

29481702

COST AND SCHEDULE
STATUS REPORT
February 1985

MTA LIBRARY



SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

NOVEMBER 1984



METRO RAIL PROJECT PROJECT UNIT INDEX

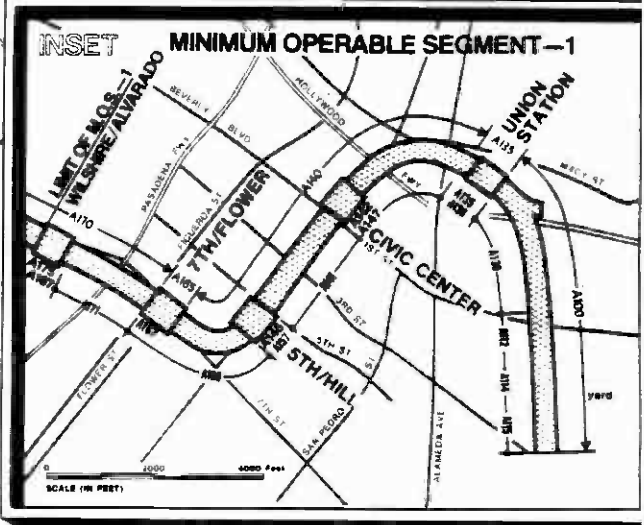
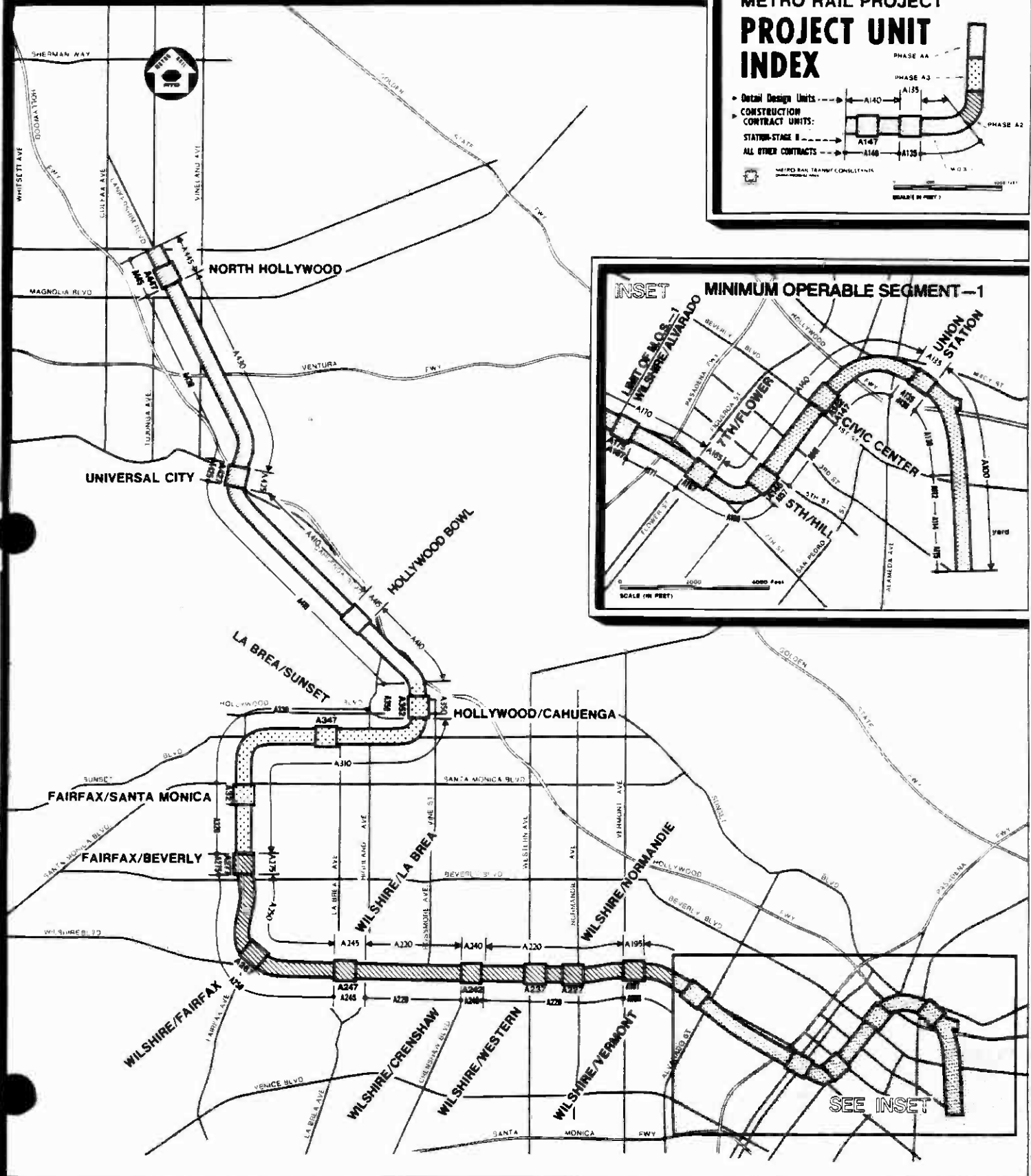
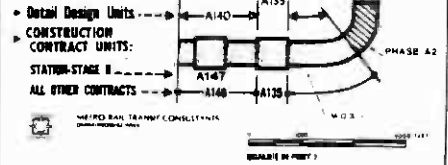


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SECTION I: BUDGET SUMMARY

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RTD METRO RAIL PROJECT

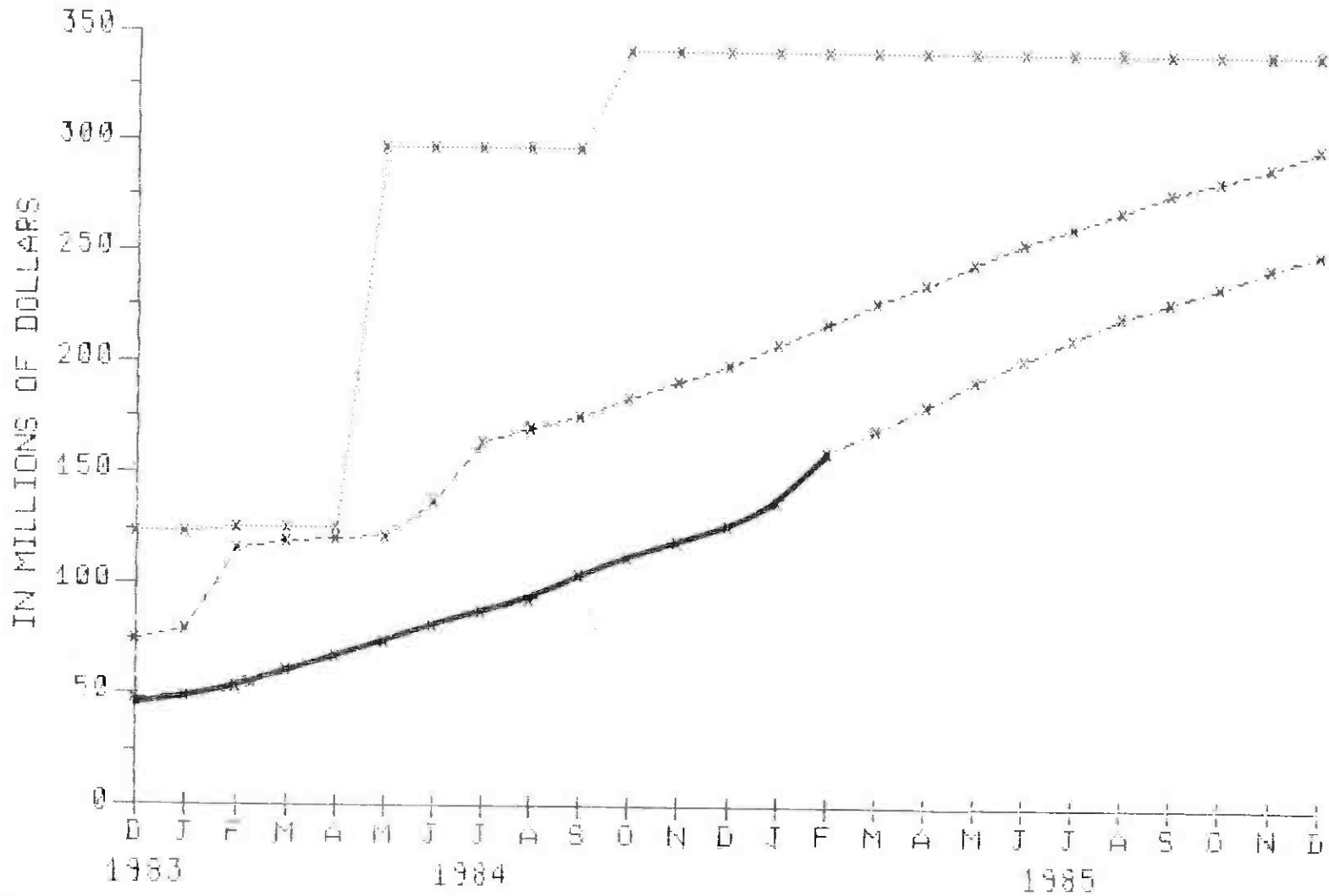
STATUS NARRATIVE

FEBRUARY 1985

The Total Project Approved Budget is now \$340.790 million which includes contingencies, advanced land acquisition, revenue financing and all funding sources. Total Project expenditures to date total \$159.053 million.

The accompanying graph illustrates the planned expenditures of \$218 million against the actual expenditures. This variance of \$59 million is primarily due to the late issuance of contract NTP's and the late acquisition of R-O-W properties.

HFD METRO RAIL PROJECT
 TOTAL PROJECT STATUS
 AS OF FEBRUARY 1985



--*-- FORECAST ——— ACTUALS - - - - - PLANNED EXPENDITURES CAPITAL GRANT FUNDS



SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT NOS-1

OBLIGATIONS PLAN/FORECAST
11st QTR. 1985 FUNDING

REV. 0
FEB 14, 85

CONTRACT ID	DESCRIPTION	NTP DATE	ESCALATED COSTS (000)	OBLIG. TO DATE	FY							
					'85	'86	'87	'88	'89	'90	'91	
A-111	CURBS/GUTTERS/SIDEWALK - GANTE FE AVENUE	11/17/87	183					183				
A-112	MAIN SHOP BUILDING & YARD SERVICE AREA	8/7/85	24638		24638							
A-114	MAINTENANCE-OF-WAY SHOP BUILDING	8/7/85	4026		4026							
A-115	YARD STORAGE AREA	2/27/86	4364		4364							
A-116	YARD SITE SECURITY FENCING	4/5/89	234						234			
A-117	YARD SITE LIGHTING	4/5/89	293						293			
A-118	YARD SITE LANDSCAPING	3/28/88	83				83					
A-119	TRACK RELOCATION, 1st ST. & HOBART YARD	4/1/85	16500		16500							
A-130	YARD LEADS & TRANSFER ZONE	1/7/86	60502		60502							
NA-007	YARD/SHOPS - TELEPHONE RELOCATION	5/1/85	131		131							
NA-093	YARD/SHOPS - GAS RELOCATION	5/1/85	581		581							
NA-A09	YARD/SHOPS - WATER RELOCATION	5/1/85	235		235							
NA-TT7	YARD/SHOPS - CHEVRON RELOCATION	1/7/86	303		303							
A-133	UNION STATION - BAGGAGE HANDLING	9/5/85	1605		1605							
A-135	UNION STATION - STAGE I	9/5/85	34193		34193							
A-136	UNION STATION - STAGE II	5/8/87	13846			13846						
A-138	UNION STATION - SITEMARK - CURBS/GUTTERS	10/3/89	1129							1129		
A-139	UNION STATION - SITE LANDSCAPING	10/3/89	207							207		
A-137	CENTRAL CONTROL FACILITY	8/4/86	2661			2661						
A-141	LINE-UNION TO 7th/FLOWER-CIVIC CTR STG 1	12/16/85	56832		56832							
NA-009	5th/HILL - POWER RELOCATION	4/1/85	1683		1683							
NA-007	5th/HILL - TELEPHONE RELOCATION	4/1/85	379		379							
NA-093	5th/HILL - GAS RELOCATION	4/1/85	316		316							
NA-A09	5th/HILL - WATER RELOCATION	4/1/85	379		379							
NA-446	5th/HILL - CABLE TV RELOCATION	4/1/85	32		32							
NA-111	5th/HILL - WESTERN UNION	4/1/85	16		16							
A-145	5th/HILL STATION - STAGE I	12/16/85	48227		48227							
NA-009	CIVIC CENTER - POWER RELOCATION	4/1/85	57		57							
NA-007	CIVIC CENTER - TELEPHONE RELOCATION	4/1/85	226		226							
NA-A09	CIVIC CENTER - WATER RELOCATION	4/1/85	193		193							
NA-111	CIVIC CENTER - WESTERN UNION	4/1/85	5		5							
A-142	CIVIC CENTER EXCAVATION & SUPPORT	8/7/85	12403		12403							
NA-093	EXCAV. SUPPORT - GAS RELOCATION	4/1/85	57		57							
A-147	CIVIC CENTER STATION - STAGE II	7/14/88	17729							17729		
A-157	5th/HILL STATION - STAGE II	11/18/87	17496				17496					
A-148	5th/HILL - VAULTS RELOCATION	9/9/85	425		425							

DATA LIBRARY

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
METRO RAIL PROJECT MDS-1

OBLIGATIONS PLAN/FORECAST
(1st QTR. 1985 FUNDING)

REV. 0
FEB 14, 85

CONTRACT #	DESCRIPTION	NTP DATE	ESCALATED COSTS OBLIG. TO							
			10001 DATE	FY'85	FY'86	FY'87	FY'88	FY'89	FY'90	FY'91
A-166	LINE-5th/HILL-7th/FLOWER-7th/FLOWER STATION 616 I	12/16/85	70433		70433					
A-167	7th/FLOWER STATION - STAGE II	3/20/86					9490			
PA-009	7th/FLOWER - POWER RELOCATION	4/1/85	341		341					
PA-007	7th/FLOWER - TELEPHONE RELOCATION	4/1/85	433		433					
PA-093	7th/FLOWER - GAS RELOCATION	4/1/85	57		57					
PA-009	7th/FLOWER - WATER RELOCATION	4/1/85	433		433					
PA-446	7th/FLOWER - CABLE TV RELOCATION	4/1/85	26		26					
PA-111	7th/FLOWER - WESTERN UNION	4/1/85	114		114					
A-171	LINE - 7th/FLOWER TO WILSHIRE/VERMONT	9/19/85	30443		30443					
A-175	WILSHIRE/ALVARADO STATION - STAGE I	9/19/85	30617		30617					
A-187	WILSHIRE/ALVARADO STATION - STAGE II	7/14/86	9648					9648		
A-185	WILSHIRE/ALVARADO STATION - SITEWORK	5/11/89	823						823	
A-186	WILSHIRE/ALVARADO STATION - SITE LANDSCAPE	5/11/89	125						125	
PA-009	WILSHIRE/ALVARADO - POWER RELOCATION	4/16/85	50		50					
PA-007	WILSHIRE/ALVARADO - TELEPHONE RELOCATION	4/16/85	57		57					
PA-093	WILSHIRE/ALVARADO - GAS RELOCATION	4/16/85	104		104					
PA-009	WILSHIRE/ALVARADO - WATER RELOCATION	4/16/85	73		73					
	MRT-In-TRANSIT	6/1/88	971					971		
A-610	TRACKWORK PROCUREMENT/INSTALLATION	11/19/85	10560		10560					
A-612	CONTACT RAIL PROCUREMENT	3/19/86	1029		1029					
A-615	PROTECTIVE COVERBOARD PROCUREMENT	3/19/86	1056		1056					
A-620	AUTOMATIC TRAIN CONTROL	7/9/86	23400			23400				
A-630	TRACTION POWER PROCUREMENT	9/15/86	6205			6205				
A-631	TRACTION POWER INSTALLATION	7/10/87	6110				6110			
A-640	COMMUNICATIONS PROCURE & INSTALL	8/7/86	10270				10270			
A-650	PASSENGER VEHICLES PROCUREMENT	6/4/86	53410		53410					
A-660	FARE COLLECTION PROCURE & INSTALL	5/7/87	10230			10230				
A-671	LOCOMOTIVE PROCUREMENT	2/17/88	769					769		
A-672	FLAT CARS PROCUREMENT	2/17/88	50					50		
A-675	CRANE PROCUREMENT (FOR FLAT CARS)	2/17/88	26					26		
A-680	OPERATIONAL GRAPHICS	11/30/88	133						133	
A-710	ESCALATORS PROCURE & INSTALL	7/25/86	12132				12132			
A-720	ELEVATORS PROCURE & INSTALL	7/25/86	1362				1362			
A-730	SHOP EQUIPMENT (FIXED) PROCURE & INSTALL	5/20/86	27		27					
A-735	SHOP EQUIPMENT (FREE STANDING/PORTABLE)	3/21/86	315		315					
A-740	FANS/BANERS PROCUREMENT	8/20/85	7640		7640					
A-745	AIR HANDLING EQUIPMENT (TPSS) PROCURE	8/5/86	220			220				
A-760	SIGNS & GRAPHICS PROCUREMENT	12/20/88	1762						1762	
A-770	SHOP EQUIPMENT - RUBBER TIRED VEHICLES	11/17/87	394					394		
A-775	MOBILE EMERGENCY & MAINTENANCE EQUIPMENT	11/17/87	300					300		
A-780	FURNITURE PROCUREMENT	11/17/87	190					190		
A-790	FIRST STORES & CONSUMABLES PROCUREMENT	3/25/86	111		111					

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT
 METRO RAIL PROJECT NOS-1

REV. 0
 FEB 14, 85

OBLIGATIONS PLAN/FORECAST
 (1st QTR. 1985 FUNDING)

CONTRACT 0	ESCALATED		OBLIG. TO								
	DATE	COSTS 1000)	DATE	FY'85	FY'86	FY'87	FY'88	FY'89	FY'90	FY'91	
GENERAL CONSULTANT		150860	33400	45700	29330	6224	6055	6221	4855	2078	
CONSTRUCTION MANAGER		71534		5510	10855	12464	14344	13151	11440	3561	
RIGHT OF WAY		87452	172	48527	30753						
AGENCY		102953	20412	15200	13011	13923	13034	11947	10655	4751	
OWNER CONTROLLED INSURANCE		51256		14540	19150	8410	6744	2404			
PRELIMINARY ENGINEERING		38843	38843								
Project Obligations (w/o contingencies)			1152956	94827	172415	576508	129527	76535	64469	28286	10389

7
 BASIS - ASSUMES REVENUE SERVICE DATE OF - MAY 1991
 ASSUMES FUNDING AVAILABILITY OF - 1st QUARTER 1985

METRO RAIL PROJECT
AVAILABLE FUNDS CASHFLOW - MOG-1
(\$000)

1 2 3 4
(1 - 3)

5 6
(4 - 5)

CASHFLOW

AFE	DESCRIPTION	APPROVED BUDGET	ACTUAL OBLIG. THRU 2/85	ACTUAL EXPENDED THRU 2/85	REMAINING BUDGET THRU 2/85	FY 1985												FY 1986				TOTAL CASHFLOW FROM 1/85 TO 2/86	BAL.
						CALENDAR 1985																	
						JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB				
02110	R.O.W (NOTE 1)	60863	1003	1003	59860	PLAN ACTUAL F'CAST	0 768 0	0 16 0	0 0 0	0 0 0	7130 9675 687	9675 687 669	5272 5272 5272	5272 5272 5272	5272 5272 5272	5272 5272 5272	5272 5272 5272	5272 5272 5272	5272 5272 5272	49793	10682		
02103	PROFESSIONAL SERVICES FOR ENG./DESIGN	139475	134182	111423	28052	PLAN ACTUAL F'CAST	5631 4183 0	4831 4707 0	5320 0 0	5074 0 0	4841 4619 4422	4619 4422 3971	4422 3971 3571	3971 3571 3216	3571 3216 2901	3216 2901 2621	2901 2621 1988	2621 1988 1670	1988 1670 54676	-17734			
02111	PROFESSIONAL SERVICES FOR CONSTR. MGMT	9000	6590	2063	6937	PLAN ACTUAL F'CAST	610 179 0	532 154 0	299 0 0	412 0 0	447 0 0	445 0 0	455 0 0	440 0 0	600 0 0	700 0 0	850 0 0	940 0 0	950 0 0	955 0 0	8625	-1355	
02117	RAILROAD RELOCATION	17000	12870	0	17000	PLAN ACTUAL F'CAST	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 230	1472 1680 1872	1680 1872 2000	1872 2000 1952	2000 1952 9206	1952 9206 7794	9206	7794		
02104	FORCE ACCOUNT	19416	15485	15485	3931	ACTUAL	436	1,678															
02106	GEN. & ADM.	825	729	729	96	ACTUAL	96	80															
02105	OTHER SUPPORT SERVICES	3350	3355	3555	(5)	ACTUAL	59	93															
02101	SUPPORT AUTOS	70	70	22	48	ACTUAL	0	0															
02102	SUPPORT EQUIPMENT	2290	1400	1182	1108	ACTUAL	-39	6															
02108	MIS EQUIPMENT	1000	823	719	281	ACTUAL	719	0															
02109	COMMUNICATION EQUIPMENT	100	0	0	100	ACTUAL	0	0															
	TOTAL AGENCY	27051	21862	21492	5559	PLAN ACTUAL F'CAST	800 1271 800	800 1857 800	800 800 800	800 800 800	800 800 800	800 800 800	800 800 800	800 800 800	800 800 800	800 800 800	800 800 800	800 800 800	800 800 800	11200	-2513		

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METRO RAIL PROJECT
AVAILABLE FUNDS CASHFLOW - MOS-1
(\$000)

AFE	DESCRIPTION	1 APPROVED BUDGET	2 ACTUAL OBLIG. THRU 2/85	3 ACTUAL EXPENDED THRU 2/85	4 REMAINING BUDGET THRU 2/85 (1 - 3)	CASH FLOW																5		6	
						FY 1985					CALENDAR 1985					FY 1986					TOTAL CASHFLOW FROM 1/85		TOTAL CASHFLOW TO 2/86 BAL.		
						JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB						
02107	CONTIN- GENCIES	3537	0	0	3537	PLAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3537	0
						ACTUAL	0	0																	
						F'CAST																			
02116	REVENUE FINANCING	2240			2240	PLAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2089	0
						ACTUAL	0	0																	
						F'CAST																			
PROJECT TOTAL INCLUDING CONTINGENCIES						PLAN	7041	21863	6419	6286	13218	22897	7209	7061	11681	11808	11911	11851	11439	11731	162415	10115			
						ACTUAL	6401	21978																	
						F'CAST																			

\$21,978,000 Feb

METRO RAIL PROJECT
AVAILABLE FUNDS CASHFLOW - MOS-1
(\$000)

1 2 3 4
(1 - 3)

5 6
(4 - 5)

CASHFLOW

AFE	DESCRIPTION	APPROVED BUDGET	ACTUAL OBLIG. THRU 2/85	ACTUAL EXPENDED THRU 2/85	REMAINING BUDGET THRU 2/85	FY 1985												FY 1986				TOTAL CASHFLOW FROM 1/85 TO FEB 2/86	BAL.
						CALENDAR 1985												JAN	FEB	TO 2/86			
						JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	TO 2/86	BAL.		
04501	YARD/SHOPS ACQUISITION	31000	29000	13789	17211	ACTUAL	0	13620															
04502	YARD/SHOPS ACQUISITION	1630	1630	1624	6	ACTUAL	0	1624															
	TOTAL YARD & SHOPS ACQUISITION	32630	30630	15413	17217	PLAN ACTUAL F'CAST	0 0 0	15700 15244	0 0	0 0	7268	736	1008	1018	0	0	0	0	0	25730	6900		
02112	OWNER-CONTROLLED INSURANCE	4000	894	100	3900	PLAN ACTUAL F'CAST	0 0 0	0 0	0 0	0 0	90	119	173	190	348	408	346	429	1082	3185	715		
	PROJECT SUBTOTAL (WITHOUT CONTINGENCIES)	290019	208031	151494	138525	PLAN ACTUAL F'CAST	7041 6401	21863 21978	6419	6286	13218	22897	7209	7061	11601	11808	11911	11851	11439	11731	162415	4489	

NOTE: 1) YARD & SHOPS PARCELS ARE OBLIGATED AGAINST CTC/LACTC ADVANCED LAND ACQUISITION FOR YARD & SHOPS (\$ 32.6 MILLION - AFE 04501 & 04502)

BASIS:

- A) CASHFLOW REFLECTS THE DISTRICT'S ACTUAL PAYMENT HISTORY WHICH APPEARS TO BE APPROXIMATELY 2 MONTHS AFTER THE EXPENSE HAS ACCRUED.
- B) THIS CASHFLOW ASSUMES THAT THE GC & CM WILL CONTINUE WORKING AFTER THEIR CURRENT AWP'S HAVE EXPIRED. WE CANNOT OBLIGATE ANOTHER FULL YEAR AWP DUE TO FUNDING LIMITATIONS.
- C) OCIP IS CURRENTLY SHOWN AS A % OF THE PLANNED CONSTRUCTION CASHFLOW.

SCRIPPS METRO RAIL PROJECT

DETAILED FUNDING BREAKDOWN

Funding Increment	UMTA	FUNDING SOURCE				
		STATE	FEDERAL	LOCAL	OTHER	TOTAL
Preliminary Engineering Phase I (6/80) CA-03-0130	\$ 12,000,000	\$ -0-	\$ 2,816,250	\$ 750,000	\$ -0-	\$ 15,566,250
Preliminary Engineering Phase II (5/82) CA-03-0130-01	\$ 9,800,000	\$ -0-	\$ 1,683,250	\$ 612,500	\$ -0-	\$ 12,095,750
Preliminary Engineering Phase III (7/82) CA-03-0130-02	\$ 9,274,400	\$ -0-	\$ 1,326,950	\$ 579,650	\$ -0-	\$ 11,181,000
SUB-TOTAL Preliminary Engineering	\$ 31,074,400	\$ -0-	\$ 5,826,450	\$ 1,942,150	\$ -0-	\$ 38,843,000
Continued Preliminary Engineering, Phase I (9/82) CA-03-0130-03	\$ 15,000,000	\$ -0-	\$ 2,812,500	\$ 937,500	\$ -0-	\$ 18,750,000
Continued Preliminary Engineering, Phase II (4/83) CA-03-0130-04	\$ 25,000,000	\$ -0-	\$ 5,503,000	\$ 2,830,000	\$ -0-	\$ 33,333,000 (1)
SUB-TOTAL Continued Preliminary Engineering	\$ 40,000,000	\$ -0-	\$ 8,315,500	\$ 3,767,500	\$ -0-	\$ 52,083,000
Acquisition of Santa Fe Rail Yard (9/83) X-7619	\$ -0-	\$ -0-	\$ 31,000,000	\$ 1,630,000	\$ -0-	\$ 32,630,000
Advanced Land Acquisition (9/83) CA-90-0022	\$ -0-	\$ 14,760,000	\$ -0-	\$ -0-	\$ 3,690,000	\$ 18,450,000
Pre-Construction (5/84) CA-03-0130-05,06	\$ 105,400,000	\$ -0-	\$ 27,100,000	\$ 37,500,000	\$ -0-	\$ 170,000,000
Busway Modification (7/84)	\$ -0-	\$ -0-	\$ -0-	\$ 2,500,000	\$ -0-	\$ 2,500,000
Funds Available For Future Use/Match	\$ -0-	\$ 25,483,720	\$ 300,000	\$ 500,000	\$ -0-	\$ 26,283,720
TOTAL, ALL GRANT ALLOCATIONS	\$ 176,474,400	\$ 40,243,720	\$72,541,950	\$ 47,839,650	\$ 3,690,000	\$ 340,789,720

(1) Share ratio changes from 80% Federal/20% State and Local to 75% Federal/25% State And Local.

PC-(DUMP) .18
1/22/85

RTD METRO RAIL PROJECT
OPEN PROFESSIONAL SERVICES CONTRACTS

2/28/85

<u>AUDIT #</u>	<u>CONTRACT</u>	<u>\$</u> <u>BUDGET</u>
I. Transit Facilities		
3509	Westec	15,000
2284-5	Lindvall Richter (Geotech. II)	480,900
3138	City of Los Angeles (Master Agreement)	725,000
3172	Pacific Bell	156,000
3301	CALTRANS	2,784,213
3237	Western Union Telegraph	60,000
3351	John Gordon	20,000
3320	Julia Brown	20,000
3323	Alan Sieorty	20,000
3464-A	Dept. of Water & Power - Water Section	350,000
3173-A	Dept. of Water & Power - Power Section	365,000
2160-6	Barton Aschman	161,700
2611-3	County of Los Angeles (Staff Asst.)	229,300
2274	Carl Englund	14,153
3212	W.H. Patterson	7,000
3520	Southern California Gas Co.	45,000
3480	O'Brien & Kreitzberg	24,900
3535	Flood Control District	53,000
	Sub-Total	\$ 5,531,166
II. System Design & Analysis		
3394	MIDCOM	10,000
3282	SRI International	19,985
3090-1	Cons. Fire Prot. District	103,286
3136-1	Booz-Allen & Hamilton	1,499,031
3371	COMMUNICOM	7,500
2218	Commission de Transport	5,000
2218	Walter Woods	1,020
	Sub-Total	\$ 1,645,822

RTD METRO RAIL PROJECT
OPEN PROFESSIONAL SERVICES CONTRACTS
(CONT.)

2/28/85

<u>AUDIT #</u>	<u>CONTRACT</u>	<u>\$</u> <u>BUDGET</u>
III. Planning		
3010-1	Community Redevelopment Agency	542,000
3137	City of Los Angeles (Station Dev.)	573,000
3254-2	Schimpeler - Corradino	927,213
2900-2	Schimpeler - Corradino	151,000
3328	CMB Communications	<u>2,500</u>
	Sub-Total	\$ 2,195,713
IV. Real Estate		
A. Yard & Shops Acquisition		
3032	Flavell & Assoc.	50,000
3033	Lea Associates	50,000
3102-1	Robert Swanson	22,500
3484	Robert Swanson	<u>2,750</u>
	Sub-Total	\$ 125,250
B. Other Real Estate		
3116	Chicago Title Insurance	50,000
3175	TICOR Title Insurance	75,000
3462	James Himes	8,750
3209	Arthur Anderson	1,550
3463	R.P. Laurain	9,900
3189-2	Joseph Gary	10,026
3523	Thomas Scalora	6,000
3241	Crockett	5,900
3242	Industrial Appraisal	7,925
3461	Leon Beliansky	7,950
3485	Woeber	4,050
3495	Jack Jue	3,000
3522	Carl Lau	<u>1,000</u>
	Sub-Total	\$ 191,051

RTD METRO RAIL PROJECT
 OPEN PROFESSIONAL SERVICES CONTRACTS
 (CONT.)

2/28/85

<u>AUDIT #</u>	<u>CONTRACT</u>	<u>BUDGET</u>
V. Legal		
2910-4	NBMEW & M	115,000
2943	O'Melveny & Myers	<u>100,000</u>
	Sub-Total	\$ 215,000
VI. Misc. Contracts		
3065	David Ashley	7,000
3030	Dillon Read & Co.	24,900
2499	Barton-Aschman	4,121
2430	Bureau de Transit Metro	2,187
2940	Steve Mertz (U.S.C.)	5,000
2276	U.S.C.	4,320
3506	California Newspaper Service Bureau	<u>105,000</u>
	Sub-Total	\$ 152,528
VII. Owner Controlled Insurance		
3504	James/Kadowski/Ortiz/Rideau	894,154
VIII. General Consultant		
2967	MRTC	101,145,804
	Sub-Total	\$ 101,145,804
VIII. Construction Management		
3369	PDCD	6,589,849
	Sub-Total	<u>\$ 6,589,849</u>
TOTAL OPEN PROFESSIONAL SERVICES CONTRACTS		\$ 118,686,337

SECTION II: CONTRACT EVALUATIONS

MTA LIBRARY

A. COST

EXPLANATION OF TERMS

Cost Performance Index (C.P.I.)	<ul style="list-style-type: none"> - Used to indicate the actual cost of each planned dollar of work accomplished. <li style="margin-left: 100px;">= $\frac{\text{Earned Costs}}{\text{Expenditures}}$
Cost Variance (C.V.)	<ul style="list-style-type: none"> - The difference between the actual dollars spent and the actual dollars earned. <li style="margin-left: 100px;">= Actual \$ Spent - Earned \$
Current Contract Cost Expended	<ul style="list-style-type: none"> - The dollar value on which contractual agreement has been reached.
Forecast at Completion	<ul style="list-style-type: none"> - The entry into official RTD accounting ledgers of the use of resources.
Independent Estimate at Completion (I.E.A.C.)	<ul style="list-style-type: none"> - An estimate and prediction of the total cost of the contract. - A calculated EAC based on the current rate of cost performance. <li style="margin-left: 100px;">= $\frac{\text{Forecast at Completion}}{\text{C.P.I.}}$
Negotiated Contract Changes	<ul style="list-style-type: none"> - The cumulative cost applicable to definitized contract changes which have occurred since the beginning of the contract.
Original Contract Cost	<ul style="list-style-type: none"> - The dollar value negotiated in the original contract.
Pending Changes	<ul style="list-style-type: none"> - The estimated cost for contract changes that have yet to be negotiated or approved.
Percent Complete	<ul style="list-style-type: none"> - A comparison of the completion status to the current projection of total work.
Productivity	<ul style="list-style-type: none"> - A relative measure of labor efficiency compared to an established base. <li style="margin-left: 100px;">= $\frac{\% \text{ complete} \times \text{Total MH forecast}}{\text{MH's spent}}$

To Complete Performance Index

(T.C.P.I.) - Basically a comparison of the work remaining to the amount of money remaining. The results of this formula indicate the cost efficiency the contractor must perform to meet the Forecast at Completion.

$$= \frac{\text{Forecast at Completion} - \text{Earned Costs}}{\text{Forecast at Completion} - \text{Actual \$ Spent}}$$

Variance

- Any actual or potential deviation from a budget or plan.

OVERALL COST ASSESSMENT

This month's Cost/Schedule Status Report analyzes and compares reported actuals against the latest MRTC forecasts as shown in the monthly progress report. Actual progress is running behind forecasted progress on MOS-1 contracts. For details concerning individual contracts, refer to the Section Designer Evaluation Summary in this report.

Some concerns with this month's report are as follows:

- o Forecasted percent complete figures are not reported this month on contract A165 and A195.
- o Stop work orders were issued to some of the MOS-1 Facilities Design Contracts but the report did not address the total cost of the contracts (i.e., the work being performed by the MRTC).

METRO RAIL PROJECT
SECTION DESIGN EVALUATION SUMMARY
FEBRUARY 1985

UNIT NO.	DESCRIPTION	TOTAL % COMPLETE		CURRENT INCRE- MENTAL PROGRESS	PRODUCTIVITY BASED ON		ORIGINAL/INC. NEGOTIATED CONTRACT AMOUNT	FORECAST AT COMPLETION		TO COMPLETE AVERAGE EFFICIENCY **
		F'CAST	ACTUAL		MHRS	\$\$		MRTC	TSD PROJECTED	
MOS-1 CONTRACTS:										
A100	YARD AND SHOPS	100%	97%	1%	97%	97%	\$ 4,080,878	\$ 6,788,000	\$ 6,788,000	N/A
A135	UNION STATION	97%	96%	1%	96%	96%	2,897,000	4,200,000	4,375,000	N/A
A140	CIVIC CENTER/5TH & HILL/LINE	80%	76%	10%	110%	120%	6,203,707	6,876,000	5,729,000	66%
A165	7TH & FLOWER	N/A	97%	2%	97%	97%	2,129,587	3,945,000	4,067,000	N/A
A170	WILSHIRE/ALVARADO + LINE	98%	96%	2%	96%	96%	3,119,430	4,391,000	4,574,000	N/A
SUBTOTAL MOS-1 CONTRACTS:							\$ 18,430,602	\$ 26,200,000	\$ 25,533,000	
INCREMENT I CONTRACTS:										
A195	WILSHIRE/VERMONT	N/A	100%	5%	103%	102%	\$ 2,203,000	\$ 2,203,000	\$ 2,160,000	N/A
A220	WILSHIRE/NORMANDIE & WILSHIRE/WESTERN + LINE	79%	80%	9%	101%	105%	3,878,000	3,878,000	3,693,000	85%
A240	WILSHIRE/CRENSHAW	93%	92%	1%	101%	101%	2,273,000	2,109,000	2,088,000	87%
A245	WILSHIRE/LA BREA	94%	92%	N/A	100%	100%	1,740,000	1,719,000	1,719,000	117%
A250	WILSHIRE/FAIRFAX + LINE	87%	82%	3%	96%	94%	2,901,000	2,901,000	3,086,000	137%
A275	FAIRFAX/BEVERLY	96%	98%	3%	99%	97%	2,299,000	2,212,000	2,280,000	N/A
A310	FAIRFAX/SANTA MONICA & LA BREA/SUNSET + LINE	72%	78%	11%	103%	105%	2,935,000	2,867,000	2,730,000	87%
A350	HOLLYWOOD/CAHUENGA	84%	79%	4%	80%	94%	1,755,000	1,755,000	1,867,000	135%
A410	LINE FROM HOLLYWOOD/CAHUENGA TO UNIVERSAL CITY	100%	100%	N/A	95%	95%	2,313,000	2,459,000	2,459,000	N/A
A415	HOLLYWOOD BOWL	40%	40%	0	N/A	N/A	810,000	810,000	810,000	N/A
A425	UNIVERSAL CITY	98%	98%	0	103%	103%	1,705,000	1,689,000	1,640,000	40%
A430	LINE FROM UNIVERSAL CITY TO NORTH HOLLYWOOD	97%	96%	2%	100%	103%	1,518,000	1,518,000	1,508,000	56%
A445	NORTH HOLLYWOOD	83%	N/A	N/A	N/A	N/A	1,528,000	1,553,000	N/A	N/A
SUBTOTAL INCREMENT I CONTRACTS:							\$ 27,858,000	\$ 27,673,000	\$ 26,040,000*	
SUBTOTAL MOS-1 CONTRACTS:							\$ 18,430,602	\$ 26,200,000	\$ 25,533,000	
GRAND TOTAL:							\$ 46,288,602	\$ 53,873,000	\$ 51,573,000*	

* EXCLUDES TSD PROJECTIONS FOR CONTRACT A445

** FOR CONTRACTS TO BE COMPLETED AT MRTC'S FORECAST

NOTE: INCREMENT I DATA HAS BEEN CONVERTED TO SHOW PROGRESS AS A PERCENTAGE OF ONLY THE INCREMENT I BASE - NOT AS A PERCENTAGE OF THE TOTAL CONTRACT AS DEPICTED IN THE MRTC PROGRESS REPORT

METRO RAIL PROJECT
SYSTEMS DESIGN EVALUATION SUMMARY
FEBRUARY 1985

UNIT NO.	DESCRIPTION	TOTAL % COMPLETE		CURRENT INCREMENTAL PROGRESS	PRODUCTIVITY BASED ON		MRTC PLAN	FORECAST AT COMPLETION		TO COMPLETE AVERAGE EFFICIENCY *	
		F'CAST	ACTUAL		MHRS	\$\$		MRTC	TSD PROJECTED		
SYSTEMS CONTRACTS:											
A612											
A615											
A630	TRACTION POWER PROCUREMENT	95%	95%	2%	103%	103%	\$ 919,000	\$ 942,000	\$ 914,600	68%	
A620	AUTOMATIC TRAIN CONTROL	69%	68%	4%	100%	101%	849,000	888,000	879,200	98%	
A631	TRACTION POWER INSTALLATION	35%	35%	5%	109%	110%	262,000	526,000	478,200	95%	
A640	COMMUNICATIONS	60%	60%	4%	93%	95%	1,045,000	1,362,000	1,433,700	109%	
A650	PASSENGER VEHICLES	85%	82%	5%	100%	102%	764,000	898,000	880,400	93%	
A660	FARE COLLECTION	63%	59%	5%	97%	98%	360,000	507,000	517,300	103%	
A671											
-679	AUXILIARY VEHICLES	N/A	N/A	N/A	N/A	N/A	213,900	TBD	N/A	N/A	
TOTAL SYSTEMS CONTRACTS:							\$ 4,412,900	\$ 5,123,000*	\$ 5,103,400		

* EXCLUDES PROJECTIONS FOR DESIGN UNITS A671-A679
** FOR CONTRACTS TO BE COMPLETED AT MRTC'S FORECAST

A LIBRARY

COST PERFORMANCE REPORT
SECTION DESIGNER

CONTRACT NO. : A100, Yard & Shops
 CONTRACTOR : DMJM/PBQD
 REPORT PERIOD : February 1985

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) ESTIMATE TO COMPLETE (5) - (6)
\$ 4,080,878	\$ 479,017	\$ 4,559,895	\$ 2,228,105	\$ 6,788,000	\$ 6,788,000	\$ 0

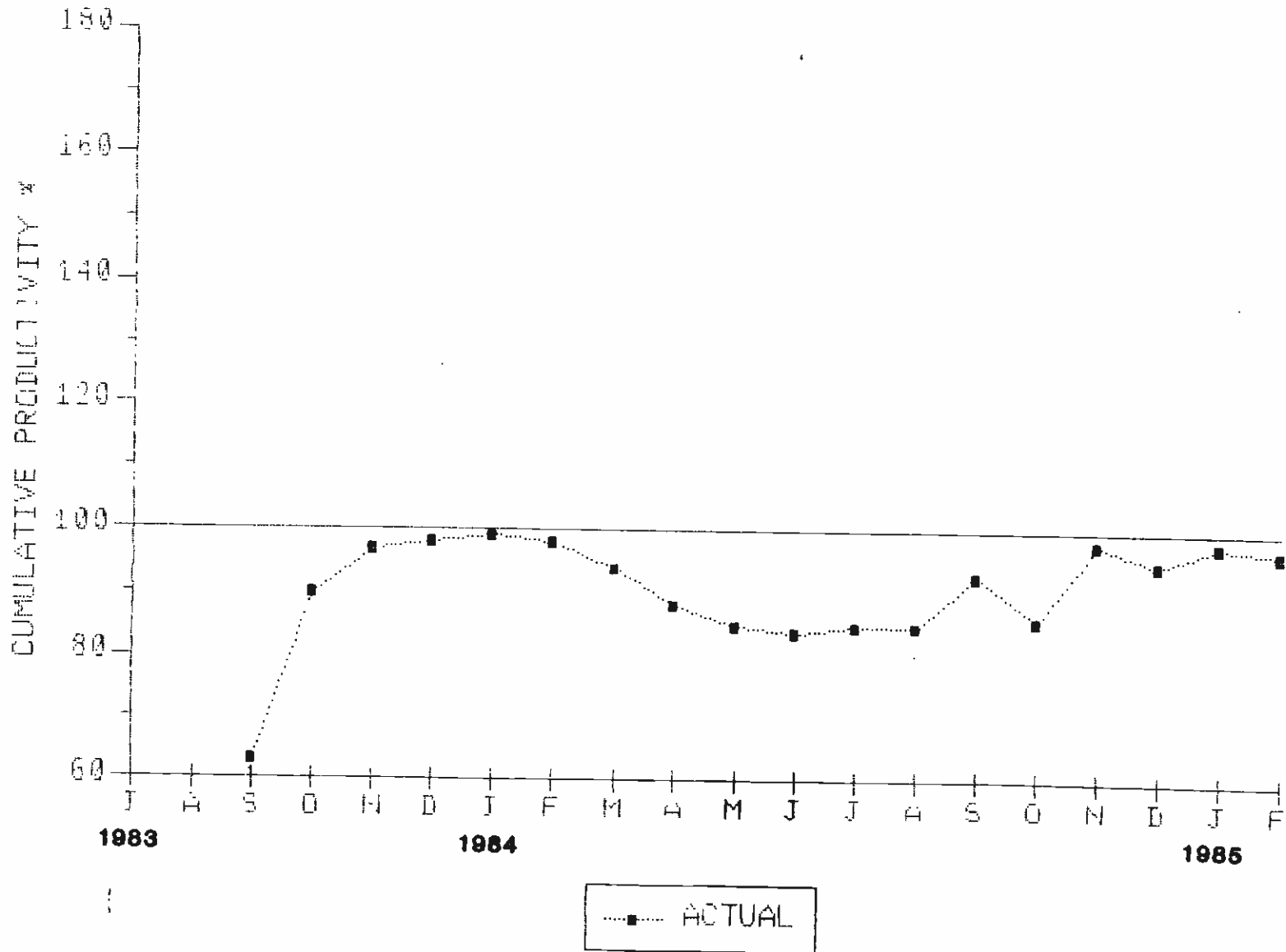
CUMULATIVE TO DATE
(BASED ON MRTC MONTHLY PROGRESS REPORT DATA)

PERCENT COMPLETE			MANHOURLY PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
100%	100%	97%	97%	\$.97	\$203,640	N/A %	\$ 6,788,000

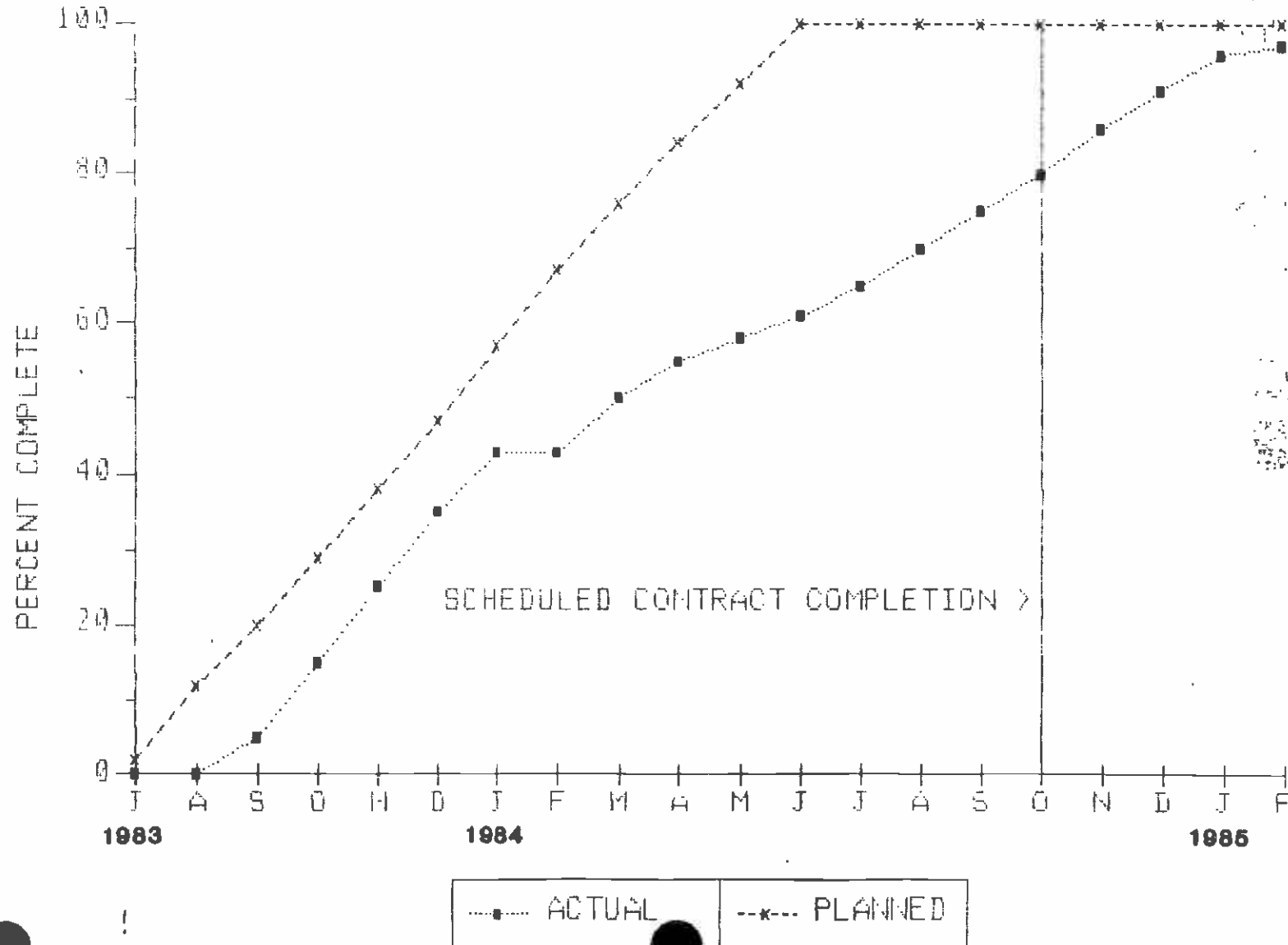
CONCLUSIONS AND OBSERVATIONS:

Consultant turned over all the design documents on the prearranged date of 2/28/85. The MRTC will complete the remaining tasks, which are approximately 3% of the total project. The consultant overran the original contract cost by \$2,707,000 or 66%.

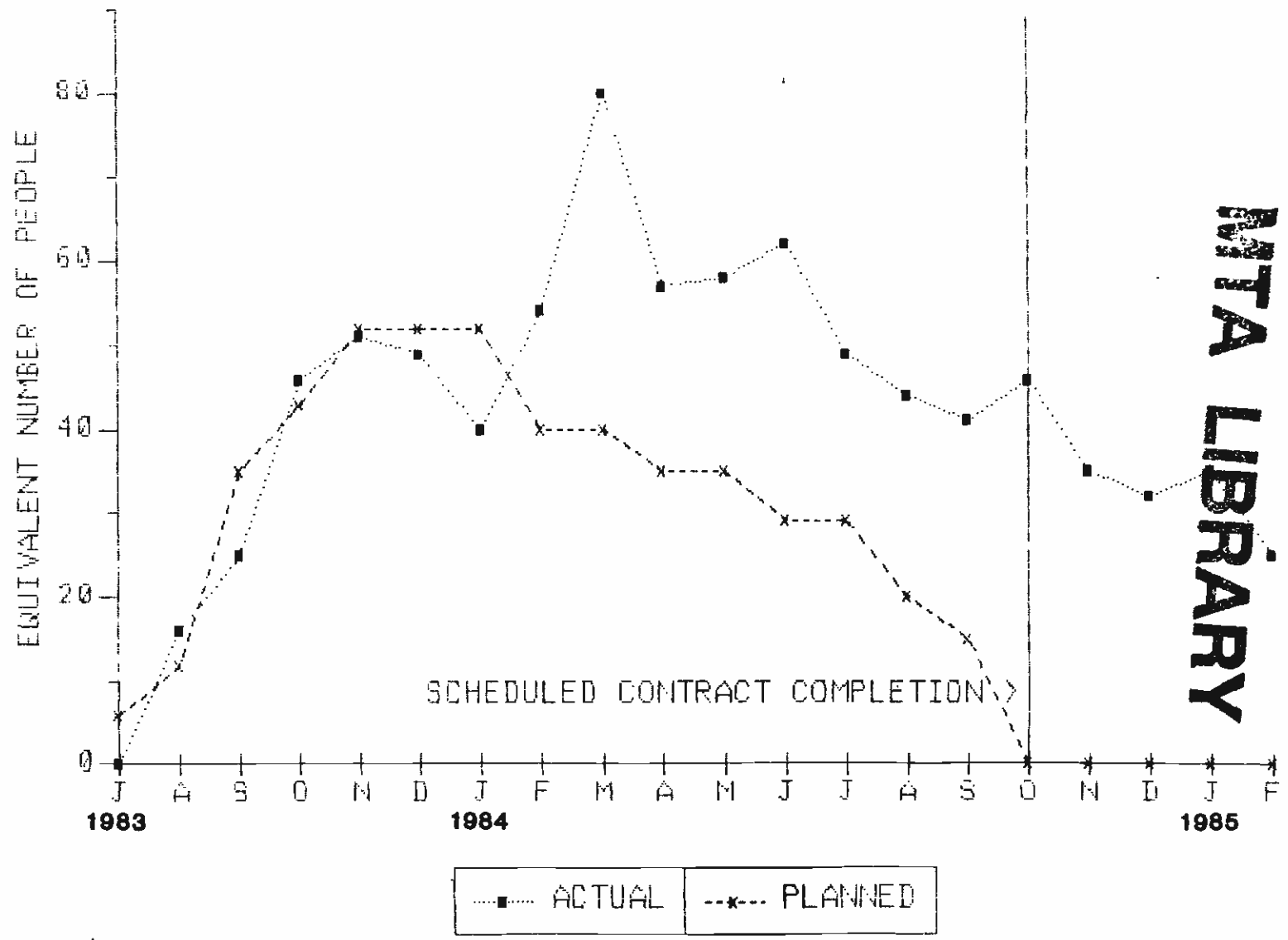
PTD METRO RAIL PROJECT
CONTRACT A100 - MAIN YARD AND SHOPS
SECTION DESIGNER: DNJM/PBDD
FEBRUARY 1985



RTD METRO RAIL PROJECT
 CONTRACT #100 - MAIN YARD AND SHOPS
 SECTION DESIGNER: DMJM/PBQD
 FEBRUARY 1985



PTD METRO RAIL PROJECT
 CONTRACT A100 - MAIN YARD AND SHOPS
 SECTION DESIGNER: DMJM/PBQD
 FEBRUARY 1985



MTA LIBRARY

COST PERFORMANCE REPORT
SECTION DESIGNER

CONTRACT NO. : A135, Union Station
 CONTRACTOR : Harry Weese & Associates
 REPORT PERIOD : February 1985

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) ESTIMATE TO COMPLETE (5) - (6)
\$ 2,897,000	\$ 457,997	\$ 3,354,997	\$ 845,003	\$ 4,200,000	\$ 4,171,000	\$ 29,000

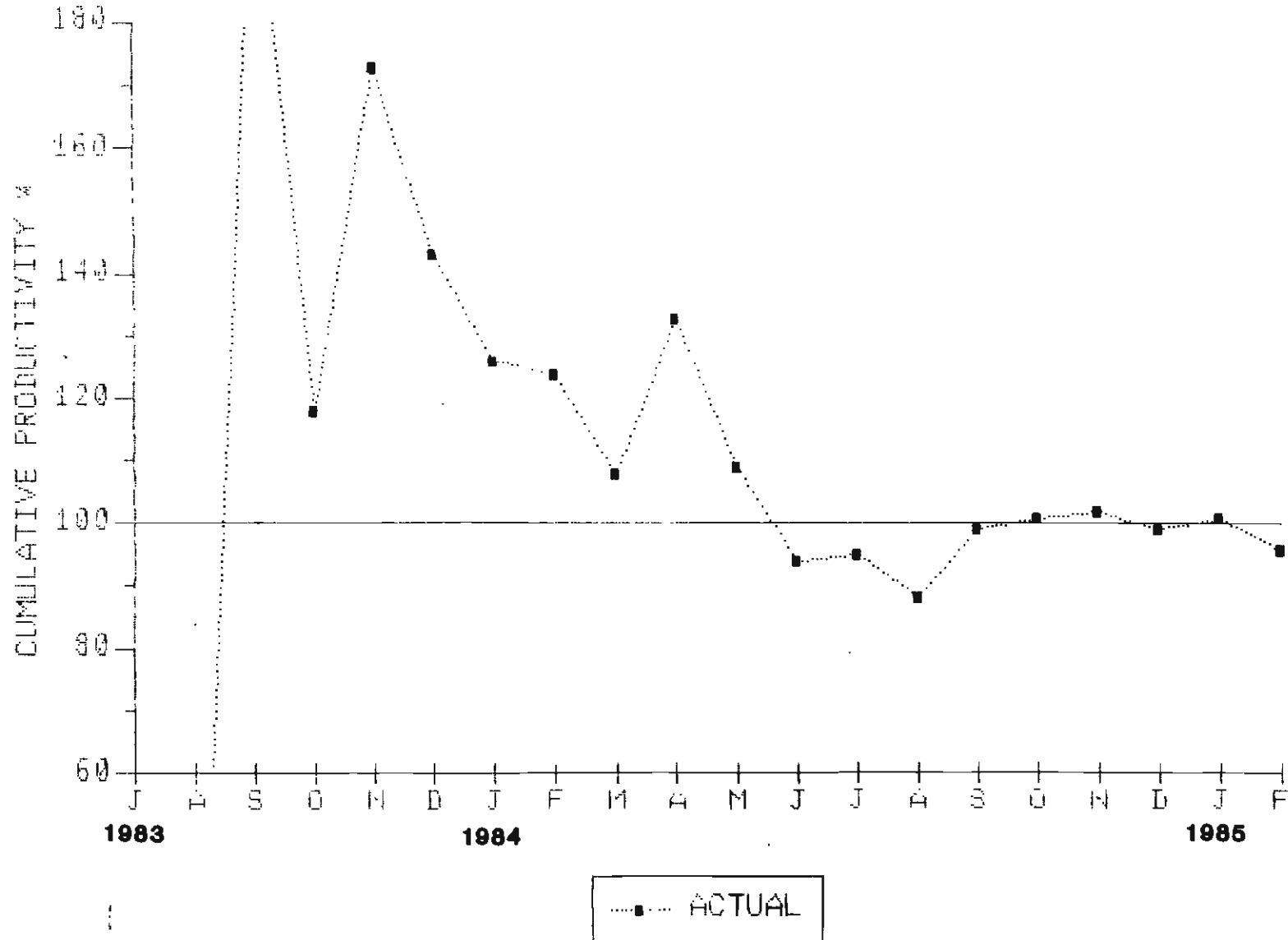
CUMULATIVE TO DATE
(BASED ON MRTC MONTHLY PROGRESS REPORT DATA)

PERCENT COMPLETE			MANHOURLY PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C
PLANNED	FORECAST	ACTUAL					
100%	97%	96%	96%	\$.96	\$ 166,800	N/A %	\$ 4,375,000

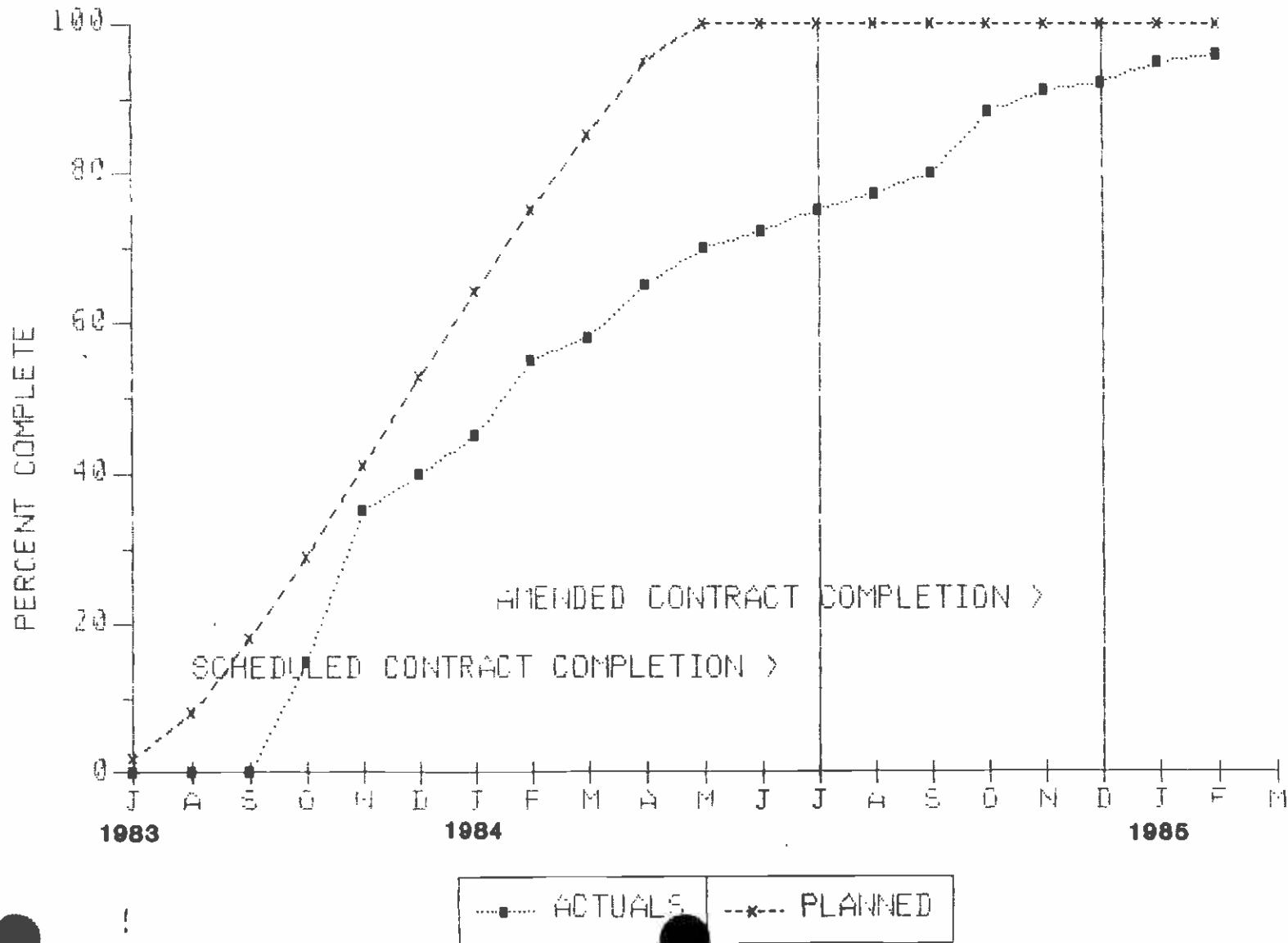
CONCLUSIONS AND OBSERVATIONS:

Harry Weese and Associates was issued a Stop Work Order as of February 28, 1985; TAMS and the MRTC will complete all remaining work by April 1 at "no additional cost to the District" — a misleading phrase, as all work accomplished by the MRTC is charged to the District; this phrase should perhaps be restated as "no additional charge to the A135 contract." There will be negotiations for closing costs and some fee.

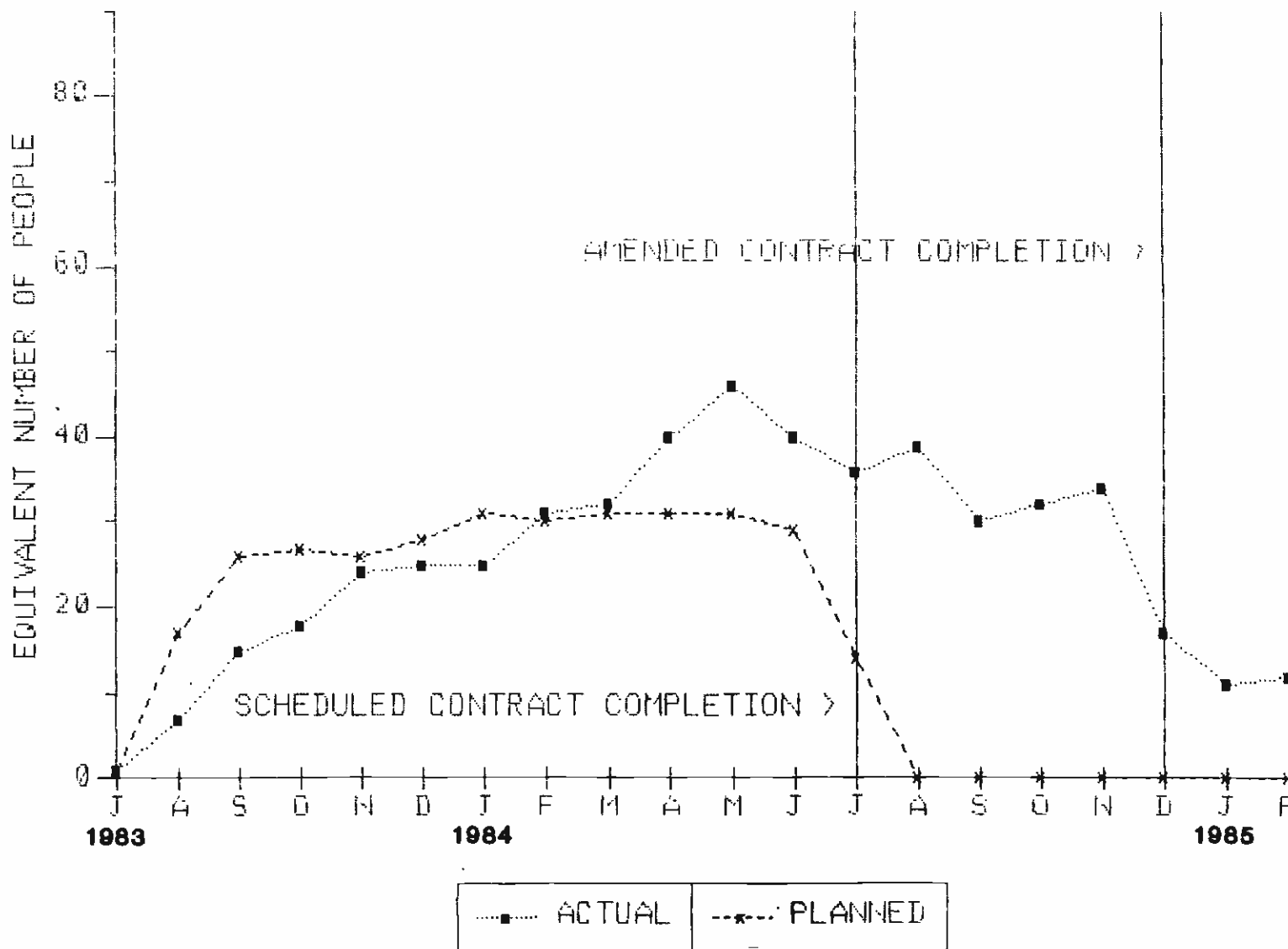
RTD METRO RAIL PROJECT
CONTRACT A135 - UNION STATION
SECTION DESIGNER: HARRY WEESE AND ASSOC.
FEBRUARY 1985



RTD METRO RAIL PROJECT
 CONTRACT A135 - UNION STATION
 SECTION DESIGNER: HARRY WEESE & ASSOC.
 FEBRUARY 1985



RTD METRO RAIL PROJECT
 CONTRACT A135 - UNION STATION
 SECTION DESIGNER: HARRY WEESE & ASSOC.
 FEBRUARY 1985



MTA LIBRARY

COST PERFORMANCE REPORT
SECTION DESIGNER

CONTRACT NO. : A140, Civic Center/5th & Hill Stations + Line
 CONTRACTOR : Delon Hampton & Associates
 REPORT PERIOD : February 1985

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) ESTIMATE TO COMPLETE (5) - (6)
\$ 6,203,707	\$ 6,732	\$ 6,210,439	\$ 665,314	\$ 6,875,753	\$ 4,366,000	\$2,509,753

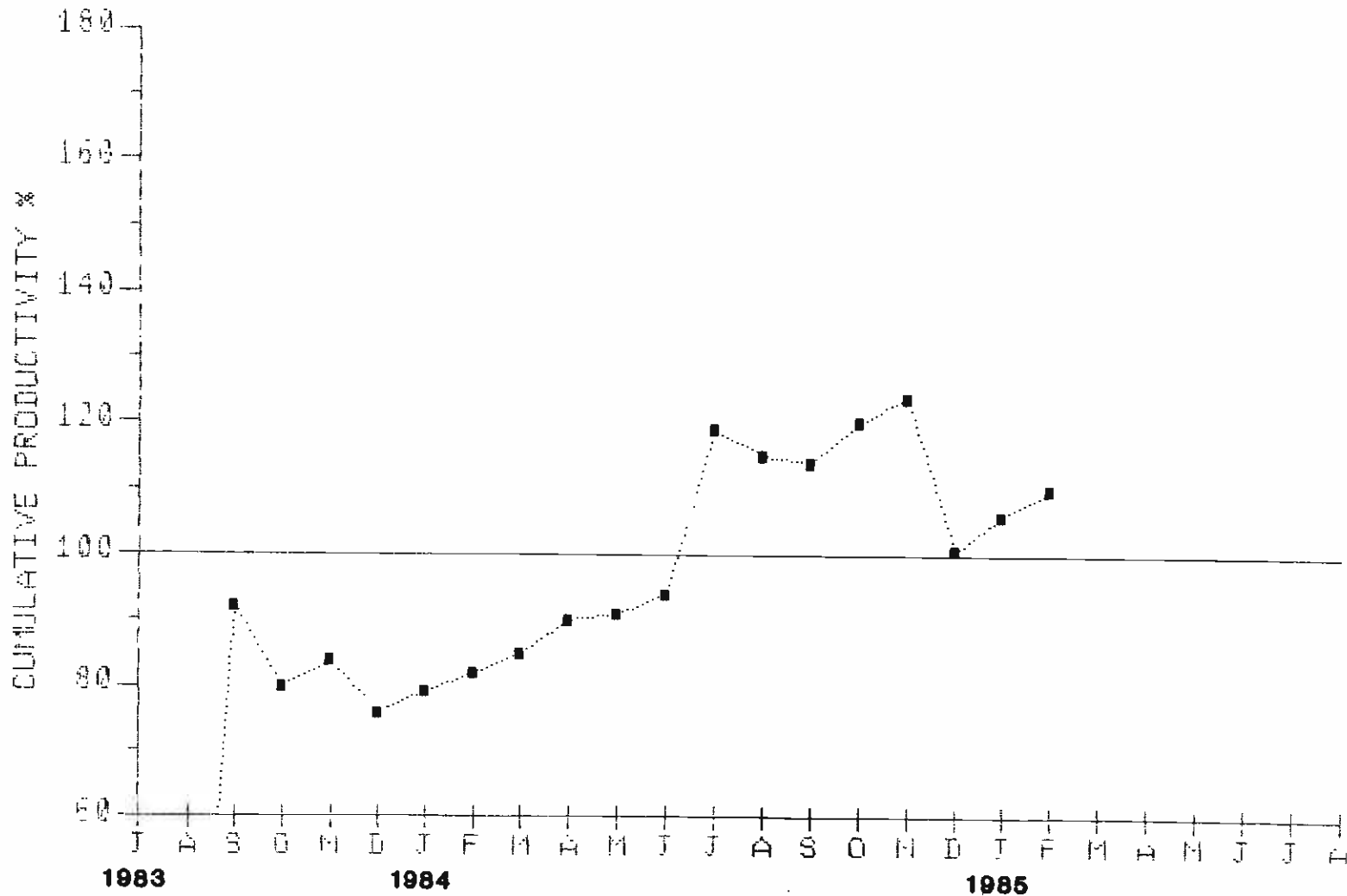
CUMULATIVE TO DATE
(BASED ON MRTC MONTHLY PROGRESS REPORT DATA)

PERCENT COMPLETE			MANHOUR PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
87%	80%	76%	110%	\$ 1.20	\$ (859,000)	66%	\$ 5,729,167

CONCLUSIONS AND OBSERVATIONS:

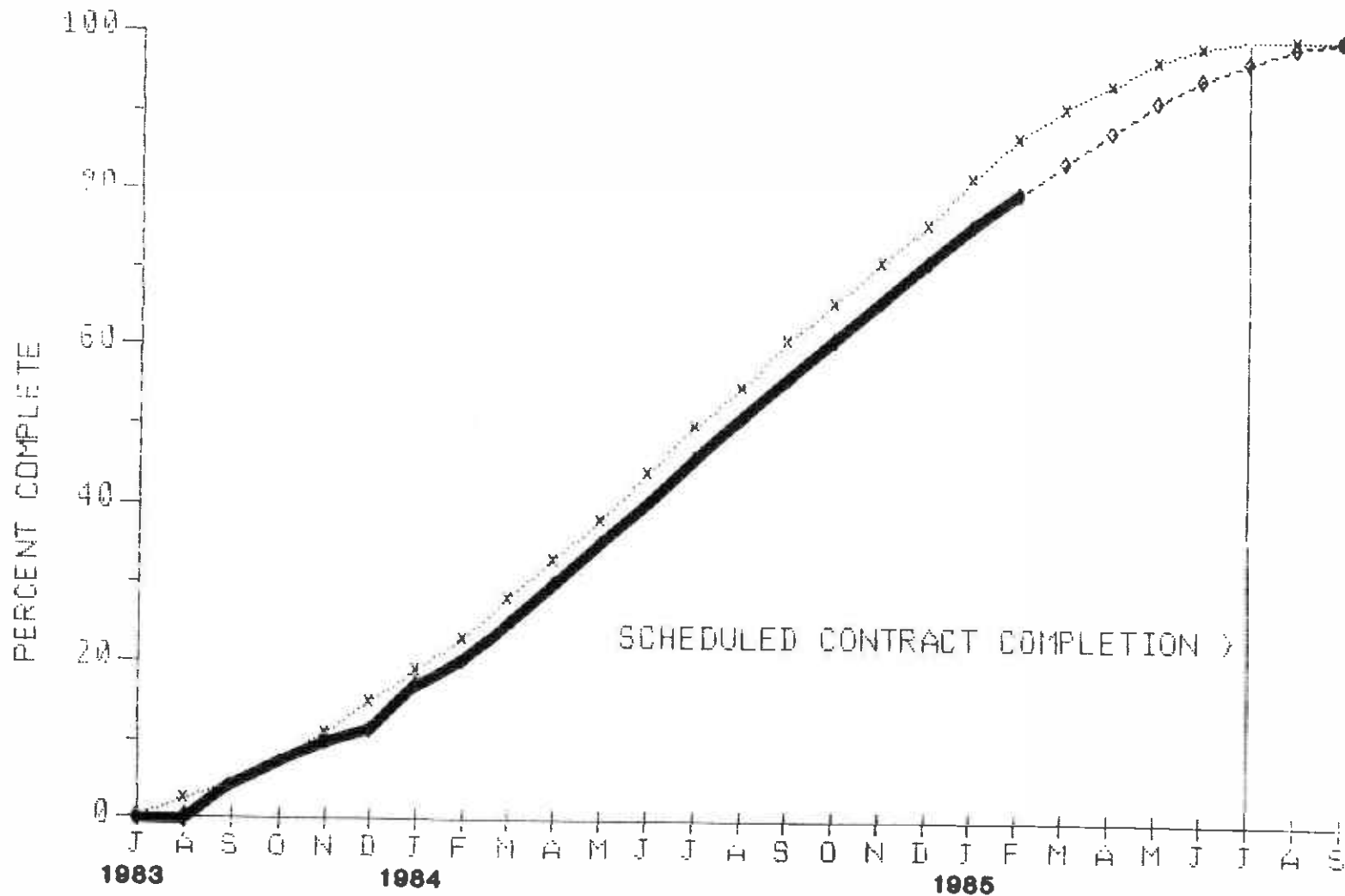
This contract continues to proceed satisfactorily, decreasing the gap between forecasted and actual percent complete to four points from last month's ten points. If the Section Designer's high productivity and C.P.I. continue, the above calculations indicate a cost to complete below the original contract cost.

RTD METRO RAIL PROJECT
 CONTRACT A140 - CIVIC CENTER/FIFTH & HILL
 SECTION DESIGNER: DELON HAMPTON & ASSOC.
 FEBRUARY 1985

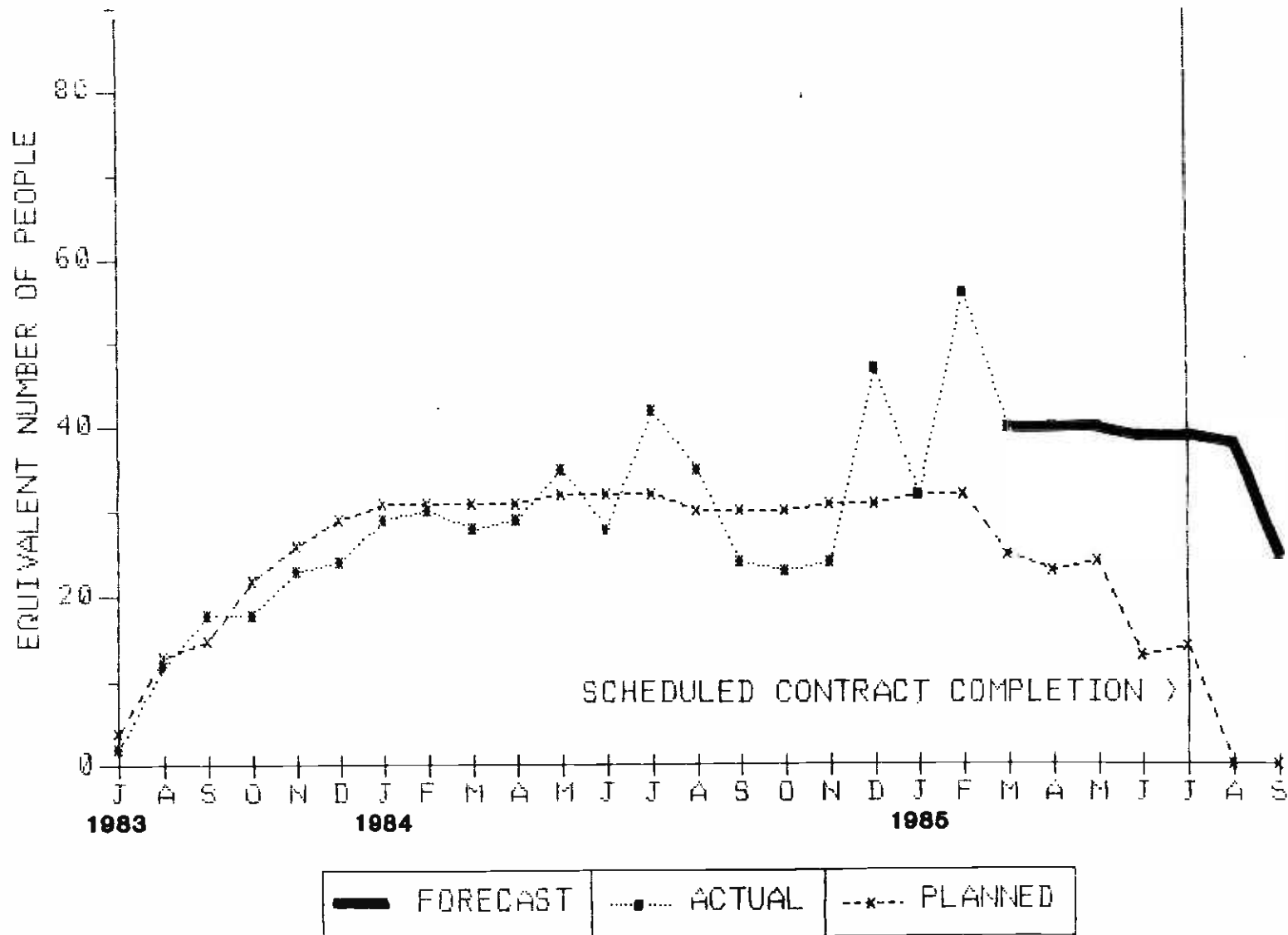


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RTD METRO RAIL PROJECT
 CONTRACT #140 - CIVIC CENTER/FIFTH & HILL
 DESIGNER: DELON HAMPTON & ASSOC.
 FEBRUARY 1985



RTD METRO RAIL PROJECT
 CONTRACT A140 - CIVIC CENTER/FIFTH & HILL
 SECTION DESIGNER: DELON HAMPTON & ASSOC.
 FEBRUARY 1985



COST PERFORMANCE REPORT
SECTION DESIGNER

CONTRACT NO. : A165, 7th/Flower Station
 CONTRACTOR : Gannett Fleming/Dworsky
 REPORT PERIOD : February 1985

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) ESTIMATE TO COMPLETE (5) - (6)
\$ 2,129,587	\$ 824,675	\$ 2,954,262	\$ 990,738	\$ 3,945,000	\$ 3,945,000	\$ 0

CUMULATIVE TO DATE
(BASED ON MRTC MONTHLY PROGRESS REPORT DATA)

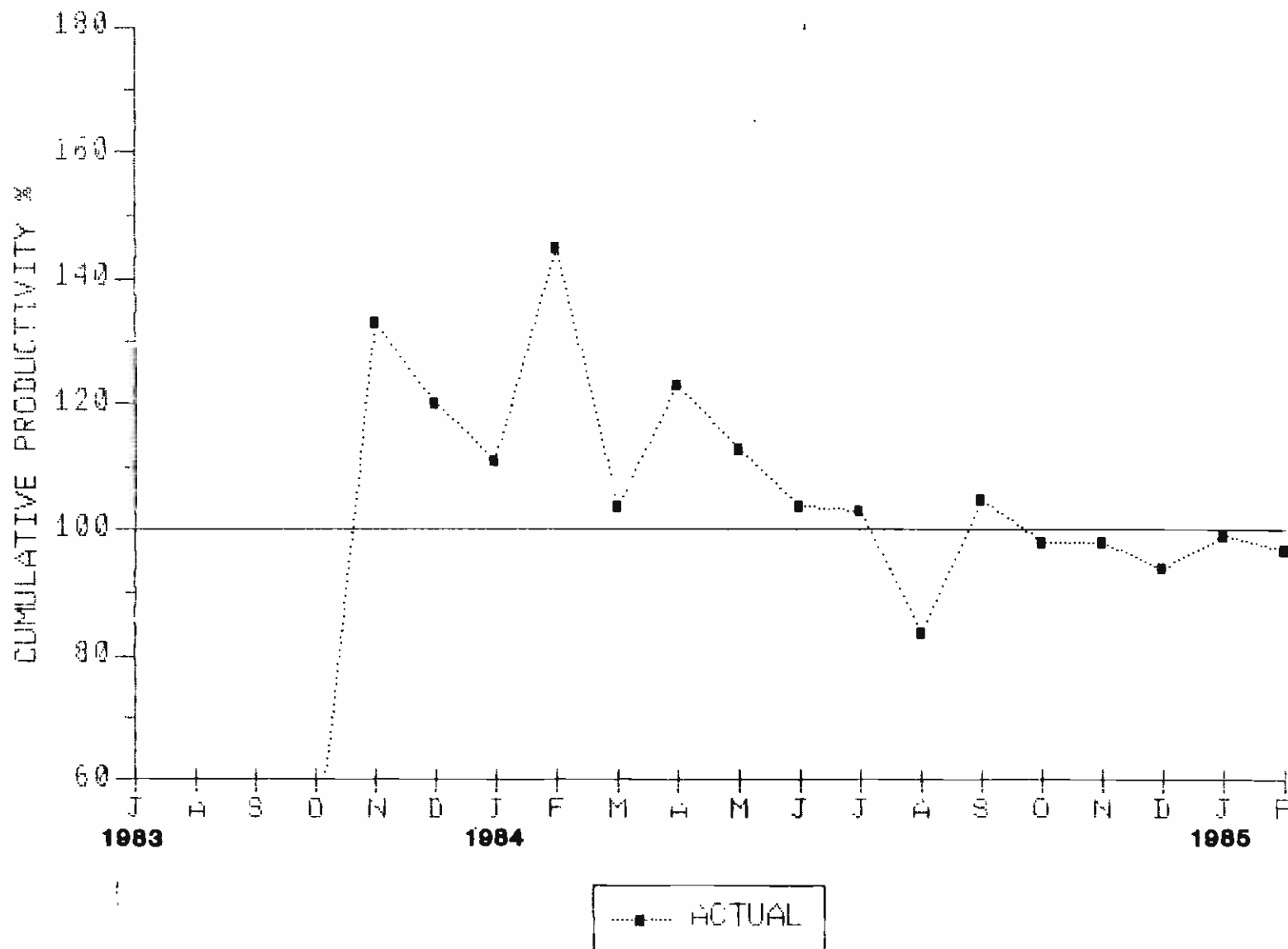
PERCENT COMPLETE			MANHOUR PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
100%	N/A	97%	97%	\$.97	\$ 119,000	N/A	\$4,067,010

CONCLUSIONS AND OBSERVATIONS:

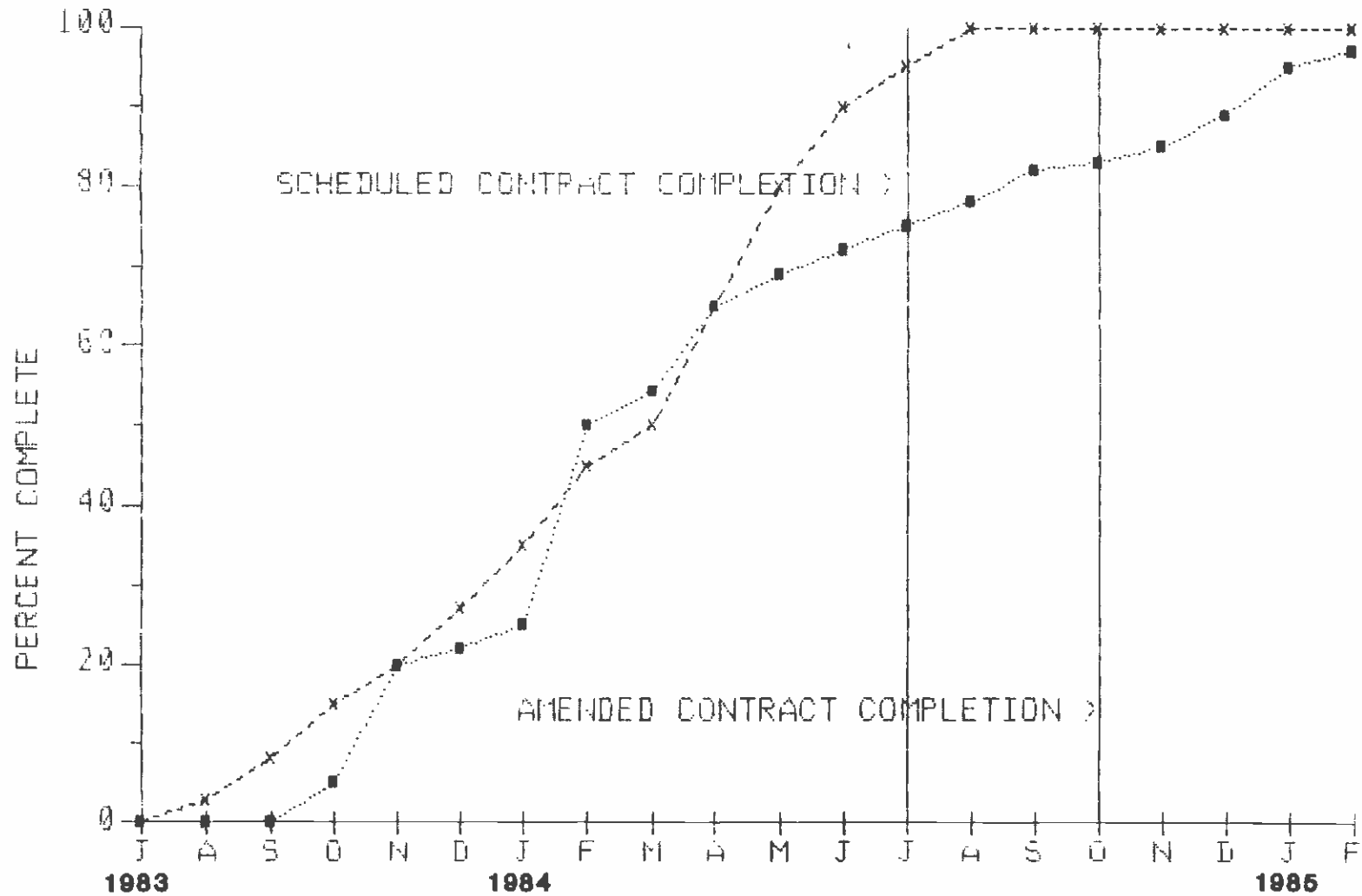
Although the MRTC Progress Report shows no forecast for March, the Section Designer will complete his work in mid-March. Some items for all MOS-1 stations will remain to be completed by the MRTC.

The MRTC Estimate at Completion was increased this month to equal the actual cumulative expenditures. Due to March expenditures, the District feels this new estimate will be overrun by \$122,000.

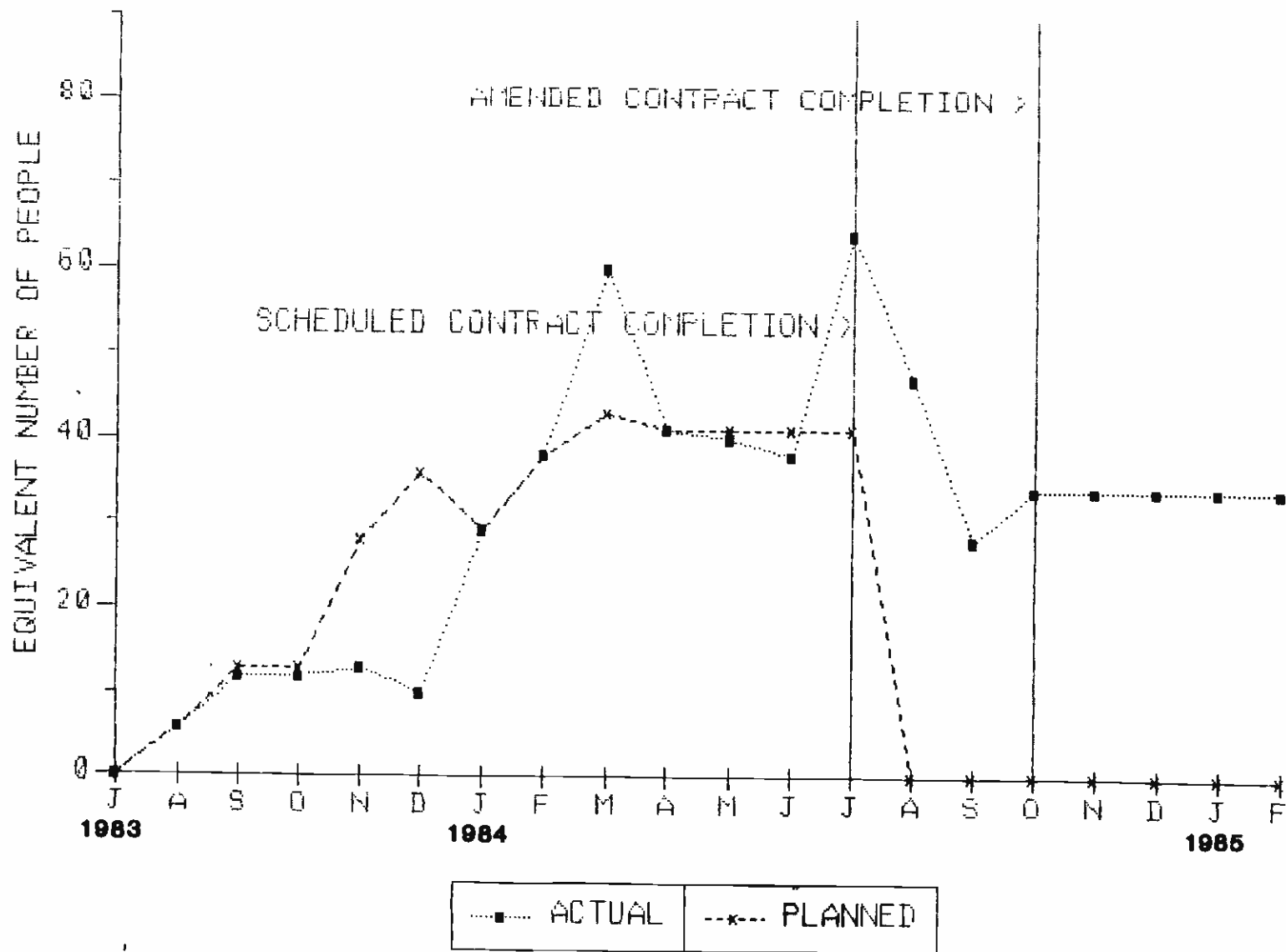
RTD METRO RAIL PROJECT
CONTRACT A165 - SEVENTH & FLOWER
SECTION DESIGNER: GANNETT FLEMING/DWORSKY
FEBRUARY 1985



RTD METRO RAIL PROJECT
 CONTRACT A165 - SEVENTH & FLOWER
 SECTION DESIGNER: GANNETT FLEMING/DWORSKY
 FEBRUARY 1985



RTD METRO RAIL PROJECT
 CONTRACT #165 - SEVENTH & FLOWER
 SECTION DESIGNER: GANNETT FLEMING/DWORSKY
 FEBRUARY 1985



**COST PERFORMANCE REPORT
SECTION DESIGNER**

CONTRACT NO. : A170, Wilshire/Alvarado Station + Line
 CONTRACTOR : Sverdrup Corporation
 REPORT PERIOD : February 1985

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) ESTIMATE TO COMPLETE (5) - (6)
\$ 3,119,430	\$ 566,637	\$ 3,686,067	\$ 705,283	\$ 4,391,350	\$ 4,318,000	\$ 73,350

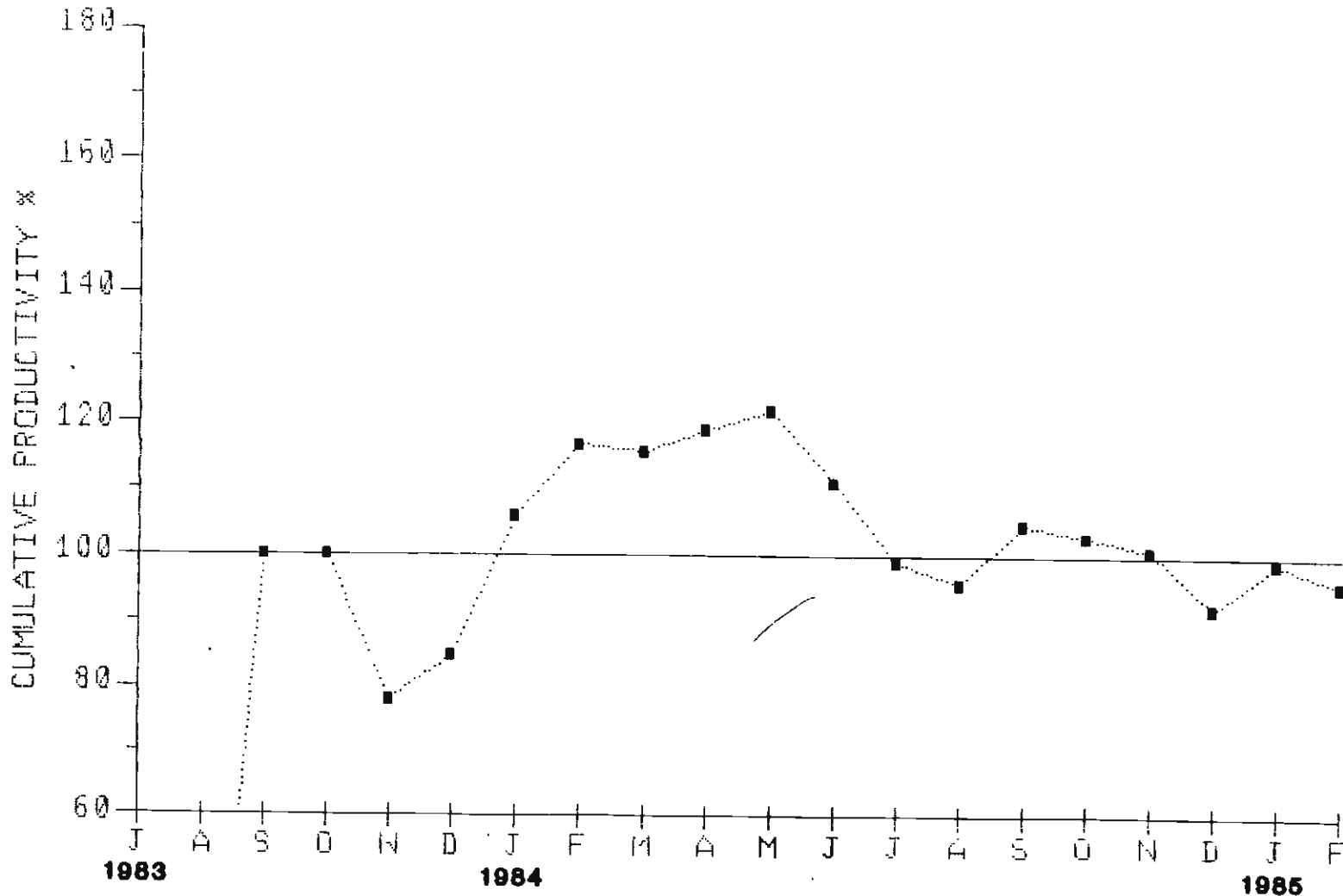
CUMULATIVE TO DATE
(BASED ON MRTC MONTHLY PROGRESS REPORT DATA)

PERCENT COMPLETE			MANHOUR PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
100%	98%	96%	96%	\$.96	\$ 172,720	N/A %	\$ 4,574,323

CONCLUSIONS AND OBSERVATIONS:

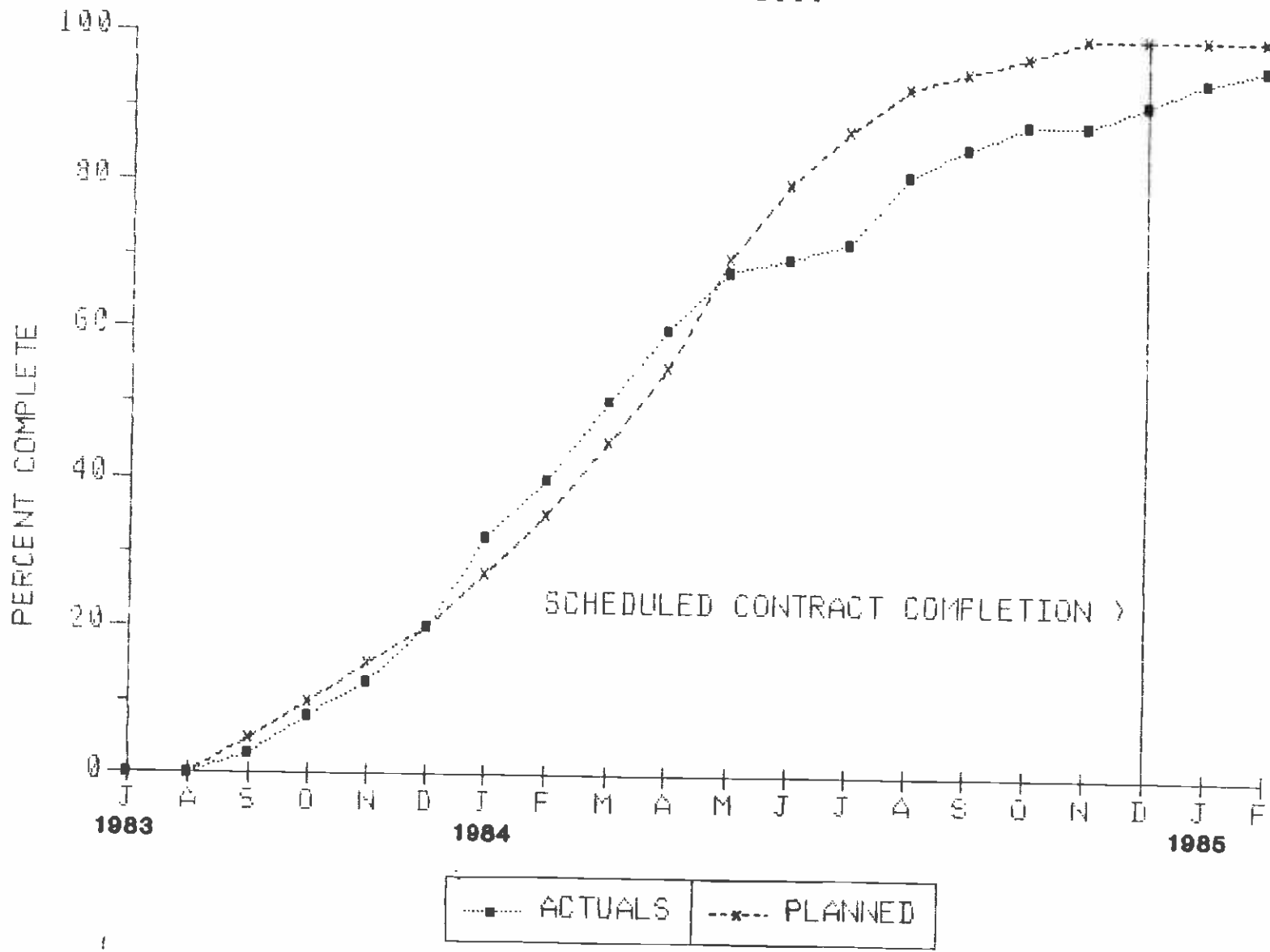
A Stop Work Order was issued to the consultant effective 3/8/85; 100% complete signed and sealed drawings were submitted 3/12/85. The District will have to make the decision on how this contract will be completed.

RTD METRO RAIL PROJECT
 CONTRACT A170 - WILSHIRE/ALVARADO
 SECTION DESIGNER: SVERDRUP CORP.
 FEBRUARY 1985

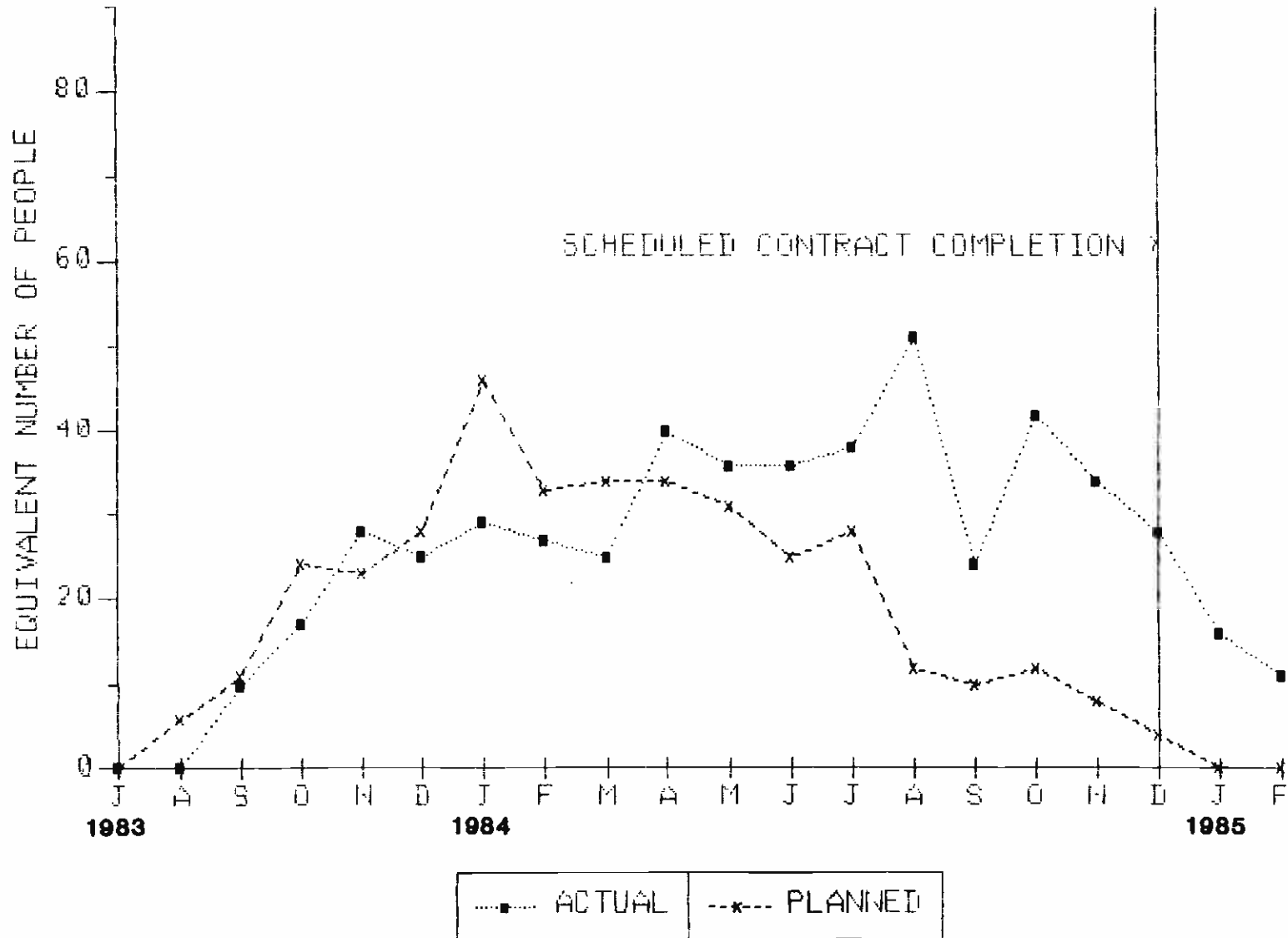


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RTD METRO RAIL PROJECT
 CONTRACT A170 - WILSHIRE/ALVARADO
 SECTION DESIGNER: SVERDRUP CORP.
 FEBRUARY 1985



RTD METRO RAIL PROJECT
 CONTRACT #170 - WILSHIRE/ALVARADO
 SECTION DESIGNER: SVERDRUP CORP.
 FEBRUARY 1985



COST PERFORMANCE REPORT
SYSTEMS DESIGNER

CONTRACT NO. : A612, A615, A630 - Traction Power Procurement
 CONTRACTOR : MRTC
 REPORT PERIOD : February 1985

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) ESTIMATE TO COMPLETE (5) - (6)
N/A	N/A	N/A	N/A	\$942,000	\$871,000	\$71,000

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOURLY PRODUCTIVITY	\$ C. P. I.	\$ COST VARIANCE	T. C. P. I.	\$ RTD I. E. A. C.
PLANNED	FORECAST	ACTUAL					
100%	95%	95%	103%	\$1.03	\$(23,000)	68%	\$914,563

CONCLUSIONS AND OBSERVATIONS:

This design unit is proceeding satisfactorily. Productivity, C.P.I., and the cost variance have all increased since January.

COST PERFORMANCE REPORT
SYSTEMS DESIGNER

CONTRACT NO. : A620, Automatic Train Control
 CONTRACTOR : MRTC
 REPORT PERIOD : February 1985

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) ESTIMATE TO COMPLETE (5) - (6)
N/A	N/A	N/A	N/A	\$888,000	\$599,000	\$289,000

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOURL PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
94%	69%	68%	100%	\$1.01	\$(4,840)	98%	\$879,208

CONCLUSIONS AND OBSERVATIONS:

This contract's cost and labor performance continues at a satisfactory level.

COST PERFORMANCE REPORT
SYSTEMS DESIGNER

CONTRACT NO. : A631, Traction Power Installation
 CONTRACTOR : MRTC
 REPORT PERIOD : February 1985

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) ESTIMATE TO COMPLETE (5) - (6)
N/A	N/A	N/A	N/A	\$526,000	\$167,000	\$359,000

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOUR PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
35%	35%	35%	109%	\$1.10	\$(17,100)	95%	\$478,182

CONCLUSIONS AND OBSERVATIONS:

The Traction Power Installation design unit continues to proceed satisfactorily.

COST PERFORMANCE REPORT
SYSTEMS DESIGNER

CONTRACT NO. : A640, Communications
 CONTRACTOR : MRTC
 REPORT PERIOD : February 1985

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) ESTIMATE TO COMPLETE (5) - (6)
N/A	N/A	N/A	N/A	\$1,362,000	\$863,000	\$499,000

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOURL PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
90%	60%	60%	93%	\$.95	\$45,800	109%	\$1,433,684

CONCLUSIONS AND OBSERVATIONS:

The contract is progressing satisfactorily with no problem areas identified at this time. Productivity is slightly low and if not increased will cause cost overruns.

COST PERFORMANCE REPORT
SYSTEMS DESIGNER

CONTRACT NO. : A650, Passenger Vehicles
 CONTRACTOR : MRTC
 REPORT PERIOD : February 1985

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) ESTIMATE TO COMPLETE (5) - (6)
N/A	N/A	N/A	N/A	\$898,000	\$725,000	\$173,000

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOUR PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
100%	85%	82%	100%	\$1.02	\$(11,360)	93%	\$880,392

CONCLUSIONS AND OBSERVATIONS:

The design unit continues to proceed satisfactorily.

COST PERFORMANCE REPORT
SYSTEMS DESIGNER

CONTRACT NO. : A660, Fare Collection
 CONTRACTOR : MRTC
 REPORT PERIOD : February 1985

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) ESTIMATE TO COMPLETE (5) - (6)
N/A	N/A	N/A	N/A	\$507,000	\$305,000	\$202,000

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOUR PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
65%	63%	59%	97%	\$.98	\$(5,870)	103%	\$517,347

CONCLUSIONS AND OBSERVATIONS:

This contract is progressing well with no problem areas identified at this time.

COST PERFORMANCE REPORT
SYSTEMS DESIGNER

CONTRACT NO. : A670 (A671-679), Auxiliary Vehicles
 CONTRACTOR : MRTC
 REPORT PERIOD : February 1985

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) ESTIMATE TO COMPLETE (5) - (6)
*	*	*	*	TBD	\$183,031	*

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOURLY PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
*	*	*	* %	*	*	*	*

CONCLUSIONS AND OBSERVATIONS:

* Insufficient information. Percent complete of 100%, as stated in the MRTC Progress Report, pertains only to the locomotive portion of the auxiliary vehicles design unit.

B. SCHEDULE

MOS-1 Critical Path

The Critical Path (MOS-1) defined in the Level III Project Schedule originates at Design Contract A135 (Union Station, Stage I) and continues to Engineering Review and Bid Documents of Contract A133 (Union Station Baggage Handling Facilities). This path follows A135 construction - from West end installation of soldier piles, to the East end form and pour roof slab. The path then shifts to Architectural Work, the auxiliary Power in Contract A136 (Union Station, Stage II) and continues through connecting/testing of Traction Power, Automatic Train Control, and Communications Equipment & Cabling. The path proceeds through Passenger Vehicles Tests, Automatic Train Control Dynamic Tests, and finally to Pre-Revenue Operations Testing.

METRO RAIL PROJECT
SCHEDULE EXCEPTION REPORT

Minimum Operable Segment-1 Design Contracts

CONTRACT: All2 Main Shop Building and Yard Service Area

AREA OF CONCERN: The completion of the Bid Documents has been delayed due to the incorporation of the Rail Control Center (RCC) which is on hold pending decision on the use of Westransco building. The completion of design is forecast for 7/1/85.

RECOMMENDATION: Decision on the use of Westransco building is needed.

CONTRACT: All4 Maintenance of Way Shop Building

AREA OF CONCERN: The completion of the Bid Documents has been delayed due to pending on the use of existing Santa Fe Trail building.

RECOMMENDATION: Decision on the use of existing Santa Fe Trail building is needed.

CONTRACT: All5 Yard Storage Area

AREA OF CONCERN: Completion of the Bid Documents has slipped to 7/1/85; slippage is due to the deletion of fencing, lighting and temporary construction access to the site.

RECOMMENDATION: Real Estate is not completely available until 6/01/86. Contract All5 is scheduled to be advertised 10/18/85. A partial NTP still can be given on the scheduled NTP date of 2/27/86. It is recommended that MRTC manpower be allocated to priority contracts (i.e., All2 and All4 for the completion of bid documents).

CONTRACT: A145 & A157 5TH/Hill Station, Stage I & II

AREA OF CONCERN: Contract completion is six weeks beyond the contract Time of Performance (7/27/85). Delay is due to the ECRs that require changes in design (e.g. 5 ft. extension & 3 ft. lowering of the station).

RECOMMENDATION: The Contract Amendment for ECRs 2 through 7 should be expedited to extend the Time of Performance (9/8/85).

CONTRACT: A171 & A175/A187 Line and Wilshire/Alvarado Station Stage I & II

AREA OF CONCERN:

- 1) Contract Completion is forecast 22 weeks beyond the Contract Time of Performance (12/7/84).
- 2) Disposition of relocation of existing Fire Station is required.

RECOMMENDATION:

- 1) A Contract Amendment to extend the Time of Performance should be expedited. The schedule should be revised accordingly.
- 2) Replacement site for the Fire Station should be determined and UMTA approval secured in order to meet the forecast construction NTP (11/06/85).

Non-Minimum Operable Segment-1 Design Contracts

CONTRACT: A240 Wilshire/Crenshaw Station

AREA OF CONCERN: Contract completion is forecast 11 weeks beyond the contract Time of Performance (1/26/85). Delay is due to the late receipt of seismic design criteria, and numerous ECRs that require design changes.

RECOMMENDATION: The Contract Amendment for Increment I should be expedited to extend the Time of Performance (4/15/85).

CONTRACT: A245 Wilshire/La Brea Station

AREA OF CONCERN: Contract completion is forecast 24 weeks beyond the contract Time of Performance (10/15/84). Delay is due to the late receipt of seismic design criteria, numerous ECRs that require changes in the design, and Section Designer is short of personnel.

RECOMMENDATION: Contract Amendment for Increment I should be expedited to extend the Time of Performance (3/30/85).

CONTRACT: A275 Fairfax/Beverly Station

AREA OF CONCERN: Contract completion is forecast 13 weeks beyond the Contract Time of Performance (12/27/84). Delay is due to the late receipt of seismic design criteria, and numerous ECRs that require changes in the design.

RECOMMENDATION: Contract Amendment for Increment I should be expedited to extend the Time of Performance (3/29/85).

CONTRACT: A425 Universal City Station

AREA OF CONCERN: Contract completion is forecast 5 weeks beyond the Contract Time of Performance (2/11/85). Delay is due to the late receipt of seismic design criteria.

RECOMMENDATION: Contract Amendment #4 for Increment I should be expedited to extend the Time of Performance (3/31/85).

Systemwide In-House Design

CONTRACT: A740 Fans

AREA OF CONCERN: The final completion date is forecast 4 weeks beyond the scheduled completion date (3/15/85). Delay is due to enlarging the fan size for A187 (Wilshire/Alvarado Station).

RECOMMENDATION: Efforts should be increased to avoid further delay to final design completion.

CONTRACT: A750 Tunnel Liners

AREA OF CONCERN: The final completion date is forecast for 3/01/85, 15 weeks beyond the scheduled completion date (11/16/84). Delay is due to continuing search for a suitable membrane that will eliminate gas penetration.

RECOMMENDATION: In order to meet the forecast date of 3/01/85, it is recommended that efforts be increased in locating a material that is impervious to methane gas and will withstand heavy construction operations.

CONTRACT: A760 Graphics & Signage

AREAS OF CONCERN: The final completion date is forecast 8 weeks beyond the scheduled completion date of 02/22/85. Delay is due to scope changes in the contract.

RECOMMENDATION: Effort should be increased to recover delay in schedule.

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METRO RAIL PROJECT
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DESIGN CONTRACTS & CONSTRUCTION PACKAGES	NOTICE TO PROCEED	CONTRACT TIME OF PERFORM.	IN PROGRESS SUBMITTAL		PRE-FINAL SUBMITTAL		FINAL SUBMITTAL		BID DOCUMENTS		CURR MONTH SLIPPAGE (C.D.)	TOTAL DELAY (WEEKS)
			SCHEDULE	F'CAST (F) ACTUAL (A)	SCHEDULE	F'CAST (F) ACTUAL (A)	BASELINE SCHEDULE	F'CAST (F) ACTUAL (A)	BASELINE SCHEDULE	F'CAST (F) ACTUAL (A)		
MOS-1: YARD & SHOPS	07/13/83	01/31/85										
A112			02/01/84	06/14/84A	03/28/84	10/11/84A	12/10/84	12/10/84A	02/05/85	07/01/85F	-	21
A114			-	01/27/84A	04/25/84	05/30/84A	11/30/84	08/27/84A	01/28/85	04/28/85F	-	13
A115			09/10/84	09/24/84A	10/08/84	11/01/84A	12/10/84	12/28/84A	02/22/85	07/01/85F	-	18
A130			03/07/84	09/10/84A	05/02/84	12/24/84A	03/13/85	03/08/85F	08/22/85	03/29/85F	-	-
UNION STATION	07/13/83	12/31/84										
A133 BAGGAGE HANDLING			-	11/08/84A	-	-	-	12/14/84A	04/25/85	03/01/85F	-	-
A135 STAGE I			02/01/84	03/09/84A	04/01/84	11/30/84A	03/01/85	03/01/85F	05/23/85	05/24/85F	-	-
A136 STAGE II			02/01/84	03/09/84A	04/01/84	11/30/84A	03/01/85	03/01/85F	04/25/85	05/01/85F	-	-
LINE, CIVIC CENTER & 5TH / HILL	07/27/83	07/27/85										
A141 LINE & STAGE I			08/01/84	08/01/84A	03/01/85	03/01/85F	06/10/85	06/10/85F	08/05/85	08/07/85F	21	-
A142 EXC./SUP.			08/01/84	07/16/84A	09/07/84	09/28/84A	12/24/84	12/12/84F	03/28/85	03/29/85F	27	-
A147 STAGE II			08/01/84	08/01/84A	03/01/85	03/01/85F	06/10/85	06/10/85F	08/06/85	08/06/85F	20	-
A145 STAGE I			08/01/84	08/01/84A	03/01/85	03/01/85F	06/10/85	06/10/85F	08/07/85	09/08/85F	55	6
A157 STAGE II			08/01/84	08/01/84A	03/01/85	03/01/85F	06/10/85	07/08/85F	08/06/85	09/06/85F	55	6
7TH & FLOWER	08/09/83	01/31/85										
A166 STAGE I			02/07/84	03/12/84A	05/22/84	11/26/84A	03/01/85	01/14/85F	08/05/85	08/06/85F	-	-
A167 STAGE II			02/07/84	03/12/84A	05/22/84	11/26/84A	03/01/85	01/14/85F	08/05/85	05/01/85F	-	-
WILSH./ALVARADO	08/09/83	12/07/84										
A171&A175 STAGE I			02/14/84	02/16/84A	05/30/84	11/26/84A	03/15/85	03/04/85F	05/05/85	05/10/85F	-	22
A187 STAGE II			04/02/84	05/07/84A	07/25/84	11/26/84A	03/15/85	03/04/85F	05/09/85	05/10/85F	-	22

NOTE: FINAL SUBMITTAL AND BID DOCUMENTS BASELINE SCHEDULE DATE COLUMNS ARE FROM THE APPROVED BASELINE SCHEDULE (1/23/85).

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DESIGN CONTRACTS & CONSTRUCTION PACKAGES	NOTICE TO PROCEED	CONTRACT TIME OF PERFORM.	IN PROGRESS SCHEDULE	SUBMITTAL P'CAST (F) ACTUAL (A)	PRE-FINAL SUBMITTAL SCHEDULE	SUBMITTAL P'CAST (F) ACTUAL (A)	FINAL SUBMITTAL (85%) ^a SCHEDULE	P'CAST (F) ACTUAL (A)	CURR MONTH SLIPPAGE (C.D.)	TOTAL DELAY (WEEKS)
<u>BEYOND MOS-1</u>										
WILSH./VERMONT A196 STAGE I	08/12/83	08/11/84	02/07/84	02/10/84A	05/22/84	12/14/84A	08/07/84	02/27/85A	-	-
A197 STAGE II	10/10/83	10/07/85	02/07/84	02/10/84A				-	-	-
LINE, WESTERN & NORMANDIE STA. A220 LINE			10/08/84	06/26/84A	04/08/85	03/06/85F	10/07/85	06/26/85F	-	-
WILSH./WESTERN A220 STAGE I			08/06/84	08/23/84A	11/05/84	01/09/85A	02/04/85	06/26/85F	-	-
A237 STAGE II			08/06/84	08/23/84A	-	-	-	-	-	-
WILSH./NORMANDIE A220 STAGE I			12/03/84	02/20/85A	03/04/85	05/01/85F	06/03/85	06/26/85F	-	-
A227 STAGE II			12/03/84	-	-	-	-	-	-	-
WILSH./CRENSHAW A240 STAGE I	01/27/84	01/26/85	07/26/84	09/13/84A	11/01/84	03/14/85F	01/15/85	04/15/85F	-	11
A242 STAGE II			07/26/84	09/13/85A	-	-	-	-	-	-
WILSH./LA BREA A245 STAGE I	10/10/83	10/15/84	04/16/84	05/07/84A	07/07/84	03/08/85F	10/16/84	03/30/85F	-	24
A247 STAGE II			04/16/84	05/07/84A	-	-	-	-	-	-
WILSH./FAIRFAX & LINE A250 STAGE I	03/02/84	06/17/85	11/12/84	11/15/84A	03/04/85	04/10/85F	05/06/85	05/31/85F	25	-
A267 STAGE II			11/12/84	11/15/84A	-	-	-	-	-	-

^aDESIGN CONTRACTS BEYOND MOS-1 WILL TERMINATE AT THE 85% DESIGN LEVEL.

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DESIGN SCHEDULE STATUS

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DESIGN CONTRACTS & CONSTRUCTION PACKAGES	NOTICE TO PROCEED	CONTRACT TIME OF PERFORM.	IN PROGRESS SCHEDULE	SUBMITTAL		PRE-FINAL SUBMITTAL		FINAL SUBMITTAL (85A)*		BID DOCUMENTS	
				P'CAST (F) ACTUAL (A)	SCHEDULE	P'CAST (F) ACTUAL (A)	SCHEDULE	P'CAST (F) ACTUAL (A)	SCHEDULE	SLIPPAGE (C.D.)	DELAY (WEEKS)
FAIRFAX/BEVERLY A275 STAGE I	12/30/83	12/27/84	06/28/84	06/28/84A	09/27/84	01/31/85A	12/27/84	03/29/85F	18	13	
A277 STAGE II			06/28/84	06/28/84A	-	-	-	-	-	-	
FAIRFAX/SANTA MONICA & TUNNEL A320 STAGE I	12/05/83	12/05/85	11/10/84	11/12/84A	03/06/85	03/06/85F	05/15/85	05/15/85F	-	-	
A327 STAGE II			11/10/84	11/12/84A	-	-	-	-	-	-	
LA BREA/SUNSET A330 STAGE I			02/06/85	02/06/85F	05/29/85	05/29/85F	07/31/85	07/31/85F	-	-	
A347 STAGE II			-	-	-	-	-	-	-	-	
HOLLYWOOD/ CAHUENGA A350 STAGE I	12/29/83	05/02/85	08/27/84	09/10/84A	12/20/84	03/04/85F	05/02/85	04/15/85F	-	-	
A352 STAGE II			08/27/84	09/10/84A	-	-	-	-	-	-	
LINE BETWEEN HOLLYWOOD/ CAHUENGA AND UNIVERSAL CITY A410	12/29/83	12/29/84	06/28/84	07/31/84A	09/28/84	11/26/84A	12/28/84	01/18/85A	-	-	
HOLLYWOOD BOWL A415	02/13/84	02/11/85	08/13/84	11/16/84A	DESIGN TERMINATED AT 50% DESIGN LEVEL			-	-	-	
UNIVERSAL CITY A425 STAGE I	02/13/84	02/11/85	08/13/84	08/13/84	08/15/84A	11/19/85	02/04/85A	02/11/85	03/18/85F	5	
A427 STAGE II		08/13/84	08/13/84	08/15/84A	-	-	-	-	-	-	

*DESIGN CONTRACTS BEYOND MOG-1 WILL TERMINATE AT THE 85A DESIGN LEVEL.

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**METRO RAIL PROJECT
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DESIGN CONTRACTS & CONSTRUCTION PACKAGES	NOTICE TO PROCEED	CONTRACT TIME OF PERFORM.	IN PROGRESS SCHEDULE	SUBMITTAL F'CAST (F) ACTUAL (A)	PRE-FINAL SCHEDULE	SUBMITTAL F'CAST (F) ACTUAL (A)	FINAL SUBMITTAL (85A)* SCHEDULE	F'CAST (F) ACTUAL (A)	CURR MONTH SLIPPAGE (C.D.)	TOTAL DELAY (WEEKS)
LINE BETWEEN UNIVERSAL CITY & NO. HOLLYWOOD A430	12/29/83	03/20/85	07/06/84	08/06/84A	02/06/85	02/27/85A	03/20/85	03/20/85P	-	-
NORTH HOLLYWOOD A445 STAGE I A447 STAGE II	12/29/83	05/03/85	09/20/84 09/20/84	10/01/84A 10/01/84A	01/31/85	03/01/85P	05/27/85	05/03/85P	- -	- -
*DESIGN CONTRACTS BEYOND MOB-1 WILL TERMINATE AT THE 85A DESIGN LEVEL.										

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DESIGN CONTRACTS & CONSTRUCTION PACKAGES	NOTICE TO PROCEED	CONTRACT TIME OF PERFORM.	IN PROGRESS SCHEDULE	SUBMITTAL P'CAST (P) ACTUAL (A)	PRE FINAL SUBMITTAL SCHEDULE	P'CAST (P) ACTUAL (A)	FINAL SUBMITTAL		BID DOCUMENTS		CURR MONTH SLIPPAGE (C.D.)	TOTAL DELAY (WEEKS)
							BASELINE SCHEDULE	P'CAST (P) ACTUAL (A)	BASELINE SCHEDULE	P'CAST (P) ACTUAL (A)		
SYSTEMWIDE A610 MOB-1 TRACKWORK	03/01/84	-	01/15/85	01/15/85A	03/15/85	03/15/85P	05/16/85	05/15/85P	07/12/85	07/15/85P	-	-
A620 ATC	05/02/83	-	09/28/84	02/14/85P	12/09/84	07/09/85P	10/01/85	09/26/85P	07/12/85	-	-	-
A630 TRACTION POWER EQUIP. INCL. A612 & A615	02/01/84	-	04/30/84	05/29/84A	11/30/84	01/10/85A	10/03/85	04/30/85P	11/27/85	-	-	-
A631 TRACTION POWER INSTAL.	02/01/84	-	07/01/85	07/01/85P	01/31/86	01/31/86P	07/01/86	04/30/86P	08/26/86	-	-	-
A640 COMM.	05/02/83	-	03/30/85	02/19/85A	05/30/85	08/19/85P	12/06/85	12/02/85P	02/03/86	-	-	-
A650 PASS. VEHICLES	05/02/83	-	07/23/84	07/23/84A	11/01/84	03/01/85P	07/01/85	07/01/85P	08/26/85	-	-	-
A660 FARE COLLECTION	05/02/83	-	11/01/84	03/29/85P	06/01/85	07/31/85P	03/18/86	02/01/86P	05/12/86	-	-	-
A671 AUX. VEHIC. LOCOMOTIVE	05/02/83	-	05/01/84	05/11/84A	10/01/84	11/07/84A	01/22/85	02/14/85A	03/18/85	-	-	-
A710 ESCALATORS	05/02/83	-	01/30/84	02/08/84A	05/02/84	06/21/84A	01/22/86	01/14/85A	03/18/86	-	-	-
A720 ELEVATORS	05/02/83	-	05/01/84	07/02/84A	N/A	N/A	01/22/86	01/14/85A	03/12/86	-	-	-
A740 FANS	01/15/84	-	04/02/84	04/16/84A	N/A	N/A	02/15/85	03/15/85	04/11/85	-	-	4
A745 TRSS AIR HANDLING EQUIP.	05/15/84	-	11/15/84	03/01/85P	N/A	N/A	03/15/85	04/30/85P	05/09/85	-	-	-
A750 TUNNEL LINERS	10/01/83	-	05/16/84	05/16/84A	08/15/84	08/23/84A	11/16/84	03/01/85P	N/A	N/A	-	15
A760 SIGNING	02/22/84	-	06/30/84	02/15/85P	08/01/84	03/22/85P	02/22/85	04/19/85P	04/18/85	-	-	8

N/A = Not Applicable

NOTE: FINAL SUBMITTAL AND BID DOCUMENTS BASELINE SCHEDULE DATE COLUMNS ARE FROM THE APPROVED BASELINE SCHEDULE (1/23/85).