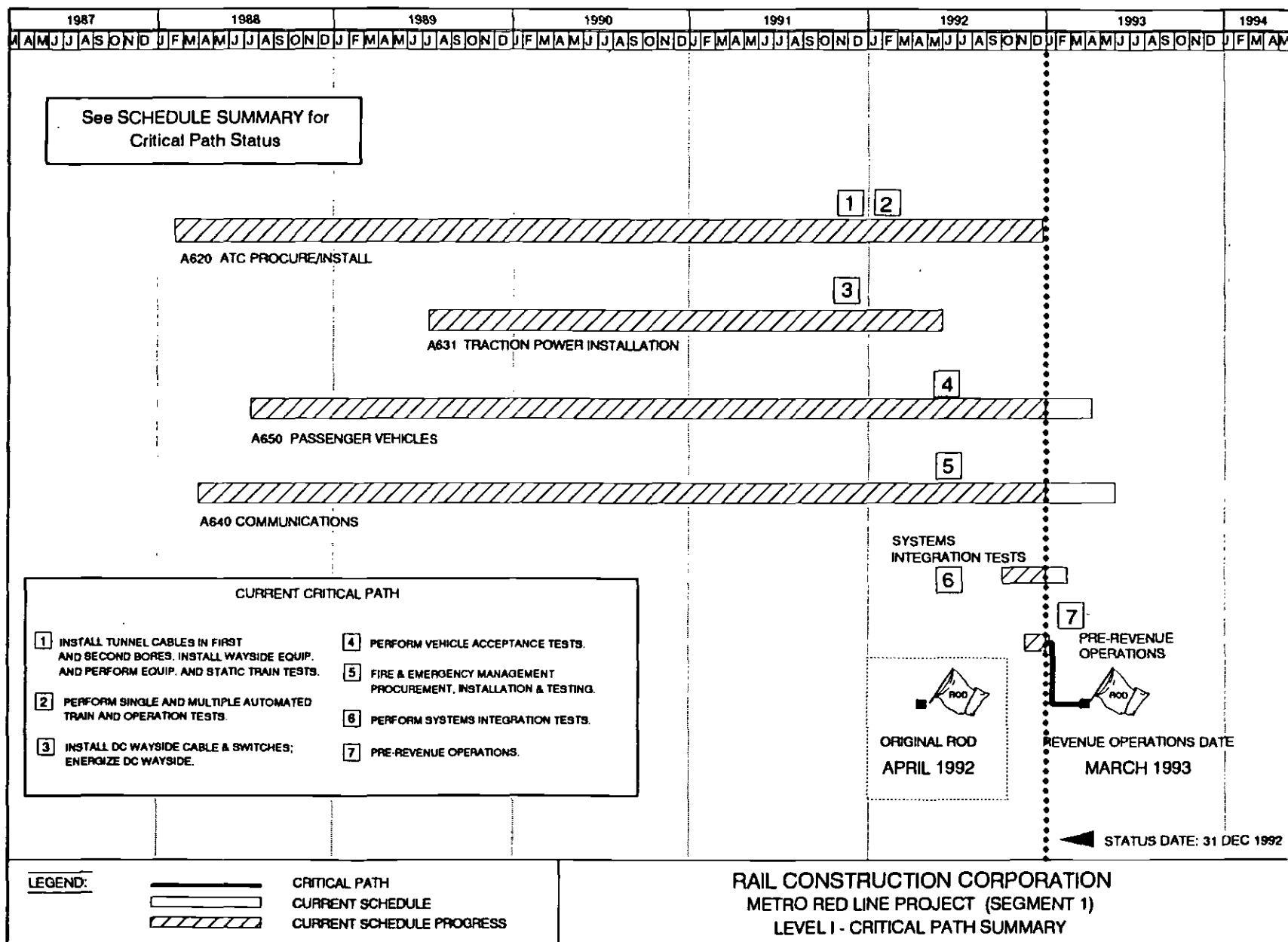
## PROJECT CASH FLOW -- PROJECT



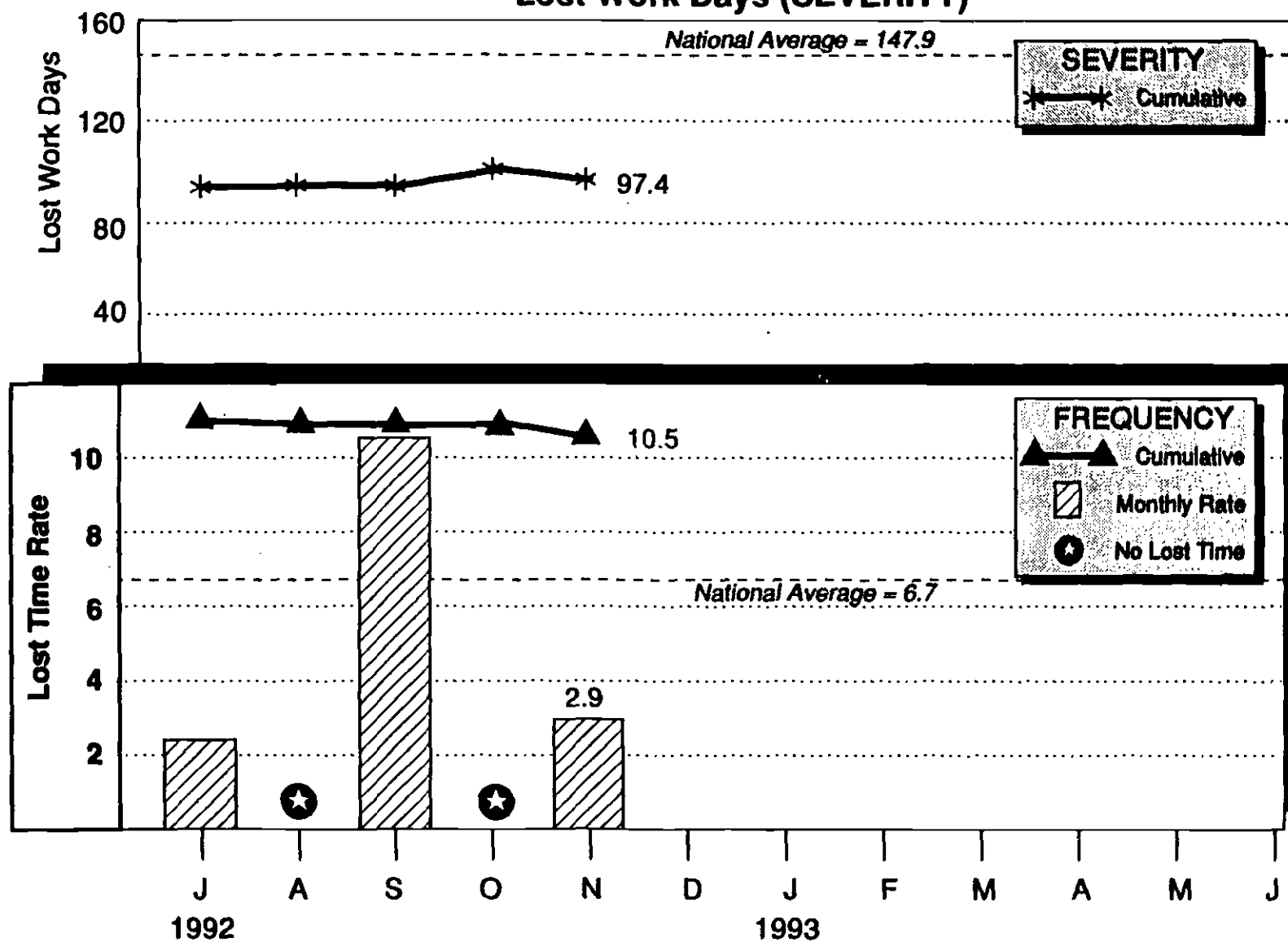
NOTE: AUGUST ACTUAL IS ZERO DUE TO A CHANGE IN THE REPORTING PROCEDURE



NOTE: BASELINE WAS ADJUSTED TO REFLECT CHANGES TO THE AUGUST 1992 COST FORECAST VALUES AND TO REFLECT AUGUST SCHEDULE ADJUSTMENTS.



# METRO RED LINE SEGMENT 1 Summary of Lost Time Accidents (FREQUENCY) and Lost Work Days (SEVERITY)





## LEGEND

O	Open. Action still required.
	Completed or Not Applicable

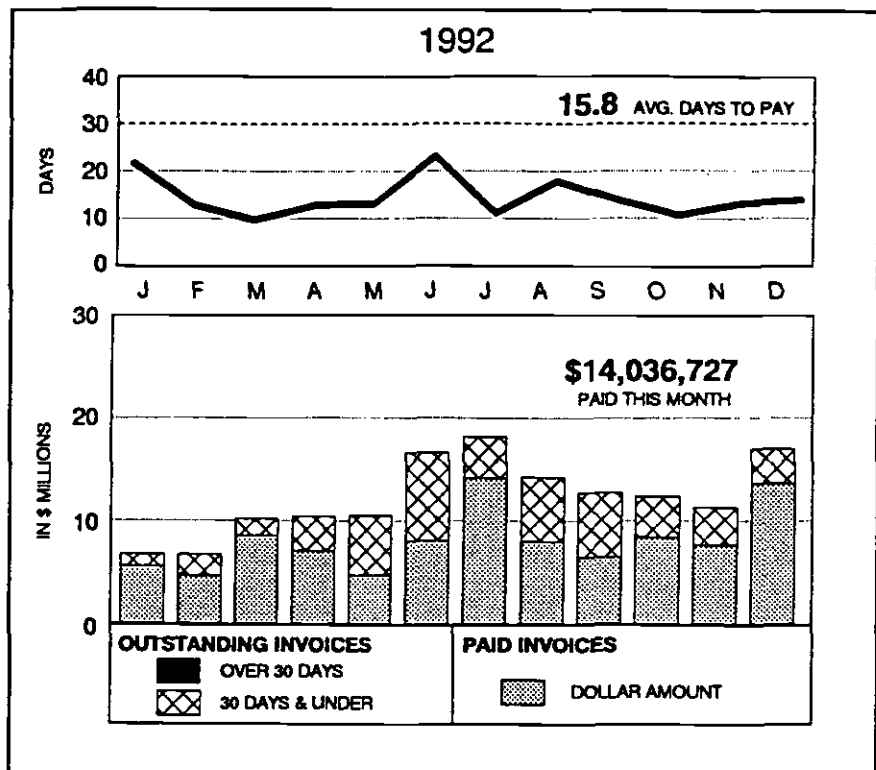
**CONTRACT CLOSE OUT STATUS**  
**METRO RED LINE SEGMENT 1**

CONTRACT NUMBER	DESCRIPTION	CLOSE OUT STATUS					COMMENTS	PROJECTED CLOSE-OUT DATE
		CLAIMS/ CHANGE ORDERS	FINAL PROG. PAYMENT	FINAL RELEASE	FINAL ACCEPT. CERTIF.	EQUIP. FINAL DELIV.		
A130	Yard Lead Transfer Zone	O	O	O	O	O	Outstanding claims to be resolved.	Feb 93
A135	Union Station Stage I	O	O	O	O	O	Outstanding claims to be resolved.	Feb 93
A136	Union Station Stage II	O	O	O	O	O	Additional work in progress for Metrolink.	Mar 93
A141	U/S - 5 & Hill Tunnels	O	O	O	O	O	Work In progress.	Feb 93
A147/A157	Pershing Square/Civic Cntr	O	O	O	O	O	Finalizing closeout package.	Mar 93
A165	7th & Flower Station Stage I	O	O	O	O	O	Final closeout pending claims litigation.	TBD
A167	7th & Flower Station Stage I	O	O	O	O	O	Finalizing contract closeout package.	Mar 93
A185	Landscaping & Pylon Install	O	O	O	O	O	Work in progress.	Apr 93
A187	Wilshire/Alvar Stat. Stage II	O	O	O	O	O	Finalizing contract closeout package.	Apr 93
A190	Misc. Constr/Ancillary Serv.	O	O	O	O	O	Work in progress.	Feb 93
A610/115	Track Installation	O	O	O	O	O	Final closeout pending claims litigation.	TBD

## INVOICE PROCESSING

- The average time taken to pay invoices for Construction and Procurement contracts (including Insurance) was 15.8 days.
- 15 invoices were paid for a total value of \$14,036,727.
- There were 13 outstanding Construction/ or Procurement invoices under 30 days old for \$ 3,479,636.
- There was 1 outstanding Construction or Procurement invoices over 30 days old for \$ 500.

## Construction/Procurement Invoice Status



Note: The average days to pay is the time from when the Resident Engineer approves a progress payment (invoice) to when Accounting issues a check for this invoice.

## OUTSTANDING INVOICES

Month	Construction/Procurement Invoices				Other Invoices			
	30 Days and Under		Over 30 Days		30 Days and Under		Over 30 Days	
	Number of Invoices	Dollar Value	Number of Invoices	Dollar Value	Number of Invoices	Dollar Value	Number of Invoices	Dollar Value
JUL 1992	10	4,044,540	1	77,413	57	6,219,425	4	807,593
AUG 1992	27	6,415,822	1	6,609	14	2,752,384	13	1,251,852
SEP 1992	16	6,465,086	0	0	20	3,409,027	4	950,556
OCT 1992	18	4,135,280	0	0	23	2,221,084	6	817,861
NOV 1992	13	3,742,157	0	0	14	1,895,560	3	801,000
DEC 1992	13	3,479,636	1	500	36	3,319,136	2	794,700

## EXECUTIVE SUMMARY

## COST STATUS

in \$ million

- Current Budget \$1,446.4
- Current Forecast \$1,503.7

The forecast exceeds the budget by \$57,285,000 because of the estimated cost to incorporate The Americans with Disabilities Act of 1990 items for all eight stations, and to include enhanced entrances at four of the five Vermont/Hollywood Corridor stations.

- The forecast increased a net of \$1,503,000 this month primarily due to revision/updates to various estimates, the addition of three new hazardous waste contracts, revisions to the OCIP and Real Estate forecasts, changes to the awarded contracts, and schedule revision impacts to Construction/Procurement contracts.

## SCHEDULE STATUS

- Current Revenue Operation Date

Wilshire Corridor	July	1996
Vermont/Hollywood Corridor	September	1998

- Design Progress
 

- Plan	81%
- Actual	79%

Planned progress shows a decrease of 7% and the actual progress decreased 6% from last month in order to reflect incorporation of Station Entrance Enhancements into the overall design scope.

- Construction Progress
 

- Plan	20%
- Actual	16%

The variance between planned and actual is due to later Notice-to-Proceed Dates for Contract B201, Wilshire/Alvarado to Wilshire/Vermont Line, Contract B211, Wilshire/Vermont Station, Stage I, and Contract B251, Vermont/Hollywood Tunnel. Progress at Contract B251 is over a month behind schedule.

**REAL ESTATE**

	NUMBER OF PARCELS	NUMBER OF PARCELS AVAILABLE	PARCELS NOT AVAILABLE (ON SCHEDULE)	PARCELS NOT AVAILABLE (BEHIND SCHEDULE)	
				NUMBER	AVG. DAYS BEHIND
THIS MONTH	83	51	25	7	71
LAST MONTH	77	51	19	7	63

- There are now 83 parcels required for the Segment 2 Project. Six additional parcels have been added at Contract B252 for temporary Right-of-Entry. The acquisition breakdown is as follows: 30 full takes, 44 subsurface easements, and three temporary construction easements.
- To date, there have been 51 parcels acquired. Thirty-seven of these parcels were acquired through condemnation, and the remaining were negotiated acquisitions.

**PUBLIC AFFAIRS**

- A Wilshire Corridor construction progress summary for December was distributed to Wilshire community groups and property managers. Staff met with representatives of Los Angeles City College and the medical facilities at Sunset to determine their operational needs during Metro construction. Staff continued incorporating public comments and revisions into the Hollywood Construction Impact Program (HCIP). The final document is due by the end of January, 1993. A series of meetings with business and community groups was held to discuss improvements to the HCIP, gain support for the plan, and explain the "enhanced cut and cover" construction process for Hollywood stations.

**AREAS OF CONCERN****NEW****Contract B251, Vermont/Hollywood Tunnels**

**Concern:** The B251 Contract is behind schedule. Despite the contractor's efforts during December, 1992, an additional six days were lost. The impact to follow-on station contracts is of concern.

Action: The contractor, along with Parsons-Dillingham, EMC, and RCC, in a partnering group, is evaluating options available in order to regain lost time.

Status: A list of possible mitigating actions for the partnering group will be provided for consideration by January 21, 1993.

### ONGOING

#### Delay in Real Estate Acquisitions

Concern: There are seven parcels which may not be available by their scheduled need dates.

Of the seven parcels showing negative float, five parcels were late certifications, one was delayed in the appraisal process, and one was delayed as the result of needing documents executed by out-of-state sellers.

Action: Maintain schedule to avoid negative float.

Status: There remains a high probability that almost all parcels will be acquired by the need dates.

### RESOLVED

#### Noise Mitigation

Concern: The noise level at Contract B221 is a source of citizen complaint. Without implementation of noise mitigation measures, construction work could be impacted resulting in increased costs and schedule delays. Although the contractor is able to maintain daytime noise emissions below the contractually required level, a re-establishment of the ambient nighttime noise level has affected the contractor's ability to perform nighttime construction operations.

Status: The contractor has committed to meeting DbA noise requirements and does not anticipate any difficulties in the future. Monitoring of noise levels is ongoing.

**FTA PROJECT MANAGEMENT OVERSIGHT CONSULTANT  
ITEMS FOR RCC ACTION**

The following items reflect action requirements identified in the November Monthly Project Report submitted to FTA by their Project Management Oversight Consultant, Hill International.

ONGOING    NONE

NEW        NONE

RESOLVED    NONE

## KEY ACTIVITIES - DECEMBER

- Completed placement of AL tunnel invert concrete, 1033 LF of AR tunnel invert concrete placed to date; began HDPE and reinforcement installation; continued placement of lake perimeter foundations/retaining walls and structural backfill in the lake bottom, at Contract B201, Wilshire/Alvarado to Wilshire/Vermont Line.
- Concluded installation of A through D Levels wales/struts. Levels E, F, and G wales/struts are 89% complete. The entire mud mat is placed and HDPE is installed on 40% of slab area at Contract B211, Wilshire/Vermont Station, Stage I.
- Completed tunneling of the BL tunnel into the B231 station on December 14, 1992 and subsequent removal of the Tunnel Boring Machine. Continued station concrete placement and began false work for the first mezzanine slab at Contract B221, Wilshire/Normandie Station and Line.
- Continued concreting of the mezzanine, and wall placements at the platform and mezzanine level at Contract B231, Wilshire/Western Station and Crossover.
- Concluded installation of access shaft and tangent piles; began excavation of access shaft and conveyor decline; and started demolition of car wash and retaining wall at Contract B251, Vermont/Hollywood Tunnels.
- Issued In-Progress Estimate for Contract B646, Fire and Emergency Management Equipment.
- Issued Prefinal Estimate for Contract B795, Uninterruptible Power Supplies; and second Revised Prefinal Estimate for Contract B252, Vermont/Santa Monica Station and Crossover.
- Issued Prefinal Design Submittal for Contract B631, Traction Power Installation.

**KEY ACTIVITIES - PLANNED FOR JANUARY**

- Continue pocket track concrete activities, perimeter walkway concrete, backfill in the lake area, installation of drainage systems, crosspassage concrete and tunnel invert and arch concrete placement at Contract B201, Wilshire/Alvarado to Wilshire/Vermont Line.
- Begin placement of base slab concrete at Contract B211, Wilshire/Vermont Station.
- Continue HDPE installation, station concrete work, and vertical crosspassage concrete work at Contract B221, Wilshire/Normandie Station and Wilshire/Vermont to the Wilshire/Western Line.
- Commence excavation and support of south appendage structures, starting with emergency exits, and continue station concreting at Contract B231, Wilshire/Western Station.
- Continue excavation of the conveyor decline, access shafts and tieback installation; and complete temporary power source at Contract B251, Vermont/Hollywood Tunnel.
- Issue In-Progress Estimate for Contract B641, Radio.
- Issue Final Design Submittal for Contract B614, Specialty Rail Procurement.
- Issue In-Progress Design Submittals for Contract B644, Design and Procure Cable Transmission, Contract B648A, Communications Installation Wilshire Corridor, and Contract B761, Illuminated Signs and Edgelights.
- Issue Prefinal Design Submittal for Contract B215, Wilshire/Vermont Station, Stage II, and Contract B647, Gas Monitoring; and Camera Ready for Contract B795, Uninterruptible Power Supplies.



RAIL CONSTRUCTION CORPORATION  
PROJECT COST REPORT  
COST BY ELEMENT

Project: METRO RED LINE SEGMENT 2

Period: 27-Nov-92 to 31-Dec-92  
Run Date: 04-Feb-93  
Units: Dollars in Thousands

ELEMENT / DESCRIPTION	ORIGINAL BUDGET	CURRENT PERIOD	BUDGET TO DATE	COMMITMENTS		INCURRED COSTS		EXPENDITURES *		CURRENT PERIOD	FORECAST TO DATE	FORECAST VARIANCE	NEW REQUIREMENTS			
				PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE				FEDERALLY MANDATED	STATE MANDATED	LOCALLY MANDATED	CURRENT PROJECT FORECAST
T Construction	893,000	0	910,008	(8,318)	464,988	5,138	178,739	7,928	157,777	24,858	998,304	88,298	(4,202)		(44,857)	949,245
S Professional Services	289,150	0	314,844	(6)	288,330	4,815	121,647	7,828	116,161	5,078	359,844	45,000	(873)		(7,353)	351,818
R Real Estate	79,827	0	78,567	2,724	61,035	2,883	59,127	2,883	59,127	(2,371)	87,929	11,382				87,929
F Utility/Agency Force Account	38,688	0	18,773	0	9,202	1,492	4,188	1,492	4,188	(108)	28,990	8,217				28,990
D Special Programs	2,044	0	2,044	0	433	0	214	0	214	98	7,821	5,777				7,821
C Contingency	145,743	0	124,198	0	0	0	0	0	0	1,503	23,129	(101,069)				23,129
A Project Revenue	0	0	0	0	0	(2)	(179)	0	(179)	0	(300)	(300)				(300)
Project Total	1,448,432	0	1,448,432	(3,599)	813,988	14,304	381,734	18,811	337,288	29,056	1,503,717	57,285	(5,075)	0	(52,210)	1,446,432

NOTE: REFER TO APPENDIX FOR REPORT DEFINITIONS

\* EXPENDITURES ARE FOR THE PERIOD OF 31-OCT-92 TO 27-NOV-92.

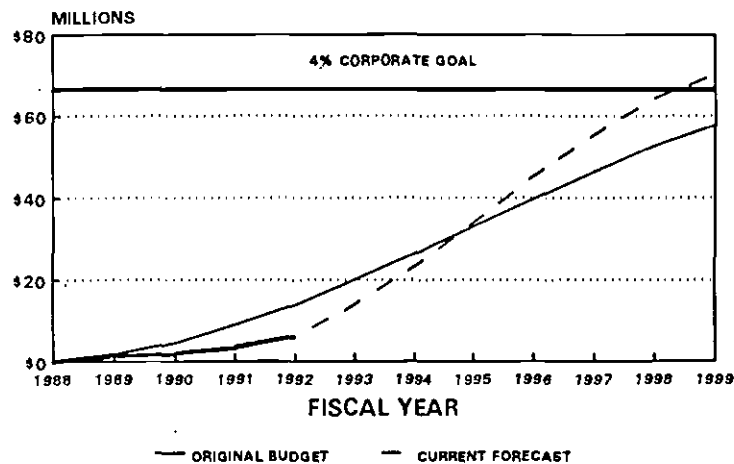
# STATUS OF FUNDS BY SOURCE

SOURCE	TOTAL FUNDS ANTICIPATED	TOTAL FUNDS AVAILABLE	COMMITMENTS		EXPENDITURES *		BILLED TO SOURCE	
			\$	%	\$	%	\$	%
FTA-SECTION 3	\$667,000	\$547,918	\$355,430	53%	\$127,158	19%	\$120,037	18%
FTA - SECTION 3 ADVANCED DRAWDOWN (1)			\$38,322		\$12,858		\$10,484	
STATE	\$185,985	\$133,000	\$117,623	63%	\$108,552	58%	\$86,722	47%
LACTC	\$439,447	\$76,377	\$241,151	55%	\$66,079	15%	\$66,079	15%
CITY OF L.A.	\$96,000	\$21,400	\$52,936	55%	\$14,115	15%	\$20,000	21%
BENEFIT ASSESSMENT	\$58,000	\$0	\$8,524	15%	\$8,524	15%	\$0	0%
COST OVERRUN ACCOUNT (2)	\$0	\$12,793	\$0	0%	\$0	0%	\$0	0%
BENEFIT ASSESSMENT SHORTFALL (3)	\$0	\$0	\$0	0%	\$0	\$0	\$8,524	
TOTAL	\$1,446,432	\$791,488	\$813,986	56%	\$337,286	23%	\$311,846	22%
PROP C: AMERICAN DISABILITY ACT	\$5,075	\$0	\$0	0%	\$0	0%	\$0	0%
PROP A: TRANSIT ENHANCEMENTS	\$48,510	\$0	\$0	0%	\$0	0%	\$0	0%
STP: TRANSIT ENHANCEMENTS	\$3,700	\$0	\$0	0%	\$0	0%	\$0	0%
GRAND TOTAL	\$1,503,717	\$791,488	\$813,986	54%	\$337,286	22%	\$311,846	21%

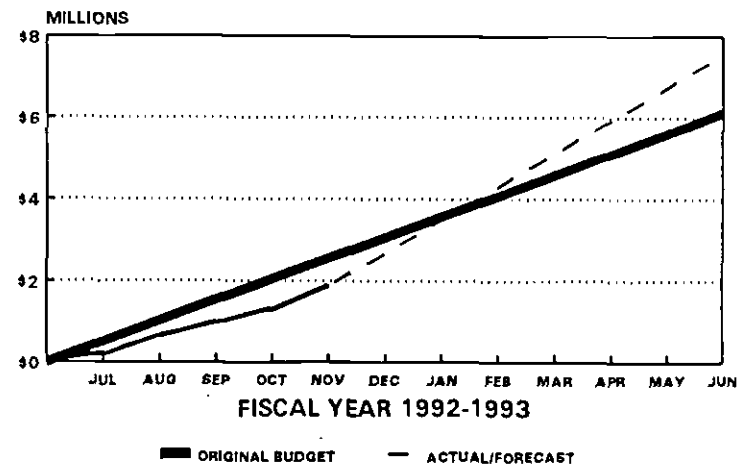
## NOTES:

- \* EXPENDITURES AND BILLED TO SOURCE AMOUNTS ARE AS OF NOVEMBER 27, 1992.
- (1) FTA SECTION 3 ADVANCED DRAWDOWN. COMMITMENTS AND EXPENDITURES EFFECTIVE JULY 1, 1992.
- (2) THE COST OVERRUN ACCOUNT INCLUDES CAPRA FUNDS ONLY.
- (3) THE CURRENT BENEFIT ASSESSMENT DISTRICT REVENUE SHORTFALL IS BEING FUNDED BY LACTC.

## AGENCY COSTS RED LINE SEGMENT 2



## FISCAL YEAR 1993 AGENCY COSTS RED LINE SEGMENT 2



## PROJECT AGENCY COSTS RED LINE SEGMENT 2 (\$000)

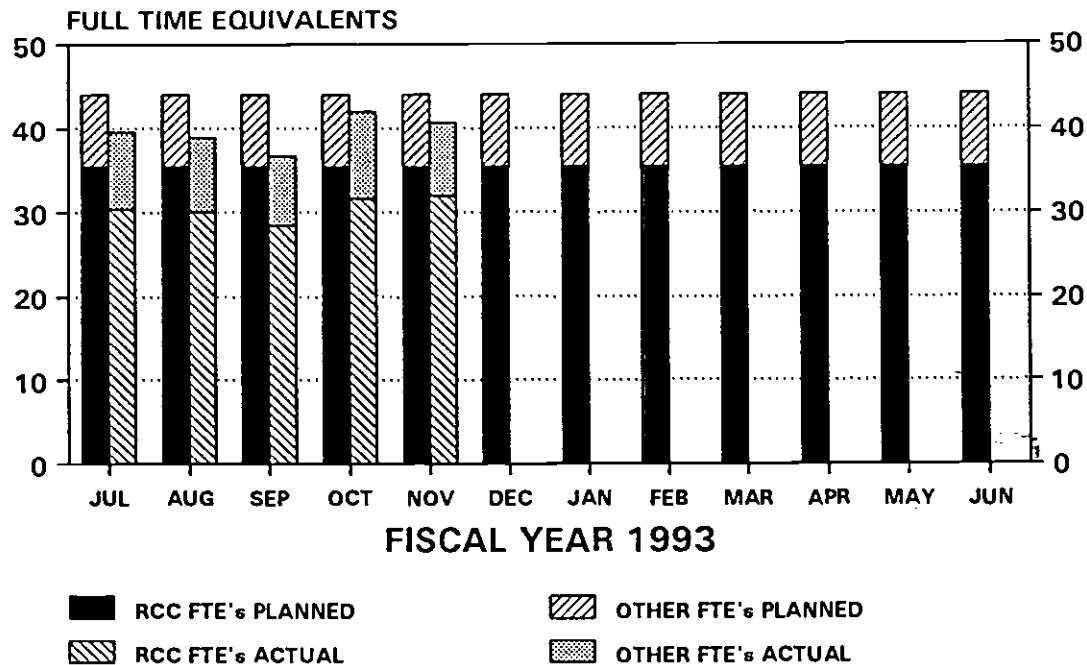
TOTAL PROJECT BUDGET	\$1,446,432
ORIGINAL BUDGET	\$57,840
BUDGET % OF TOTAL PROJECT	4.0%
CURRENT FORECAST	\$70,237
FORECAST % OF TOTAL PROJECT	4.9%

## FISCAL YEAR 1993 AGENCY COSTS RED LINE SEGMENT 2 (\$000)

ORIGINAL BUDGET	\$6,131
CURRENT FORECAST	\$7,571
ACTUAL TO DATE	\$1,863

## STAFFING PLAN VS. ACTUAL

### RED LINE SEGMENT 2



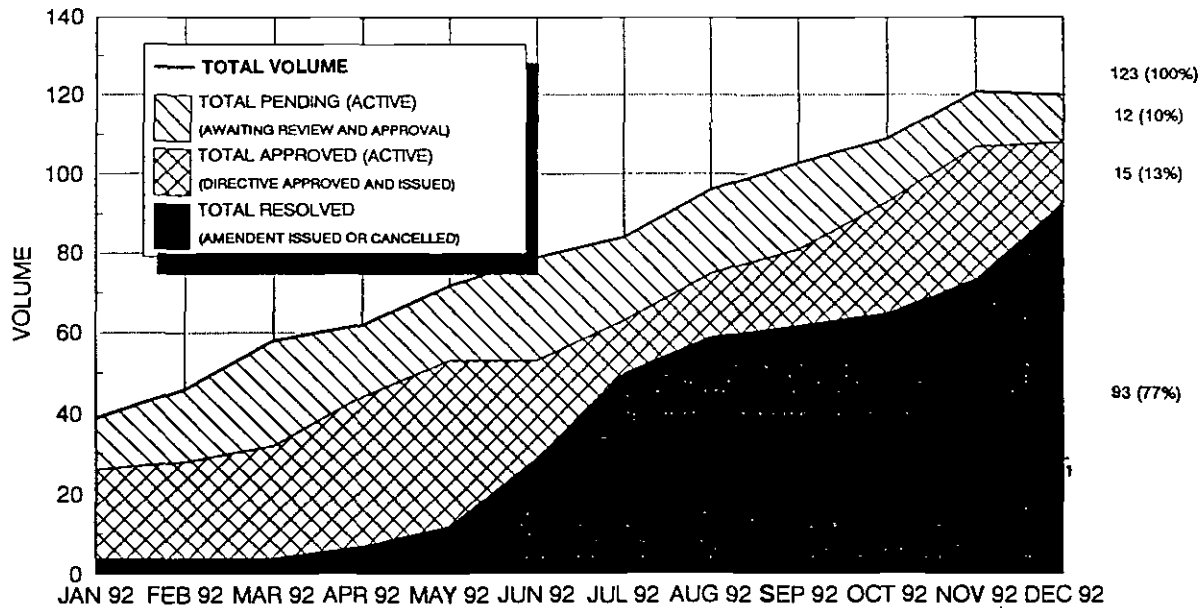
FY'93 Budget

## RED LINE (SEGMENT 2) STAFFING PLAN

### FISCAL YEAR 1993

RCC FTE's PLANNED	35
RCC FTE's ACTUAL	32
OTHER FTE's PLANNED	9
OTHER FTE's ACTUAL	9
TOTAL FTE's PLANNED	44
TOTAL FTE's ACTUAL	41

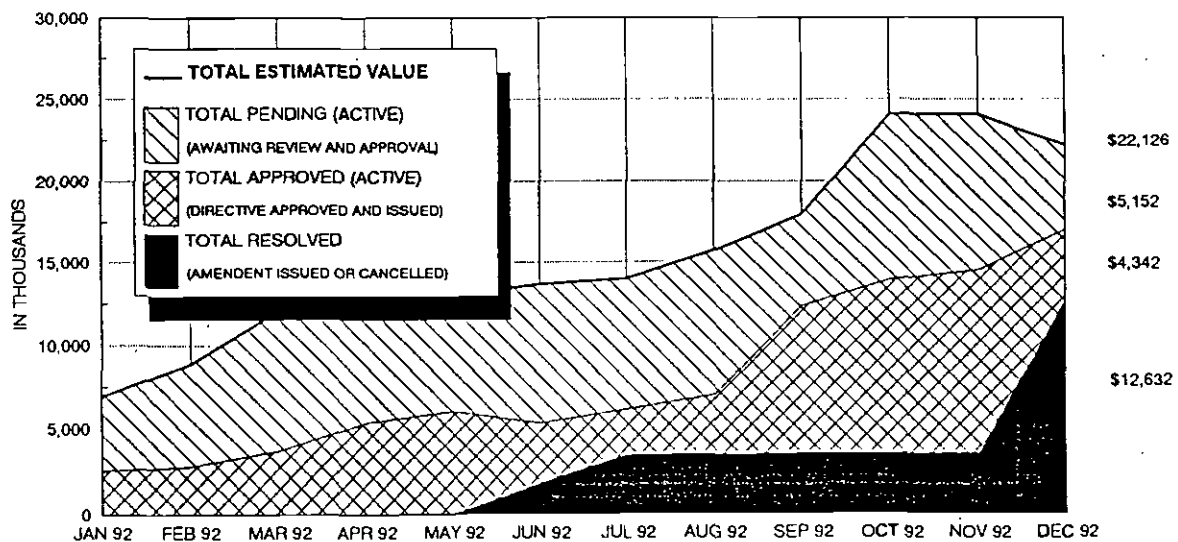
**CONSULTANT CONTRACT CHANGE SUMMARY  
RED LINE SEG-2 CONSULTANT CHANGE REQUEST VOLUME**



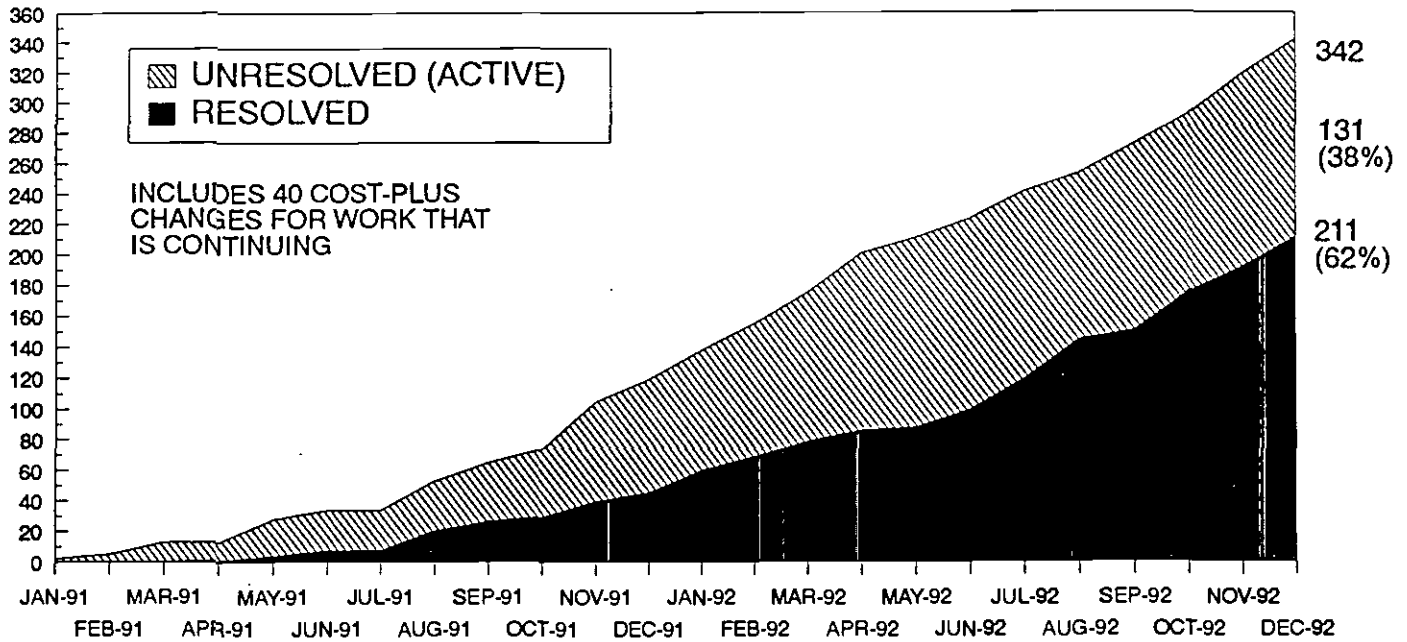
**AGE OF UNRESOLVED CONSULTANT CHANGES**

TIME	0-30 DAYS	30-60 DAYS	61-90 DAYS	OVER 90	TOTAL ACTIVE
VOLUME	3	2	5	17	27
PERCENT	11%	7%	19%	63%	100%

**CONSULTANT CONTRACT CHANGE SUMMARY  
RED LINE SEG-2 CONSULTANT CHANGE REQUEST VALUES**

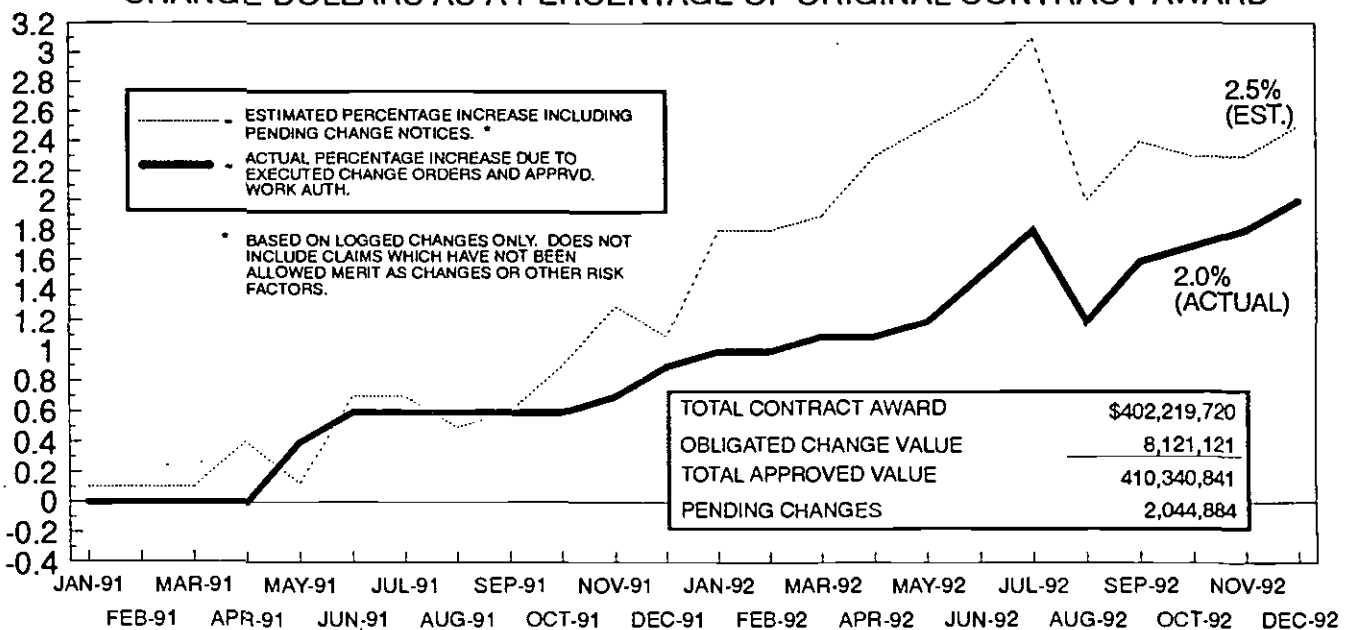


# CONSTRUCTION/PROCUREMENT CONTRACT CHANGES CHANGE NOTICE RESOLUTION

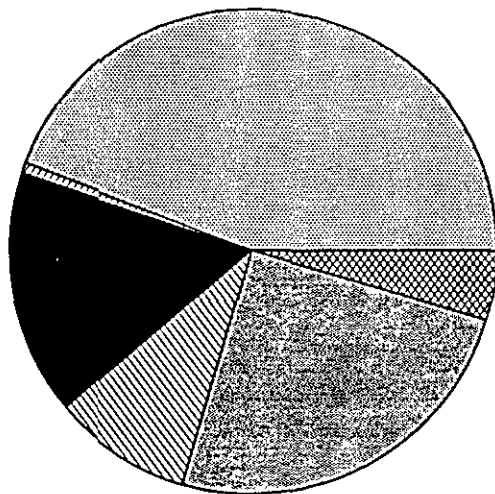


AGE OF UNRESOLVED CHANGES					
TIME	0-30 DAYS	31-60	61-90	OVER 90	TOTAL ACTIVE
VOLUME	48	12	3	68	131
PERCENT	37%	9%	2%	52%	100%

## CONSTRUCTION/PROCUREMENT CONTRACT CHANGES CHANGE DOLLARS AS A PERCENTAGE OF ORIGINAL CONTRACT AWARD

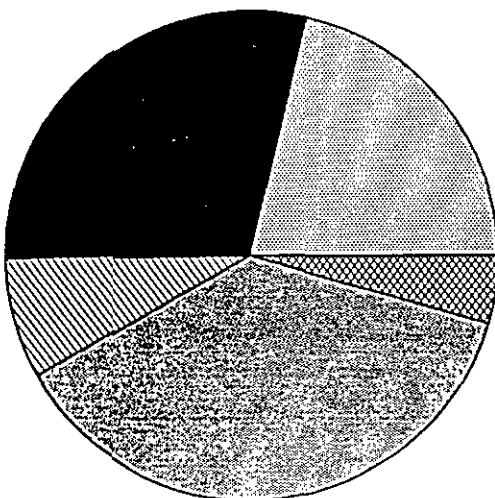


**CONSTRUCTION/PROCUREMENT  
CHANGE VOLUME AND COST BY CHANGE BASIS TYPE  
BASED ON EXECUTED CHANGES AS OF 12/31/92**



CHANGE BASIS VOLUME  
TOTAL VOLUME: 152 CN'S (126 CO'S)

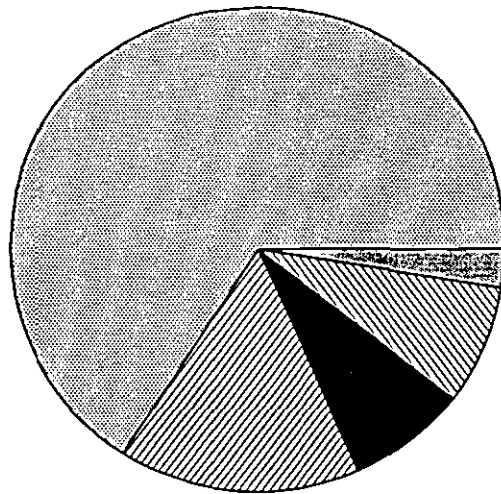
67	44.1%		WORK SCOPE CHANGES
1	0.7%		SCHEDULE CHANGES
25	16.4%		DIFFERING CONDITIONS
14	9.2%		ADMINISTRATIVE
38	25.0%		DESIGN CHANGES
7	4.6%		MANAGEMENT ISSUES
0	0%		UNASSIGNED



CHANGE BASIS COST  
TOTAL COST: \$5,284,243







\$1,123,576	21.3%		WORK SCOPE CHANGES
\$3,405	0.1%		SCHEDULE CHANGES
\$1,522,669	28.8%		DIFFERING CONDITIONS
\$423,512	8.0%		ADMINISTRATIVE
\$1,972,385	37.3%		DESIGN CHANGES
\$238,696	4.5%		MANAGEMENT ISSUES
\$0	0%		UNASSIGNED

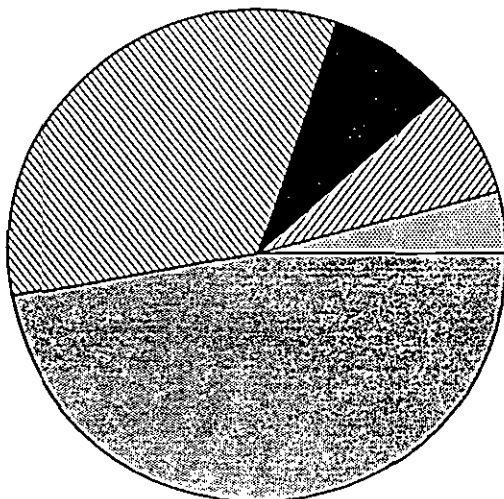
CONSTRUCTION/PROCUREMENT  
CHANGE VOLUME AND COST BY COST LEVEL  
BASED ON EXECUTED CHANGES AS OF 12/31/92









CHANGE VOLUME  
TOTAL VOLUME: 152 CN'S

## ABSOLUTE VALUES

100	65.8%		< \$10,000
24	15.8%		< \$25,000
12	7.9%		< \$50,000
12	7.9%		< \$200,000
4	2.6%		> \$200,000
0	0.0%		> \$1,000,000

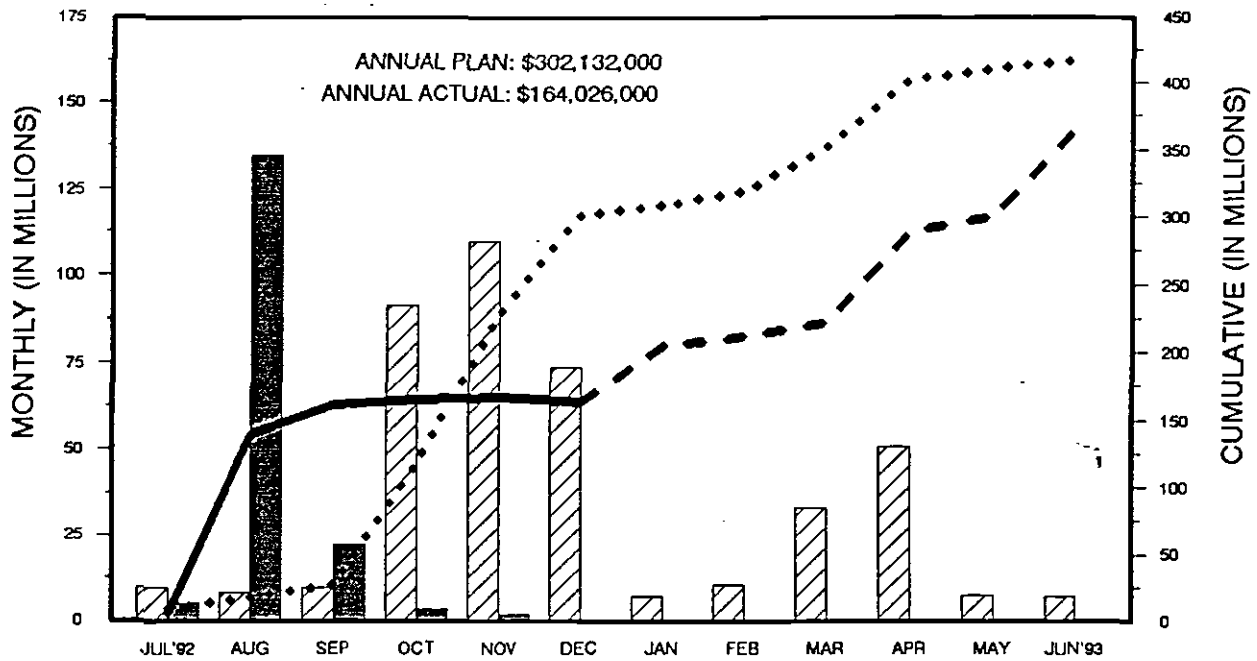


CHANGE COST  
TOTAL COST: \$5,284,243

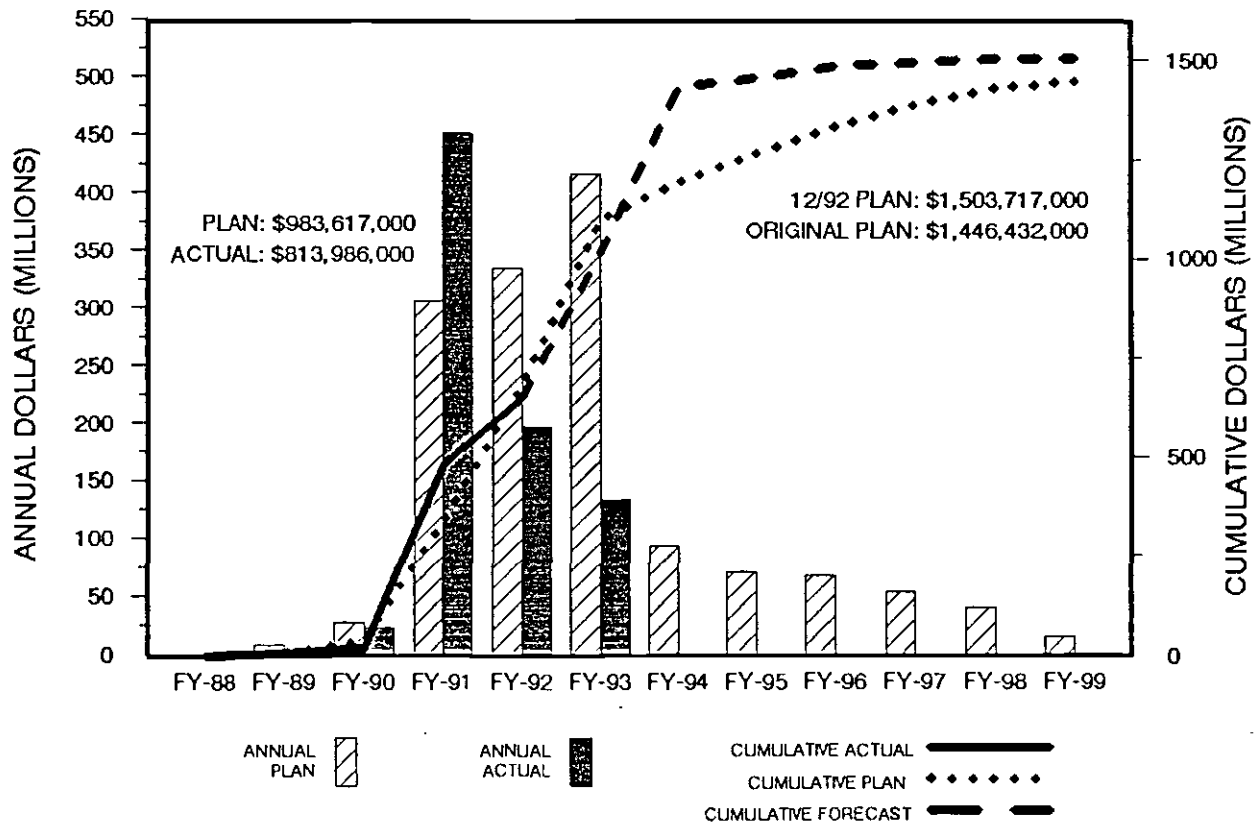
\$215,768	4.1%		< \$10,000
\$391,713	7.4%		< \$25,000
\$435,712	8.3%		< \$50,000
\$1,751,900	33.1%		< \$200,000
\$2,489,150	47.1%		> \$200,000
\$0	0.0%		> \$1,000,000



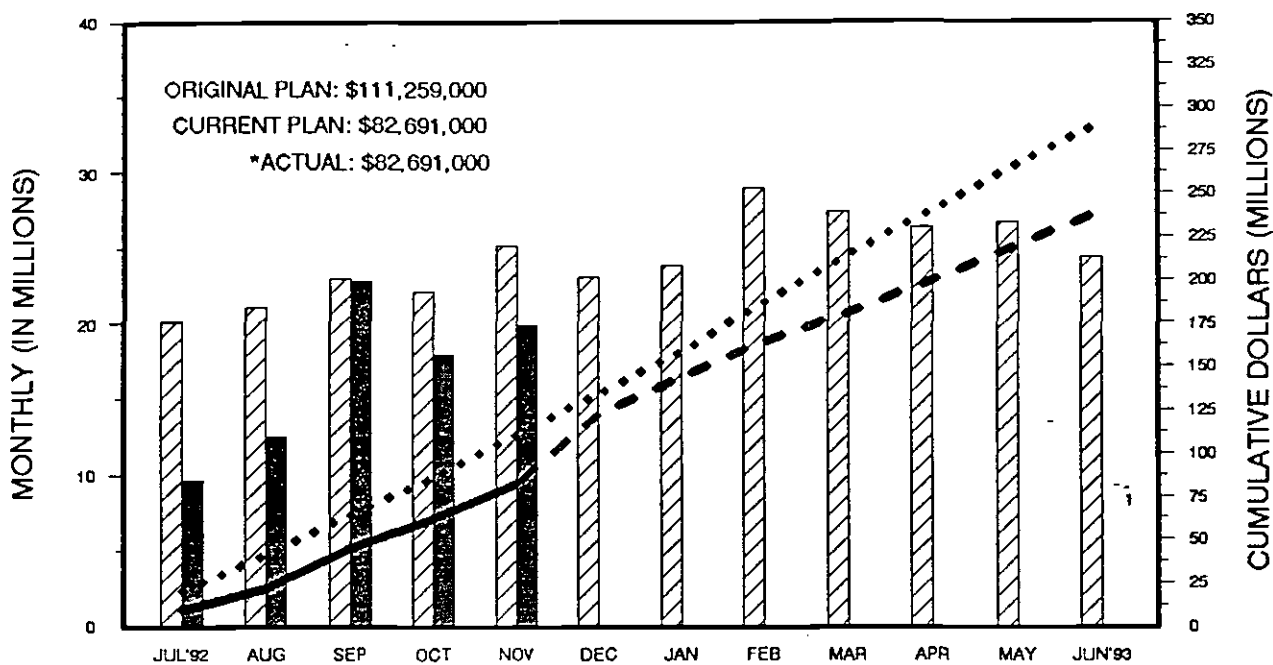
ANNUAL PROJECT COMMITMENTS (FY '93)



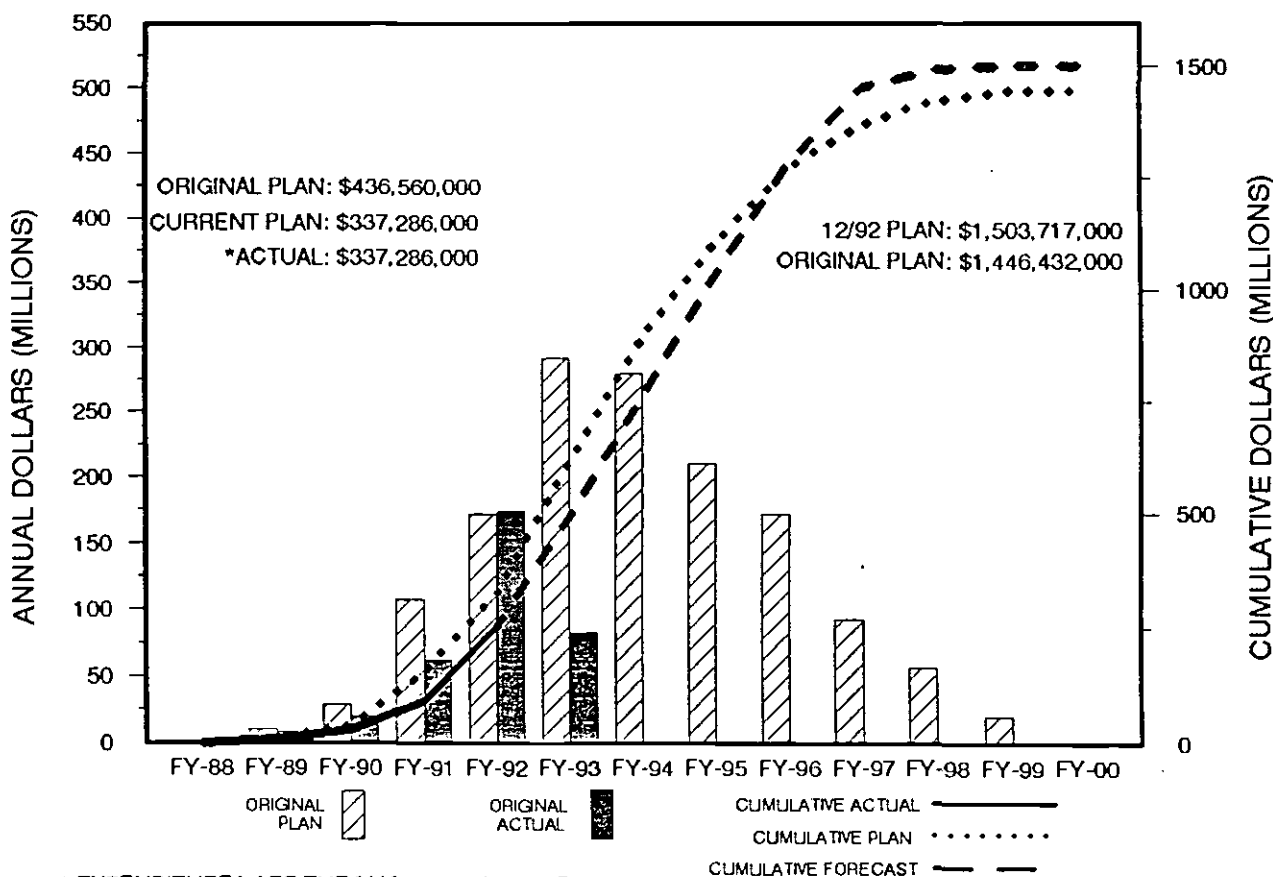
TOTAL PROJECT COMMITMENTS



ANNUAL PROJECT CASHFLOW (FY '93)

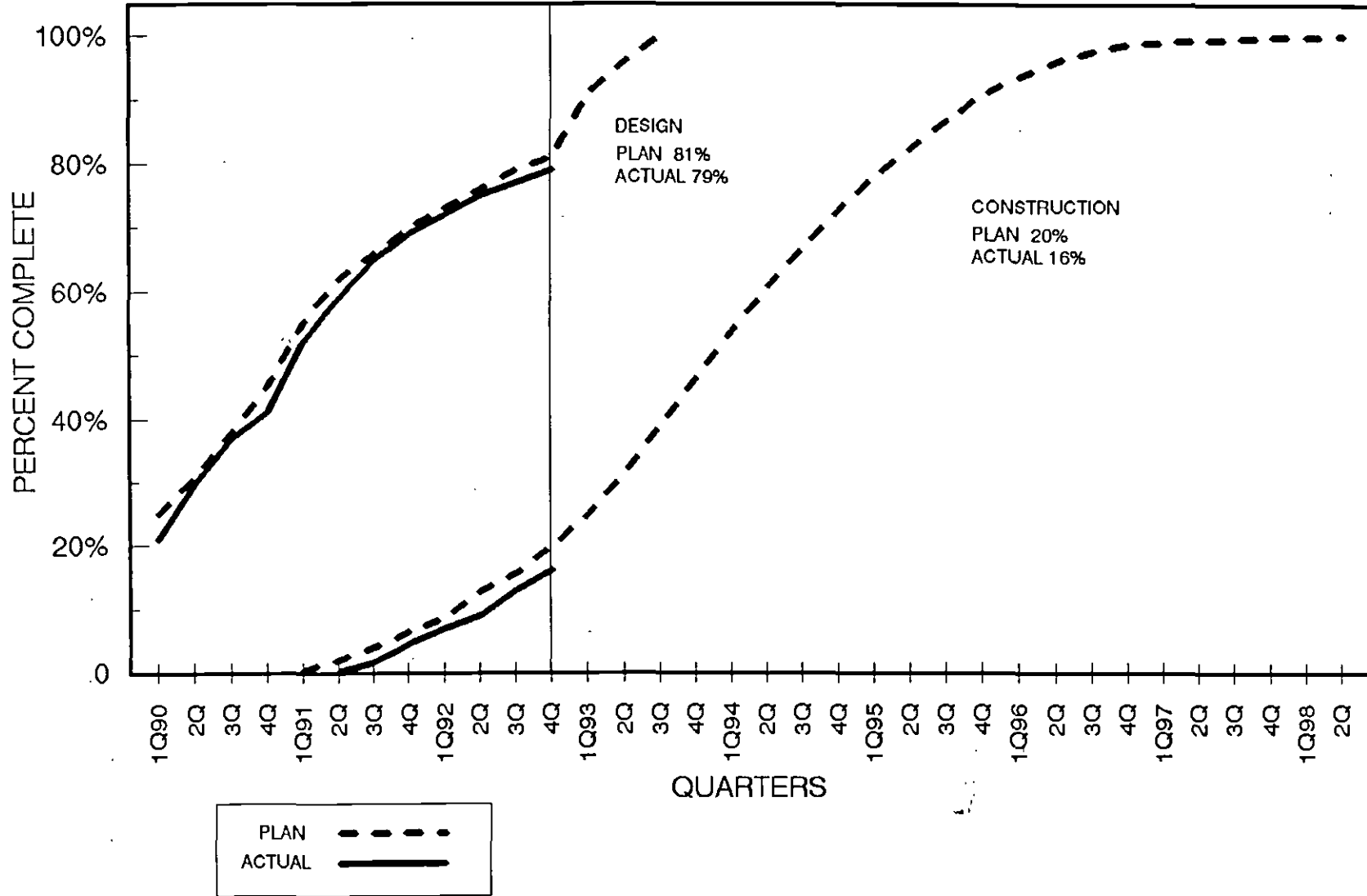


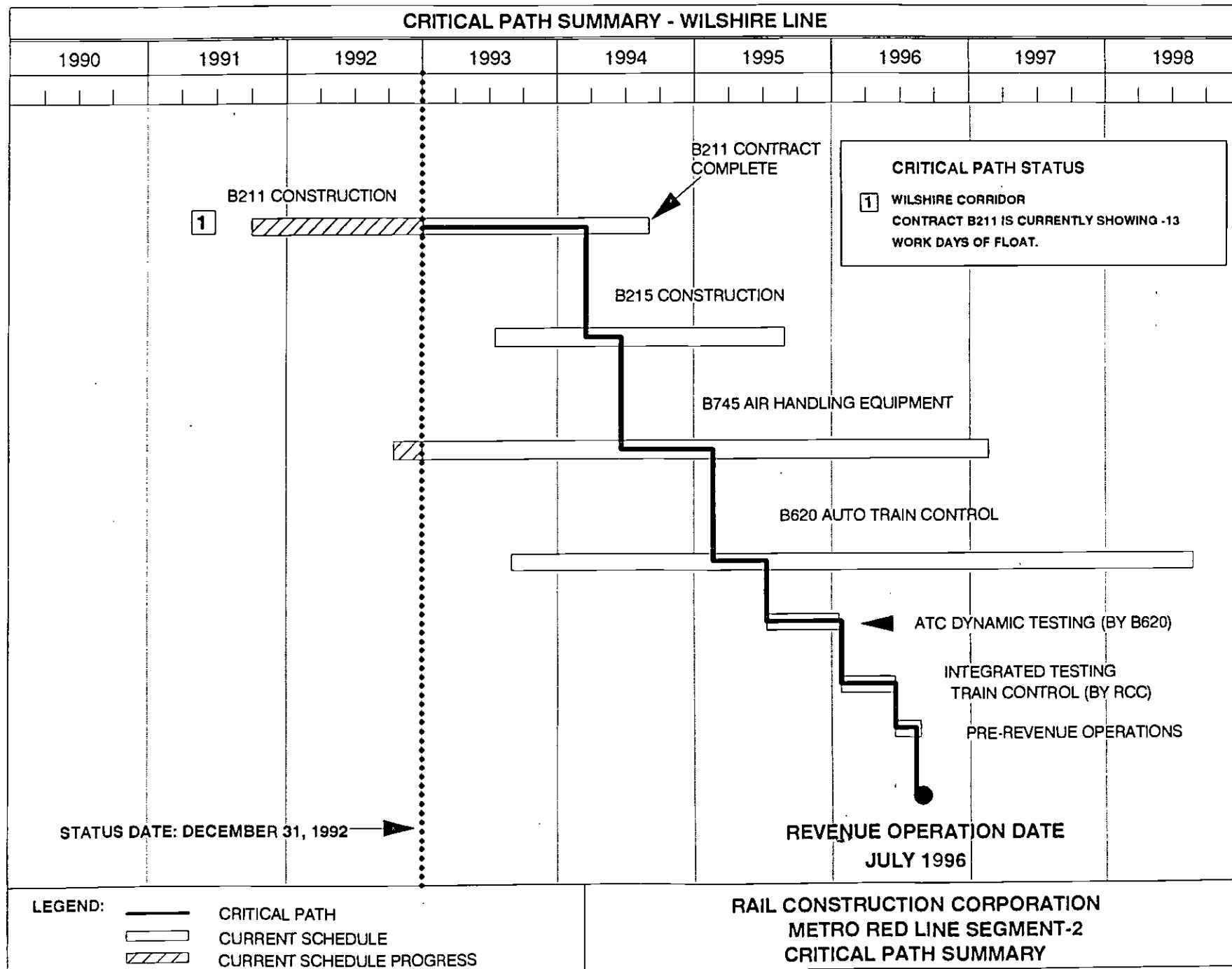
TOTAL PROJECT CASHFLOW

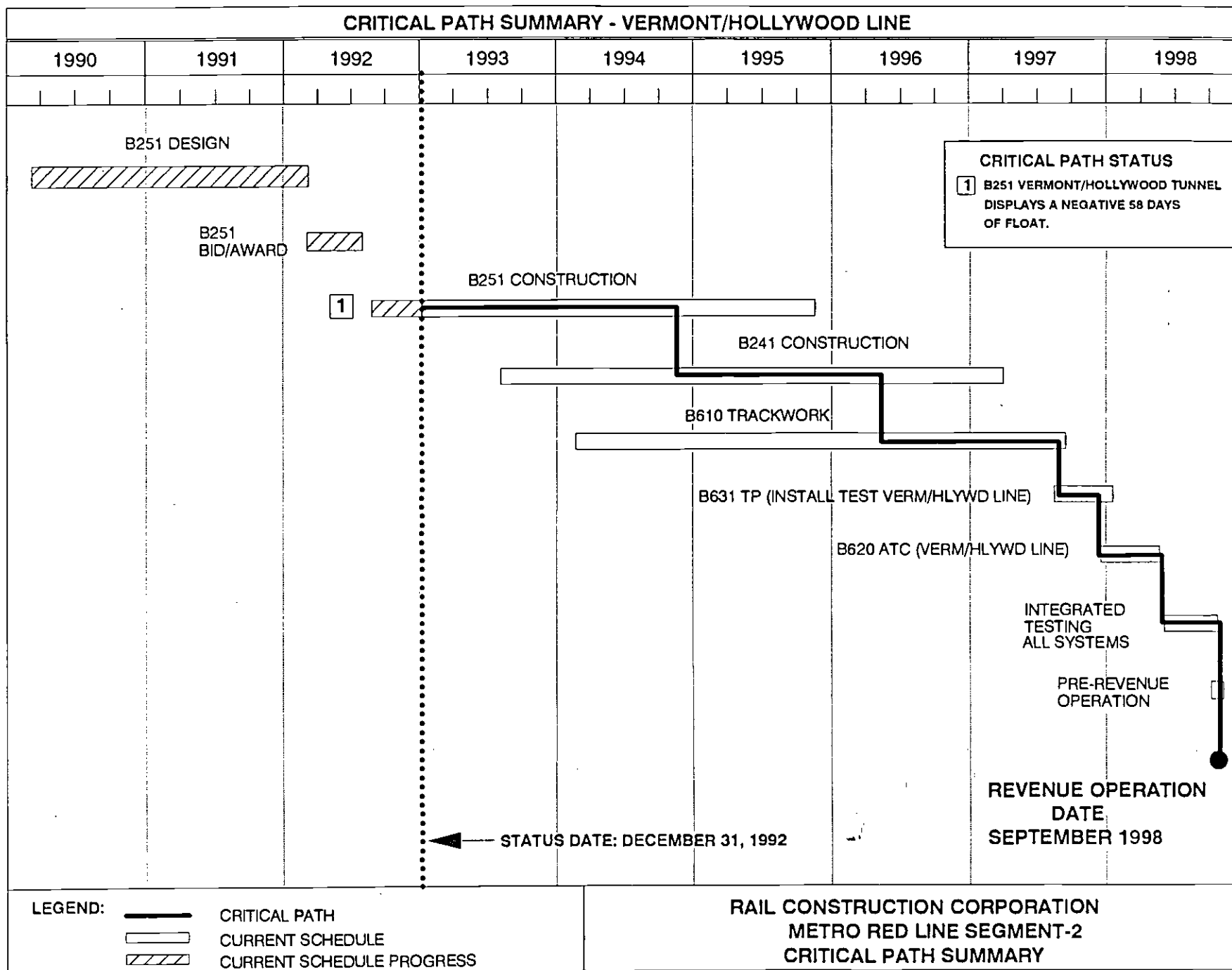


\* EXPENDITURES ARE THROUGH 27-NOVEMBER-92

RAIL CONSTRUCTION CORPORATION  
METRO RED LINE SEGMENT 2  
PROGRESS SUMMARY

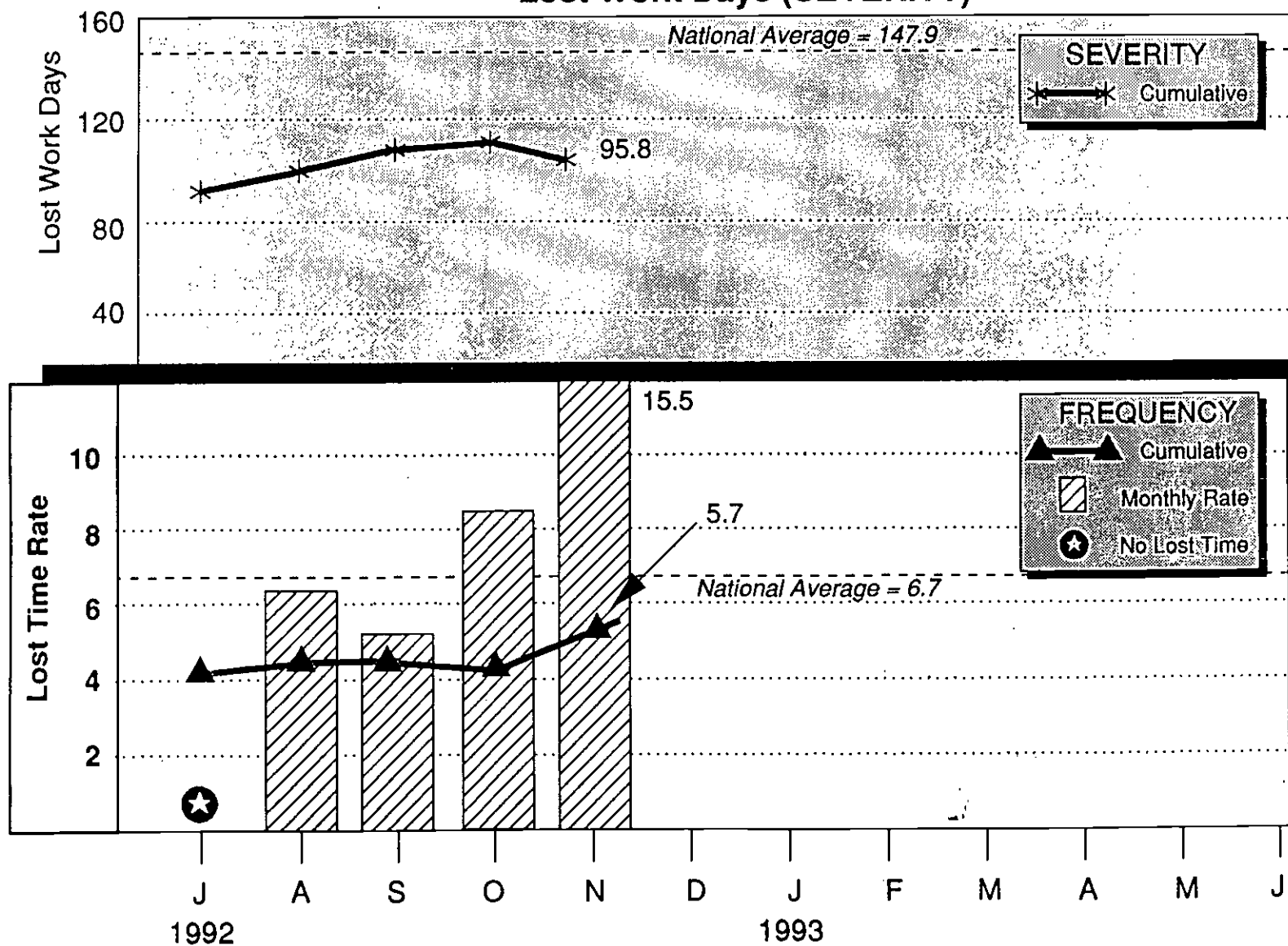






## METRO RED LINE SEGMENT 2

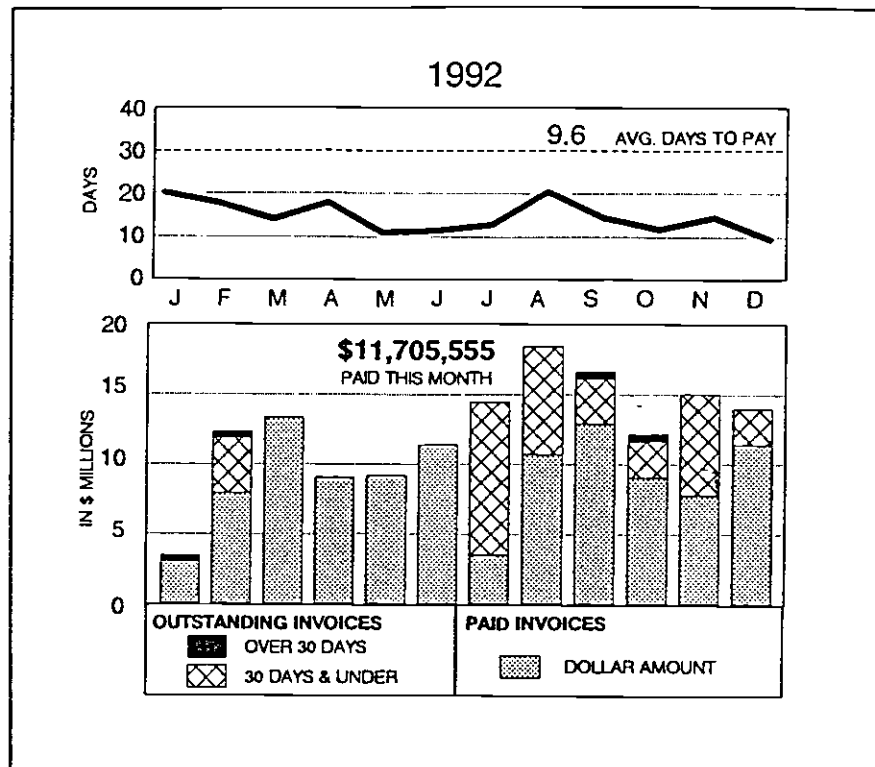
### Summary of Lost Time Accidents (FREQUENCY) and Lost Work Days (SEVERITY)



## INVOICE PROCESSING

- The average time taken to pay invoices for Construction and Procurement contracts (including Insurance) was 9.6 days.
- 7 invoices were paid for a total value of \$11,705,555.
- There were 11 outstanding Construction or Procurement invoices under 30 days old for \$ 2,618,004.
- There were no outstanding Construction or Procurement invoices over 30 days old.

## Construction/Procurement Invoice Status



Note: The average days to pay is the time from when the Resident Engineer approves a progress payment (invoice) to when Accounting issues a check for this invoice.

## OUTSTANDING INVOICES

Month	Construction/Procurement Invoices				Other Invoices			
	30 Days and Under		Over 30 Days		30 Days and Under		Over 30 Days	
	Number of Invoices	Dollar Value	Number of Invoices	Dollar Value	Number of Invoices	Dollar Value	Number of Invoices	Dollar Value
JUL 1992	22	11,221,289	0	0	39	2,672,310	14	122,873
AUG 1992	19	7,881,268	0	0	13	793,536	15	850,530
SEP 1992	15	3,283,456	1	574,379	28	3,339,335	11	916,585
OCT 1992	10	2,640,326	1	574,379	31	4,074,525	14	1,468,336
NOV 1992	9	7,439,394	0	0	25	2,017,349	10	193,547
DEC 1992	11	2,618,004	0	0	27	1,361,225	4	40,372