

COST AND SCHEDULE  
STATUS REPORT  
JANUARY 1984

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SECTION I  
PRELIMINARY ENGINEERING

## PRELIMINARY ENGINEERING STATUS

JANUARY 1984

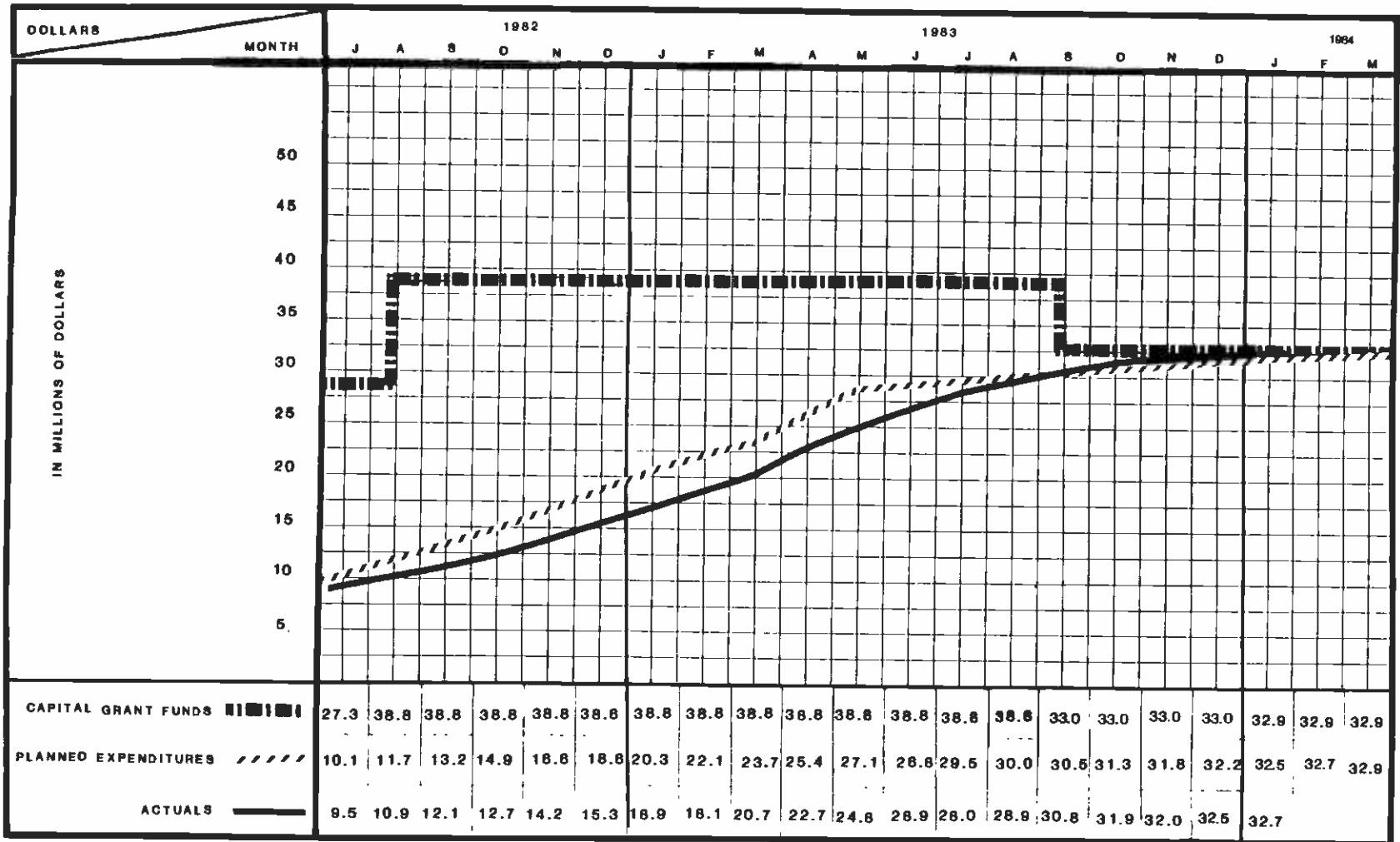
This section details the \$32.949 million budgeted for Preliminary Engineering. Expenditures to date total \$32.693 million.

All Preliminary Engineering deliverables are complete but work is still progressing on the L. A. County contract which is 96% complete. This contract, once complete, will finalize the P. E. Phase. Administration is taking steps to close all contracts with official termination letters to accounting and contractors. Once this is done, any money remaining in P. E. line items will be transferred to the same C.P.E. line items.

The accompanying graph illustrates the planned P. E. expenditures against the actual expenditures. As of 1/31/84 there is \$256,000 remaining to go in the Professional Services line item.

# RTD METRO RAIL PROJECT PRELIMINARY ENGINEERING STATUS

JANUARY 1984



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03/07/84  
P&C(WP)-7.3

Date Prepared: 2/20/84  
Status as of : 1/31/84  
WBS # : 11DAA3113

SCRIP METRO RAIL PROJECT  
PRELIMINARY ENGINEERING BUDGET  
SUMMARY BY MACS CODE (\$000'S)

AFE* 021	(MACS ** CODE) DESCRIPTION	UNOBLIGATED			OBLIGATIONS TO DATE			CURRENT WKG. BUDGET (7=3+6)	EST. AT COMPLETION (8)	APPROVED BUDGET (9)	VARIANCE/ % (10=9-8)
		RESERVED (1)	COMMITTED (2)	TOTAL (3=1+2)	UNEXPENDED (4)	EXPENDED (5)	TOTAL (6=4+5)				
A.	(20.02.01) Purchase of Support Autos	\$ - 0 -	\$ - 0 -	\$ - 0 -	\$ - 0 -	\$ 22	\$ 22	\$ 22	\$ 22	\$ 22	\$ 0/0%
B.	(20.02.02) Purchase/Installation of Support Equipment	- 0 -	- 0 -	- 0 -	- 0 -	1,100	1,100	1,100	1,100	1,100	0/0%
C.	(20.08.01) Professional Services Contracts	- 0 -	- 0 -	- 0 -	256	23,933	24,189	24,189	24,189	24,189	0/0%
D.	(20.15.02) Force Account Work	- 0 -	- 0 -	- 0 -	- 0 -	6,499	6,499	6,499	6,499	6,499	0/0%
E.	(20.15.90) Other Supporting Services	- 0 -	- 0 -	- 0 -	- 0 -	1,019	1,019	1,019	1,019	1,019	0/0%
F.	(32.00.00) Contingencies	- 0 -	- 0 -	- 0 -	- 0 -	- 0 -	- 0 -	- 0 -	- 0 -	- 0 -	0/0%
G.	(20.16.00) General & Administrative	- 0 -	- 0 -	- 0 -	- 0 -	120	120	120	120	120	0/0%
GRAND TOTAL		\$ - 0 -	\$ - 0 -	\$ - 0 -	\$ 256	\$ 32,693	\$ 32,949	\$ 32,949	\$ 32,949	\$ 32,949	\$ 0/0%

\* AFE - Authorization for Expenditure  
\*\* MACS - Management and Control System

PRELIMINARY ENGINEERING BUDGET & COST REPORT

PROFESSIONAL SERVICES CONTRACTS

January 1984

<u>Audit #</u>	<u>Contract</u>	<u>\$ Budget</u>	<u>\$ Actual</u>	<u>C=Completed or % Phys. Compl.</u>	<u>On Schedule</u>
I. WAYS & STRUCTURES					
2440-1	DMJM/PBQ&D	5,334,863	5,334,863	C	Yes
2365-1	Teledyne	283,872	283,872	C	Yes
2428-1	Wilson Ihrig	169,139	169,139	C	Yes
2284-1	Lindvall Richter	271,000	271,000	C	Yes
2256-2	Converse Consults.	1,151,855	1,151,855	C	Yes
2427	Converse Consults.	115,000	104,000	C	Yes
2493-1	PSG Waters	188,387	188,387	C	Yes
2719-1	Real Estate Analysts	37,238	37,238	C	Yes
2720-1	Lea Associates	38,497	38,497	C	Yes
2718-1	Natelson Co.	40,000	40,000	C	Yes
2593	Velma Marshall	25,000	24,961	C	Yes
2654	Glenn Johnson	15,500	15,217	C	Yes
2757	P.E. Sperry	7,606	7,606	C	*
2760	T.G. McCusker	7,253	7,253	C	*
2274	Carl Englund	20,000	14,153	C	*
2195	American Aerial	3,504	3,504	C	*
2640	Larry Gallagher	1,500	971	C	*
2955	Kellogg Corp.	24,900	24,900	C	*
TOTAL WAYS & STRUCTURES		\$7,735,114	\$7,717,416	N/A	N/A
II. SYSTEMS DESIGN & ANALYSIS					
2439	Kaiser Engineers	3,502,464	3,502,464	C	Yes
2214	JPL	10,000	9,500	C	Yes
2217	Walter Woods	5,000	1,020	C	Yes
2595	Robert Johnston	500	319	C	*
2434-4	B,A&H	3,265,503	3,265,503	C	Yes
2218	Montreal Comm. of Transportation	5,000	5,000	C	Yes
2360	Log/An	1,932	1,932	C	Yes
2349	David Ashley	9,800	9,800	C	Yes
TOTAL SYSTEMS DESIGN & ANALYSIS		\$6,800,199	\$6,795,538	N/A	N/A

A.B.DICK  
P&C-1.3  
2.29.84

PRELIMINARY ENGINEERING  
BUDGET & COST REPORT (cont'd)

<u>Audit #</u>	<u>Contract</u>	<u>\$ Budget</u>	<u>\$ Actual</u>	<u>C=Completed or % Phys. Compl.</u>	<u>On Schedule</u>
III. STATIONS					
2510-2	Harry Weese	4,019,205	\$4,019,205	C	Yes
2419-4	Sedway/Cooke	1,713,865	1,663,497	C	Yes
2418-2	City of L.A.	1,755,815	1,755,815	C	Yes
2705-4	Schimpeler-Corr.	657,158	635,858	C	Yes
2842	Schimpeler-Corr.	10,000	10,000	C	Yes
2803	Schimpeler-Corr.	18,000	18,000	C	Yes
2797	Robert Harmon	24,900	24,900	C	Yes
2611-3	County of L.A.	229,300	199,733	96	Yes
2160-5	Barton-Aschman	25,000	25,000	C	Yes
2225	Barton-Aschman	8,501	8,501	C	*
2395	Computer Usage Co.	8,312	8,312	C	*
2764-1	W.F. Hoey	4,995	4,995	C	*
2610	W.F. Hoey	5,000	990	C	*
2266	W.F. Hoey	5,000	5,000	C	*
2421	PBQ&D	5,000	1,409	C	*
2900	Schimpeler-Corr.	151,000	142,631	C	Yes
TOTAL STATIONS		\$8,641,051	\$8,523,846	N/A	N/A
IV. PROGRAM CONTROL					
2908	Data General	10,967	10,967	C	Yes
2279	TAD-Log/An	451,199	451,199	C	Yes
2163	TAD-Log/An	15,000	15,000	C	Yes
2363	Log/An	28,009	28,009	C	*
2534	TAMS	24,987	24,987	C	*
TOTAL PROGRAM CONTROL		\$ 530,162	\$ 530,162	N/A	N/A
VI. COMMUNITY RELATIONS					
2620	CKT Associates	18,070	18,070	C	*
2619	Institute of Cultural Affairs	23,260	23,260	C	*
2400	John Hennessy	107,712	107,712	C	*
TOTAL COMMUNITY RELATIONS		\$ 149,042	\$ 149,042	N/A	N/A



PRELIMINARY ENGINEERING  
BUDGET & COST REPORT (cont'd)

<u>Audit #</u>	<u>Contract</u>	<u>\$ Budget</u>	<u>\$ Actual</u>	<u>C=Completed or % Phys. Compl.</u>	<u>On Schedule</u>
VII. MISCELLANEOUS CONTRACTS					
3002	Burton Jones	4,000	3,750	C	*
2726	Townsend Assoc.	24,000	23,365	C	*
2907	Jacobs Assoc.	24,900	24,900	C	*
2823	Manuel Padron	7,358	7,358	C	*
2669	Eugene Stann	6,508	6,508	C	*
2671	Fred Burke	7,500	2,692	C	*
2670	George Krambles	9,670	9,670	C	*
2677	Robert Johnston	8,044	8,044	C	*
2668	William Alexander	3,858	3,858	C	*
2430	Bureau de Transit			C	*
	Metro	5,000	2,187	C	*
2499	Barton-Aschman	4,121	4,121	C	*
2179	Tanzmann Associates	9,881	9,881	C	*
2286	Tanzmann Associates	843	843	C	*
2776	U.S.C.	4,320	1,539	C	*
2930	Lincoln Institute	24,500	12,689	C	*
2902	NTS	8,467	8,467	C	Yes
2910-2	NBMBW&M	80,000	40,340	*	*
2943	O'Melveny & Meyers	100,000	46,345	*	*
TOTAL MISC. CONTRACTS		\$ 332,970	\$ 216,557	N/A	N/A
GRAND TOTAL P.E.		\$24,188,538	\$23,932,561	N/A	N/A

\*

Note: Asterisked items indicate Peer Review Boards, General Managers Transit Technical Advisory Committee, and "As Needed" Consultants for whom schedule status is not relevant

SECTION II  
CONTINUED PRELIMINARY ENGINEERING

## CONTINUED PRELIMINARY ENGINEERING STATUS

JANUARY 1984

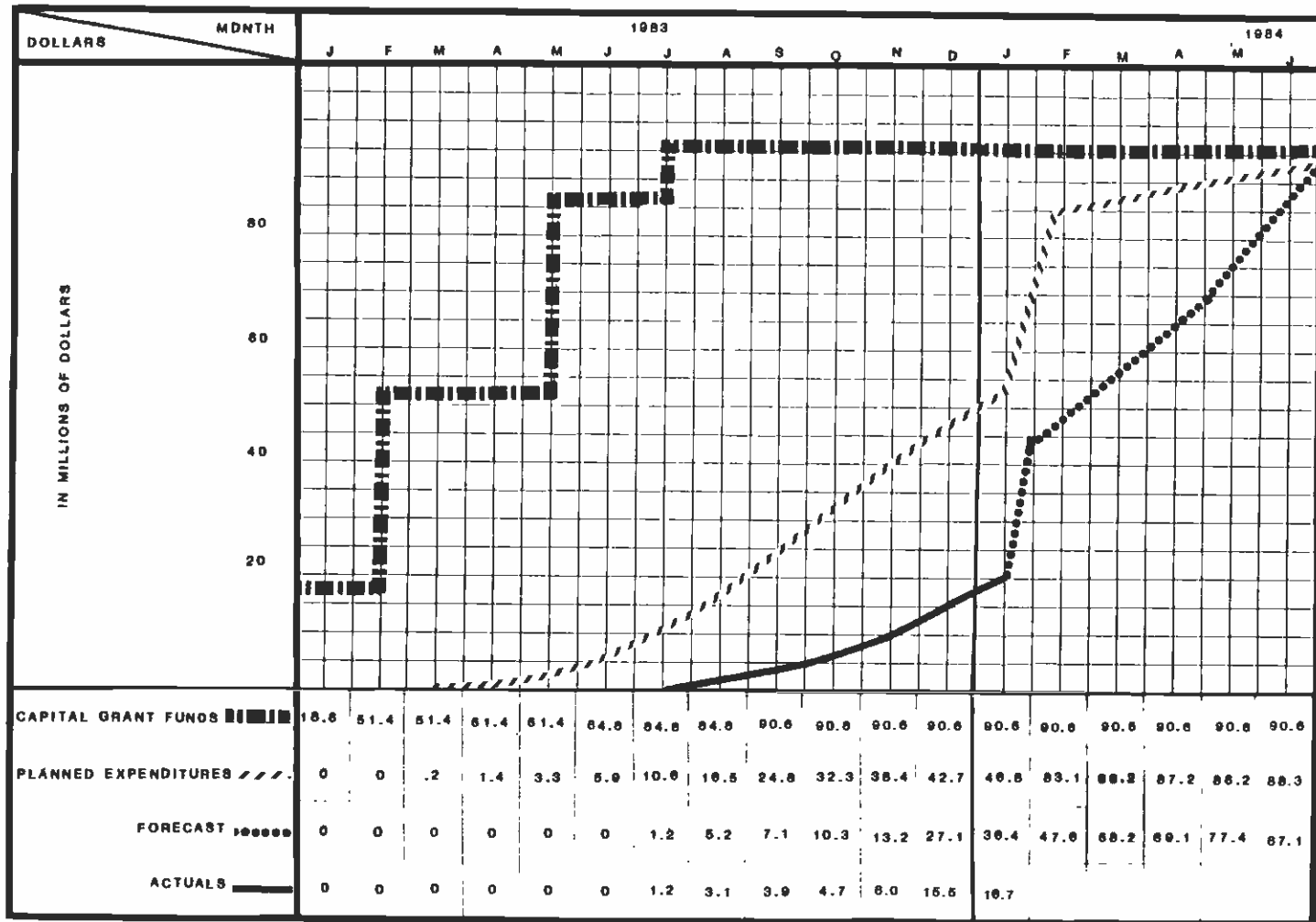
This section details the \$90.607 million budgeted for Continued Preliminary Engineering. Expenditures to date total \$16.702 million.

Each section designer within this phase has been the subject of an independent analysis (by TSD Program Control) of their cost and schedule status. (See Section D - Subcontractor Evaluations.) Also, an overall contract assessment for scheduling and cost has been prepared this month and is included preceding the subcontractor evaluations.

A budget amendment request will be sent to UMTA to transfer funds from P.E. and within the C.P.E. line items themselves.

# RTD METRO RAIL PROJECT CONTINUED PRELIMINARY ENGINEERING STATUS

JANUARY 1984



\* EXCLUDING CONTINGENCIES



03/07/84  
P&C(WP)-7.7

Date Prepared: 2/20/84  
Status as of: 1/31/84  
WBS #: 11DAA3113

SCRIP METRO RAIL PROJECT  
CONTINUING PRELIMINARY ENGINEERING BUDGET  
SUMMARY BY MACS CODE (\$000'S)

AFE*	(MACS ** CODE) DESCRIPTION	UNOBLIGATED			OBLIGATIONS TO DATE			CURRENT WKG. BUDGET (7=3+6)	EST. AT COMPLETION (8)	APPROVED BUDGET (9)	VARIANCE/ % (10=9-8)
		RESERVED (1)	COMMITTED (2)	TOTAL (3=1+2)	UNEXPENDED (4)	EXPENDED (5)	TOTAL (6=4+5)				
021											
A.	(20.02.01) Purchase of Support Autos	\$ 18	\$ - 0 -	\$ 18	\$ - 0 -	\$ - 0 -	\$ - 0 -	\$ 18	\$ 18	\$ 18	\$ 0/0%
B.	(20.02.02) Purchase/Installation of Support Equipment	75	50	125	20	69	89	214	214	214	0/0%
TBD	(20.02.07) Purchase/Installation of MIS Equipment	77	- 0 -	77	823	- 0 -	823	900	900	900	0/0%
TBD	(20.02.08) Purchase/Installation of Communications Equipment	100	- 0 -	100	- 0 -	- 0 -	- 0 -	100	100	100	0/0%
C.	(20.08.01) Professional Services Contracts	2,146	4,217	6,363	29,921	13,657	43,578	49,941	49,941	49,941	0/0%
D.	(20.15.02) Force Account Work	2,375	- 0 -	2,375	- 0 -	1,686	1,686	4,061	4,061	4,061	0/0%

02/22/84  
P&C (WP) - 7.7

Date Prepared: 2/20/84  
STATUS AS OF : 1/31/84  
WBS # : 11DAA3113

SCRIPD METRO RAIL PROJECT  
CONTINUING PRELIMINARY ENGINEERING BUDGET  
SUMMARY BY MACS CODE (\$000'S)

AFE*	(MACS ** CODE) DESCRIPTION	UNOBLIGATED			OBLIGATIONS TO DATE			CURRENT WKG. BUDGET (7=3+6)	EST. AT COMPLETION (8)	APPROVED BUDGET (9)	VARIANCE/ % (10=9-8)
		RESERVED (1)	COMMITTED (2)	TOTAL (3=1+2)	UNEXPENDED (4)	EXPENDED (5)	TOTAL (6=4+5)				
E.	(20.15.90) Other Supporting Services	152	48	200	40	1,123	1,163	1,363	1,363	1,363	(0)/0%
F.	(32.00.00) Contingencies	1,209	- 0 -	1,209	- 0 -	- 0 -	- 0 -	1,209	- 0 -	1,209	1,209/0%
G.	(20.16.00) General & Administrative	15	13	28	92	51	143	171	171	171	(0)/0%
045	ROW Acquisition for Central Yard & Shops	32,478	- 0 -	32,478	36	116	152	32,630	32,630	32,630	- 0 -/0%
GRAND TOTAL		\$ 38,645	\$ 4,328	\$ 42,973	\$ 30,932	\$ 16,702	\$ 47,634	\$ 90,607	\$ 89,398	\$ 90,607	\$ 1,209/1%

\* AFE - Authorization for Expenditure  
\*\* MACS - Management and Control System

METRO RAIL PROJECT  
SECTION DESIGN  
SUBCONTRACT EVALUATION SUMMARY

STATUS AS OF: 01/31/84

UNIT NO.	DESCRIPTION	% COMPLETE		INCREMENTAL PROGRESS THIS PERIOD	PRODUCTIVITY BASED ON		CURRENT BUDGET	PROJECTED ESTIMATE AT COMPLETION	EFFICIENCY NEEDED TO COMPLETE CONTRACT ON BUDGET
		PLANNED	ACTUAL		HRS	\$\$			
A100	YARD AND SHOPS	N/A	43	8 %	96%	92%	\$ 4,080,878	\$ 4,432,558	106.95%
A135	UNION STATION	N/A	45	5 %	126%	145%	2,897,000	2,000,000	79.79%
A140	CIVIC CENTER/5TH & HILL	N/A	17	5.5%	79%	90%	6,203,707	6,929,412	102.45%
A165	7TH & FLOWER	N/A	25	3 %	111%	101%	2,387,000	2,360,000	99.62%
A170	WILSHIRE/ALVARADO	N/A	32	12 %	106%	104%	3,119,430	2,987,500	98.05%
A195	WILSHIRE/VERMONT	N/A	45	12 %	111%	99%	1,541,126	1,551,111	100.54%
A220	WILSHIRE/NORMANDIE & WILSHIRE/WESTERN	N/A	7	3 %	95%	93%	4,676,695	5,028,571	100.57%
A240	WILSHIRE/GRENSHAW	N/A	0	0	-	-	2,394,790*	2,394,790	-
A245	WILSHIRE/LA BREA	N/A	15	5.5%	138%	134%	1,608,579	1,200,000	95.71%
A250	WILSHIRE/FAIRFAX	N/A	-	-	-	-	3,956,421*	3,956,421	-
A275	FAIRFAX/BEVERLY	N/A	2.5	2.5%	-	-	2,250,000	2,250,000	-
A310	FAIRFAX/SANTA MONICA & LA BREA/SUNSET	N/A	4	2.5%	-	-	4,409,415	4,409,415	-
A350	HOLLYWOOD/CAHUENGA	N/A	5	5 %	-	-	2,071,181	2,071,181	-
A410	LINE FROM HOLLYWOOD/CAHUENGA UNIVERSAL CITY	N/A	2	2	-	-	2,627,160	2,627,160	-
A415	HOLLYWOOD BOWL	N/A	-	-	-	-	2,013,910	2,013,910	-
A425	UNIVERSAL CITY	N/A	-	-	-	-	2,403,180	2,403,180	-
A430	LINE FROM UNIVERSAL CITY TO NORTH HOLLYWOOD	N/A	3	3 %	-	-	1,968,766	1,968,766	-
A445	NORTH HOLLYWOOD	N/A	1.5	1.5%	-	-	2,141,868	2,141,000	-
TOTAL							\$52,754,406	\$52,724,975	

\*ESTIMATE

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## OVERALL CONTRACT ASSESSMENT - COST

The cost analysis of the January '84 MRTC Progress Report continues to be hampered by the lack of both a planned progress curve and a forecast of labor and cost.

When trying to relate the cost and labor plans in the January '84 MRTC Progress Report to the biweekly Design Status Report, inconsistencies begin to surface. For example:

<u>Contract</u>	<u>Description</u>	<u>Progress Planned*</u>	<u>Actual</u>	<u>Average Productivity</u>	<u>Months into Contract</u>	<u>Contract Duration</u>
A135	Union Station	50%	45%	126%	7	13
A165	7th & Flower	45%	25%	111%	6	12
A170	Wilshire/Alvarado	38%	32%	106%	5	16
A195	Wilshire/Vermont	45%	45%	111%	6	13
A245	Wilshire/LaBrea	21%	15%	138%	4	13

All of the above contracts are averaging well over 100% in productivity, yet most are behind schedule. Assuming that the Progress reported, the planned Progress, as well as the cost and labor plans are correct, this condition cannot exist! Therefore, either the progress information, and/or the cost and labor plans are not accurately represented. The MRTC has indicated that forecasts and progress plans will accompany the February report. This will enhance our analysis of the section design contracts.

\*Taken from the biweekly Design Status Report.



## OVERALL CONTRACT ASSESSMENT - SCHEDULING

As of the status date (1/31/84) three design contracts still have not received Notice to Proceed. During the report period contract A240 was issued a Notice to Proceed.

Of the contracts in progress nearly all are behind schedule ranging from 1 week to 2 months.

Nearly all contracts are failing to submit monthly updates as required. Update submittal is essential in order to properly assess contract performance.

RTD METRO RAIL PROJECT  
C.P.E. PHASE  
SUBCONTRACTOR EVALUATION  
JANUARY 1984

COST ANALYSIS

CONTRACT # - A100 YARD AND SHOPS (INCLUDES 110, 112, 114, 130, 610)  
DESIGN CONTRACTOR DMJM/PBQD

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COMMENTS ON MRTC PROGRESS REPORT

- o MRTC NEEDS TO SUBMIT DRAWING LISTS AND CPM FOR REVISED MOW SHOP BUILDING.
- o RTD NEEDS TO REVIEW BUDGET AND DRAWING LISTS FOR CONTRACTS A112 & A130. THE SCOPE OF A112 HAS BEEN REDEFINED DUE TO THE DELETION OF CONTRACT A113.

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PERFORMANCE ASSESSMENT

DATA REPORTED BY THE MRTC/DESIGN CONSULTANT

% COMPLETE PLANNED -	N/A		
% COMPLETE ACTUAL -	43%		
TOTAL COST BUDGET - \$	4081000	CONTRACT DURATION:	16 MONTHS
ACTUAL COST SPENT TO DATE - \$	1906000	MONTHS INTO CONTRACT:	7 MONTHS
FORECASTED COST - \$	4081000		
TOTAL MANHOUR BUDGET -	87900	INCREMENTAL PROGRESS:	8%
ACTUAL HOURS SPENT TO DATE -	39400	(THIS PERIOD)	
FORECASTED HOURS -	87900		

---

$$\begin{array}{r} \text{PRODUCTIVITY} = \% \text{ COMPLETE} \times \text{TOTAL MH BUDGET} \\ \text{(CUMULATIVE)} \end{array} = \frac{.43 \times 87900}{\text{MTRS. SPENT} \quad 39400} = 0.96$$

A SATISFACTORY PRODUCTIVITY LEVEL.

---

$$\begin{array}{r} \text{EARNED COSTS} = \% \text{ COMPLETE} \times \text{TOTAL COST BUDGET} \\ \text{(CUMULATIVE)} \end{array} = .43 \times 4081000 = \$ 1754830$$

THIS CONTRACTOR, BEING AT 43% COMPLETE, HAS THEORETICALLY EARNED \$1754830.

---

$$\begin{array}{r} \text{COST PERFORMANCE INDEX} = \text{EARNED COSTS} \\ \text{(CUMULATIVE - CPI)} \end{array} = \frac{1754830}{\text{ACTUAL COSTS SPENT} \quad 1906000} = 0.92$$

THE COST PERFORMANCE INDICATES THAT, THEORETICALLY, WE ARE GETTING \$0.92 WORTH OF WORK FOR EVERY DOLLAR WE SPEND. A SATISFACTORY C.P.I.

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$$\begin{array}{r} \text{COST VARIANCE} = \text{ACTUAL \$ SPENT} - \text{EARNED \$} \\ \text{(CUMULATIVE)} \end{array} = 1906000 - 1754830 = \$ 151170$$

TO DATE, THIS CONTRACT HAS THEORETICALLY OVERRUN BY \$151170.

COST ANALYSIS  
(CONTINUED)

CONTRACT # - A100 YARD AND SHOPS (100, 112, 114, 130, 610)  
DESIGN CONTRACTOR - DMJM/PBQD

---

PERFORMANCE ASSESSMENT (CONTINUED)

% SPENT = ACTUAL COSTS SPENT = 1906000 = 46.70%  
(CUMULATIVE) BUDGET AT COMPLETION = 4081000

THE CONTRACTOR HAS SPENT 46.70% OF THE TOTAL BUDGET VS. HIS PHYSICAL PROGRESS OF 43%.

---

EST. AT COMPLETION = BUDGET AT COMPLETION = 4081000 = \$ 4432558  
(CALCULATED - EAC) COST PERFORMANCE INDEX = 0.92

AT THE CURRENT RATE OF COST PERFORMANCE (CPI), WE PROJECT THAT THIS CONTRACT WILL BE COMPLETED AT A COST OF \$4432558. THIS REPRESENTS A COST OVERRUN OF \$351558 OR A 8.61% INCREASE.

---

TO COMPLETE = BUDGET AT COMPLETION - EARNED COSTS 4081000 - 1754830  
PERFORMANCE INDEX EST. AT COMPLETION - ACTUAL \$ SPENT = 4081000 - 1906000  
(REPORTED)  
  
= 106.95%

TO COMPLETE PERFORMANCE INDEX INDICATES THAT THE CONTRACTOR MUST WORK AT 106.95% EFFICIENCY FOR THE BALANCE OF THE CONTRACT, IN ORDER TO COME IN ON BUDGET. CONTRACTOR WILL NEED TO INCREASE PRODUCTIVITY BY 10.95% FOR THE DURATION OF THE CONTRACT TO COME IN ON BUDGET.

---

CONCLUSION

THIS CONTRACT APPEARS TO BE PROGRESSING STEADILY, BUT THE CONTRACTOR NEEDS TO INCREASE HIS PRODUCTIVITY IN ORDER TO FINISH ON BUDGET. A BETTER ANALYSIS OF PROGRESS CAN BE MADE AFTER THE SCOPE OF WORK FOR THE CONSTRUCTION CONTRACT UNITS HAVE BEEN REDEFINED.

SUBCONTRACTOR EVALUATION

SCHEDULE ANALYSIS  
 STATUS AS OF: January 31, 1984

DESIGN CONTRACT: 110 Yard Clearing, Grading	AWARD: 07/07/83
DESIGN SUBCONTRACTOR: DMJM/PBQD	NTP: 07/13/83
PROJECT MANAGER(TSD/MRTC): Levy/McCauley	DURATION: 459 (CALENDAR DAYS)

MAJOR MILESTONES	SCHEDULED	FORECAST	ACTUAL	VARIANCE(CD)
CONTROL SYSTEM SUBMITTAL	07/27/83	-	10/28/83	-
IN PROG. SUBMITTAL (60%)	11/16/83	-	11/16/83	-
PRE FINAL SUBMITTAL (85%)	01/04/84	-	01/18/84	-
FINAL SUBMITTAL (100%)	02/29/84	*02/29/84	-	-
BID DOCUMENTS	02/29/84	*02/29/84	-	-
TIME OF PERFORMANCE	01/25/85	01/25/85	-	-

RESOLUTIONS OF LAST PERIODS PROBLEMS:

An updated subcontractor's schedule still has not been received by Program Control. The schedule with status as of the end of November was requested early December. The subcontractor has not provided forecasted dates for the final submittal.

AREAS OF CONCERN:

Subcontractor must submit an updated schedule showing status as of the end of February. The information is necessary as project engineers and Program Control need to make an objective estimate of percent complete. The Contractor's staff in the last two months has been switched from A112 and A130 to this contract to insure the design schedule would be met. However, the contract schedule is apparently slipping.

COMMENTS:

As reported last period, a critical review must be accomplished with the subcontractor's updated schedule to insure that the schedule is not delayed any further. It is recommended that a team made up of MRTC and TSD Project Engineers and Program Control personnel responsible for this contract should meet to discuss this contract. Areas other than design should also be discussed.

PERFORMANCE ASSESSMENT:

Subcontractor is currently behind schedule. Subcontractor missed the scheduled pre-final submittals of 01/04/84, but did deliver submittal on 1/18/84. The scheduled final submittal of 02/29/84 will not be met.  
 \*Forecast dates are not yet available.

**MTA LIBRARY**



SUBCONTRACTOR EVALUATION

SCHEDULE ANALYSIS  
 STATUS AS OF: January 31, 1984

DESIGN CONTRACT: 113-Transportation Building*	AWARD: 07/07/83
DESIGN SUBCONTRACTOR: DMJM/PBQD	NTP: 07/13/83
PROJECT MANAGER(TSD/MRTC): Levy/McCauley	DURATION: 459 (CALENDAR DAYS)

MAJOR MILESTONES	SCHEDULED	FORECAST	ACTUAL	VARIANCE
CONTROL SYSTEM SUBMITTAL	07/13/83	-	10/28/83	-
IN PROG. SUBMITTAL (60%)	11/16/83	-	11/16/83	-
PRE FINAL SUBMITTAL (85%)	01/04/84	-	-	-
FINAL SUBMITTAL (100%)	02/29/84	-	-	-
BID DOCUMENTS	02/29/84	-	-	-
TIME OF PERFORMANCE	01/25/85	01/25/85	-	-

RESOLUTIONS OF LAST PERIODS PROBLEMS:

Interim use of transportation building is no longer an issue as this contract will be deleted in February.

AREAS OF CONCERN:

Maintenance of Way Building is being proposed as an early contract to replace this contract.

COMMENTS:

New contract (114-Maintenance of Way) will also be an early contract but will not contain the same contractual dates.

PERFORMANCE ASSESSMENT:

\*Contract will be deleted in February and a tentative contract (All4) will be established.

SUBCONTRACTOR EVALUATION

SCHEDULE ANALYSIS  
STATUS AS OF: January 31, 1984

DESIGN CONTRACT: 130 Line Subway to Union Station	AWARD: 07/07/83
DESIGN SUBCONTRACTOR: DMJM/PBQD	NTP: 07/13/83
PROJECT MANAGER (TSD/MRTC): Levy/McCauley	DURATION: 459 (CALENDAR DAYS)

MAJOR MILESTONES	SCHEDULED	FORECAST	ACTUAL	VARIANCE
CONTROL SYSTEM SUBMITTAL	07/27/83	-	10/28/83	-
IN PROG. SUBMITTAL (60%)	03/07/84	05/16/84	-	-77
PRE FINAL SUBMITTAL (85%)	05/02/84	07/11/84	-	-70
FINAL SUBMITTAL (100%)	06/27/84	09/05/84	-	-70
BID DOCUMENTS	06/27/84	09/05/84	-	-70
TIME OF PERFORMANCE	01/25/85	01/25/85	-	-

RESOLUTIONS OF LAST PERIODS PROBLEMS:

Not resolved - conceptual design drawings were not approved at a meeting with Caltrans in late December. Subcontractor is delayed in starting detail plans until at least a partial approval is given.

AREAS OF CONCERN:

Last month it was reported that conceptual design drawings had to be approved in January so as not to affect the in-progress submittal (60%) forecast for 03/07/84. Due to the drawings not being approved there has been a schedule impact. The forecasted date for submittal is now 05/16/84. The impact to the construction NTP is that the schedule date of 10/17/84 (start of construction) may be slipped to 01/02/85.

COMMENTS:

Due to subcontractor being delayed by an outside agency, every attempt must be made to insure that this submittal (60%) does not impact the schedule any further. The District should contact Caltrans ahead of time when a scheduled submittal will be sent for review and approval.

PERFORMANCE ASSESSMENT:

Subcontractor is currently behind schedule. Reasons other than delay in conceptual design drawings approval by Caltrans have not been given.

03/06/84  
PC-14.20<4>

RID METRO RAIL PROJECT  
 C.P.E. PHASE  
 SUBCONTRACTOR EVALUATION  
 JANUARY, 1984

COST ANALYSIS

CONTRACT # - A135 UNION STATION  
 DESIGN CONTRACTOR HARRY WEESE & ASSOCIATES

COMMENTS ON MRTC PROGRESS REPORT

- o TSD PROJECT MANAGER FEELS THAT A MORE REALISTIC PERCENT COMPLETE FIGURE FOR JANUARY WOULD BE 40% INSTEAD OF MRTC'S 45%.

PERFORMANCE ASSESSMENT

DATA REPORTED BY THE MRTC/DESIGN CONSULTANT

% COMPLETE PLANNED -	N/A		
% COMPLETE ACTUAL -	45%		
TOTAL COST BUDGET - \$	2897000	CONTRACT DURATION:	13 MONTHS
ACTUAL COST SPENT TO DATE - \$	900000	MONTHS INTO CONTRACT:	7 MONTHS
FORECASTED COST - \$	2897000		
TOTAL MANHOUR BUDGET -	55900	INCREMENTAL PROGRESS:	5%
ACTUAL HOURS SPENT TO DATE -	20000	(THIS PERIOD)	
FORECASTED HOURS -	55900		

$$\text{PRODUCTIVITY} = \frac{\% \text{ COMPLETE} \times \text{TOTAL MH BUDGET}}{\text{MTRS. SPENT}} = \frac{.45 \times 55900}{20000} = 1.26$$

(CUMULATIVE)

PRODUCTIVITY CONTINUES TO BE HIGH AT 126%, THOUGH IT IS DOWN 17 POINTS FROM DECEMBER (FROM 143% TO 126%) AND 47 POINTS FROM NOVEMBER (FROM 173% TO 126%).

$$\text{EARNED COSTS} = \% \text{ COMPLETE} \times \text{TOTAL COST BUDGET} = .45 \times 2897000 = \$ 1303650$$

(CUMULATIVE)

THIS CONTRACTOR, BEING AT 45% COMPLETE, HAS THEORETICALLY EARNED \$1303650.

$$\text{COST PERFORMANCE INDEX} = \frac{\text{EARNED COSTS}}{\text{ACTUAL COSTS SPENT}} = \frac{1303650}{900000} = 1.45$$

(CUMULATIVE) - CPI

THE COST PERFORMANCE INDICATES THAT, THEORETICALLY, WE ARE GETTING \$1.45 WORTH OF WORK FOR EVERY DOLLAR WE SPEND. DOWN \$0.20 FROM DECEMBER.

$$\text{COST VARIANCE} = \text{ACTUAL \$ SPENT} - \text{EARNED \$} = 900000 - 1303650 = \$ (403650)$$

(CUMULATIVE)

TO DATE, THIS CONTRACT HAS THEORETICALLY UNDERRUN BY \$403650.



COST ANALYSIS  
(CONTINUED)

CONTRACT # - A135 UNION STATION  
DESIGN CONTRACTOR - HARRY WEESE & ASSOCIATES

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PERFORMANCE ASSESSMENT (CONTINUED)

$$\begin{array}{l} \% \text{ SPENT} = \\ \text{(CUMULATIVE)} \end{array} \quad \frac{\text{ACTUAL COSTS SPENT}}{\text{BUDGET AT COMPLETION}} = \frac{900000}{2897000} = 31.07\%$$

THE CONTRACTOR HAS SPENT 31.07% OF THE TOTAL BUDGET VS. HIS PHYSICAL PROGRESS OF 45%.

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$$\begin{array}{l} \text{EST. AT COMPLETION} = \\ \text{(CALCULATED - EAC)} \end{array} \quad \frac{\text{BUDGET AT COMPLETION}}{\text{COST PERFORMANCE INDEX}} = \frac{2897000}{1.45} = \$ 2000000$$

AT THE CURRENT RATE OF COST PERFORMANCE (CPI), WE PROJECT THAT THIS CONTRACT WILL BE COMPLETED AT A COST OF \$2000000. THIS REPRESENTS A COST UNDERRUN OF \$897000 OR A 30.96% DECREASE, DOWN \$247,500 FROM DECEMBER.

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$$\begin{array}{l} \text{TO COMPLETE} \\ \text{PERFORMANCE INDEX} \end{array} = \frac{\text{BUDGET AT COMPLETION} - \text{EARNED COSTS}}{\text{EST. AT COMPLETION} - \text{ACTUAL \$ SPENT}} = \frac{2897000 - 1303650}{2897000 - 900000} = 79.79\%$$

TO COMPLETE PERFORMANCE INDEX INDICATES THAT THE CONTRACTOR MUST WORK AT 79.79% EFFICIENCY FOR THE BALANCE OF THE CONTRACT, IN ORDER TO COME IN ON BUDGET.

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CONCLUSION

THE CONTRACTOR'S COST AND LABOR PLANS ARE IN QUESTION. OUR CALCULATIONS INDICATE THAT THE CONTRACTOR HAS A CUMULATIVE PRODUCTIVITY OF 126%, BUT HE IS BEHIND ON PROGRESS (SEE DESIGN STATUS REPORT 2/3/84 - PLANNED PROGRESS 50%, ACTUAL PROGRESS 45%).

IN THE NEAR FUTURE, THE COST OF RAILROAD RELOCATION WILL BE ADDED TO THE BUDGET; THIS WORK IS IN THE SCOPE OF THE CONTRACT BUT WAS NOT BUDGETED BY THE CONTRACTOR.

A135 CONTINUES TO PROJECT A COST UNDERRUN, ALTHOUGH THE MONTHLY FIGURES ARE DOWN FROM DECEMBER. WITH THE FUNDS ADDED TO THE BUDGET FOR RAILROAD RELOCATION THE CONTRACTOR'S LABOR AND COST PLANS WILL BE FURTHER OVERSTATED BASED ON HIS CURRENT PERFORMANCE.

SUBCONTRACTOR EVALUATION

SCHEDULE ANALYSIS  
 STATUS AS OF: January 31, 1984

DESIGN CONTRACT: A135 Union Station Complete	AWARD: 07/07/83
DESIGN SUBCONTRACTOR: Harry Weese & Associates	NTP: 07/13/83
PROJECT MANAGER(TSD/MRTC): Low/Cooper	DURATION: 365 C.D. (CALENDAR DAYS)

MAJOR MILESTONES	SCHEDULED	FORECAST	ACTUAL	VARIANCE
CONTROL SYSTEM SUBMITTAL	08/13/83	-	10/10/83	-
IN PROG. SUBMITTAL (60%)	02/01/84	02/27/84	-	-26
PRE FINAL SUBMITTAL (85%)	04/01/84	04/02/84	-	-1
FINAL SUBMITTAL (100%)	06/01/84	06/04/84	-	-3
BID DOCUMENTS	07/18/84	07/18/84	-	0
TIME OF PERFORMANCE	07/13/84	06/04/84	-	+39

RESOLUTIONS OF LAST PERIODS PROBLEMS:

Traction Power Substation design has been deleted from the scope of work.

\*Revised CPM schedule dated 01/26/84 is approved by the MRTC Project Manager. A letter has not been written to document the approved CPM Schedule.

AREAS OF CONCERN:

Slippage to the in-progress submittal (60%) is due to lack of agreement between the LAUPT, Amtrak, SHPO and the District. The subcontractor has been involved in negotiations which affect design.

The subcontractor's monthly update CPM submittal is not being transmitted from MRTC to RTD Program Control.

COMMENTS:

Pursuant to the schedule review meeting held 01/25/84, the subcontractor is preparing a recovery plan to insure the completion of Bid Documents by mid-July '84.

PERFORMANCE ASSESSMENT:

The in-progress (60%) submittal is forecasted one month beyond the (approved) scheduled date. Project completion is forecast to complete as scheduled.

03/06/84  
 PC-14.20<5>

RTD METRO RAIL PROJECT  
C.P.E. PHASE  
SUBCONTRACTOR EVALUATION  
JANUARY 1984

COST ANALYSIS

CONTRACT # - A140 CIVIC CENTER/5TH & HILL STATIONS  
DESIGN CONTRACTOR DELON HAMPTON & ASSOCIATES

COMMENTS ON MRTC PROGRESS REPORT

- o NO MENTION HAS YET BEEN MADE THAT DHA HAS NOT APPOINTED A LOCAL PROJECT MANAGER.

PERFORMANCE ASSESSMENT

DATA REPORTED BY THE MRTC/DESIGN CONSULTANT

% COMPLETE PLANNED -	N/A		
% COMPLETE ACTUAL -	17%		
TOTAL COST BUDGET - \$	6204000	CONTRACT DURATION:	25 MONTHS
ACTUAL COST SPENT TO DATE - \$	1178000	MONTHS INTO CONTRACT:	7 MONTHS
FORECASTED COST - \$	6204000		
TOTAL MANHOUR BUDGET -	1103000	INCREMENTAL PROGRESS:	5.5%
ACTUAL HOURS SPENT TO DATE -	23800	(THIS PERIOD)	
FORECASTED HOURS -	110300		

$$\text{PRODUCTIVITY} = \frac{\% \text{ COMPLETE} \times \text{TOTAL MH BUDGET}}{\text{MRS. SPENT}} = \frac{.17 \times 110300}{23800} = 0.79$$

(CUMULATIVE)

ACTIVITY IS UP FROM LAST MONTH (FROM 76% TO 79%) BUT IS STILL VERY LOW AND NEEDS TO IMPROVE.

$$\text{EARNED COSTS} = \% \text{ COMPLETE} \times \text{TOTAL COST BUDGET} = .17 \times 6204000 = \$ 1054680$$

(CUMULATIVE)

THIS CONTRACTOR, BEING AT 17% COMPLETE, HAS THEORETICALLY EARNED \$1054680.

$$\text{COST PERFORMANCE INDEX} = \frac{\text{EARNED COSTS}}{\text{ACTUAL COSTS SPENT}} = \frac{1054680}{1178000} = 0.90$$

(CUMULATIVE) - CPI

THE COST PERFORMANCE INDICATES THAT, THEORETICALLY, WE ARE GETTING \$0.90 WORTH OF WORK FOR EVERY DOLLAR WE SPEND. UP \$0.02 FROM DECEMBER.

$$\text{COST VARIANCE} = \text{ACTUAL \$ SPENT} - \text{EARNED \$} = 1178000 - 1054680 = \$ 123320$$

(CUMULATIVE)

TO DATE, THIS CONTRACT HAS THEORETICALLY OVERRUN BY \$123320.

COST ANALYSIS  
(CONTINUED)

CONTRACT # - A140 - CIVIC CENTER/5TH & HILL STATIONS  
DESIGN CONTRACTOR - DELON HAMPTON & ASSOCIATES

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PERFORMANCE ASSESSMENT (CONTINUED)

% SPENT =  $\frac{\text{ACTUAL COSTS SPENT}}{\text{BUDGET AT COMPLETION}} = \frac{1178000}{6204000} = 18.99\%$   
(CUMULATIVE)

THE CONTRACTOR HAS SPENT 18.99% OF THE TOTAL BUDGET VS. HIS PHYSICAL PROGRESS OF 17%

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EST. AT COMPLETION =  $\frac{\text{BUDGET AT COMPLETION}}{\text{COST PERFORMANCE INDEX}} = \frac{6204000}{0.90} = \$ 6929412$   
(CALCULATED - EAC)

AT THE CURRENT RATE OF COST PERFORMANCE (CPI), WE PROJECT THAT THIS CONTRACT WILL BE COMPLETED AT A COST OF \$6929412. THIS REPRESENTS A COST OVERRUN OF \$725412 OR A 11.69% INCREASE. THE PERCENT OF INCREASE IS DOWN SLIGHTLY MORE THAN 2 PERCENTAGE POINTS FROM DECEMBER.

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TO COMPLETE PERFORMANCE INDEX =  $\frac{\text{BUDGET AT COMPLETION} - \text{EARNED COSTS}}{\text{EST. AT COMPLETION} - \text{ACTUAL \$ SPENT (REPORTED)}} = \frac{6204000 - 1054680}{6204000 - 1178000} = 102.45\%$

TO COMPLETE PERFORMANCE INDEX INDICATES THAT THE CONTRACTOR MUST WORK AT 102.45% EFFICIENCY FOR THE BALANCE OF THE CONTRACT, IN ORDER TO COME IN ON BUDGET.

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CONCLUSION

THE DISTRICT PROJECT MANAGER FEELS THAT THE LACK OF THE LOCALLY BASED CONSULTANT PROJECT MANAGER IS A FACTOR IN THE COST OVERRUN OF THIS CONTRACT, SINCE HIGH LEVEL MEMBERS OF THE DHA TEAM MUST FLY IN FROM THE EAST COAST TO ATTEND MEETINGS.

PROGRESS IS UP SLIGHTLY FROM DECEMBER AND THE POTENTIAL COST OVERRUN IS DOWN \$131,458. HOWEVER, THE RATE OF PROGRESS MUST INCREASE TO COMPLETE THIS CONTRACT ON BUDGET.



RTD METRO RAIL PROJECT  
C.P.E. PHASE  
SUBCONTRACTOR EVALUATION  
JANUARY 1984

COST ANALYSIS

CONTRACT # - A165 7TH/FLOWER  
DESIGN CONTRACTOR GANNETT FLEMING/DWORSKY

COMMENTS ON MRTC PROGRESS REPORT

- o NO MENTION OF WHAT CAUSED THE CONTRACT COST INCREASE DUE TO RENEGOTIATIONS.

PERFORMANCE ASSESSMENT

DATA REPORTED BY THE MRTC/DESIGN CONSULTANT

% COMPLETE PLANNED -	N/A		
% COMPLETE ACTUAL -	25%		
TOTAL COST BUDGET - \$	2387000	CONTRACT DURATION:	12 MONTHS
ACTUAL COST SPENT TO DATE - \$	590000	MONTHS INTO CONTRACT:	6 MONTHS
FORECASTED COST - \$	2387000		
TOTAL MANHOUR BUDGET -	56000	INCREMENTAL PROGRESS:	3%
ACTUAL HOURS SPENT TO DATE -	12600	(THIS PERIOD)	
FORECASTED HOURS -	56000		

$$\begin{array}{l} \text{PRODUCTIVITY} = \% \text{ COMPLETE} \times \text{TOTAL MH BUDGET} \\ \text{(CUMULATIVE)} \end{array} = \frac{.25 \times 56000}{\text{MTRS. SPENT} \quad " \quad 12600} = 1.11$$

CONSIDERING THE CHANGES THAT HAVE OCCURRED RECENTLY, THIS PRODUCTIVITY IS QUESTIONABLE.

$$\begin{array}{l} \text{EARNED COSTS} = \% \text{ COMPLETE} \times \text{TOTAL COST BUDGET} \\ \text{(CUMULATIVE)} \end{array} = .25 \times 2387000 = \$ 596750$$

THIS CONTRACTOR, BEING AT 25% COMPLETE, HAS THEORETICALLY EARNED \$596750.

$$\begin{array}{l} \text{COST PERFORMANCE INDEX} = \text{EARNED COSTS} \\ \text{(CUMULATIVE)} - \text{CPI} \end{array} = \frac{596750}{\text{ACTUAL COSTS SPENT} \quad 590000} = 1.01$$

THE COST PERFORMANCE INDICATES THAT, THEORETICALLY, WE ARE GETTING \$1.01 WORTH OF WORK FOR EVERY DOLLAR WE SPEND. THIS IS A FAVORABLE CPI.

$$\begin{array}{l} \text{COST VARIANCE} = \text{ACTUAL } \$ \text{ SPENT} - \text{EARNED } \$ \\ \text{(CUMULATIVE)} \end{array} = 590000 - 596750 = \$ (6750)$$

TO DATE, THIS CONTRACT HAS THEORETICALLY UNDERRUN BY \$6750.

COST ANALYSIS  
(CONTINUED)

CONTRACT # - A165 - 7TH/FLOWER STATION  
DESIGN CONTRACTOR - GANNETT, FLEMING/DWORSKY

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PERFORMANCE ASSESSMENT (CONTINUED)

$$\begin{array}{l} \% \text{ SPENT} = \\ \text{(CUMULATIVE)} \end{array} \quad \frac{\text{ACTUAL COSTS SPENT}}{\text{BUDGET AT COMPLETION}} = \frac{590000}{2387000} = 24.72\%$$

THE CONTRACTOR HAS SPENT 24.72% OF THE TOTAL BUDGET VS. HIS PHYSICAL PROGRESS OF 25%.

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$$\begin{array}{l} \text{EST. AT COMPLETION} = \\ \text{(CALCULATED - EAC)} \end{array} \quad \frac{\text{BUDGET AT COMPLETION}}{\text{COST PERFORMANCE INDEX}} = \frac{2387000}{1.01} = \$ 2360000$$

AT THE CURRENT RATE OF COST PERFORMANCE (CPI), WE PROJECT THAT THIS CONTRACT WILL BE COMPLETED AT A COST OF \$2360000. THIS REPRESENTS A COST UNDERRUN OF \$27000 OR A 1.13% DECREASE.

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$$\begin{array}{l} \text{TO COMPLETE} \\ \text{PERFORMANCE INDEX} \end{array} = \frac{\text{BUDGET AT COMPLETION} - \text{EARNED COSTS}}{\text{EST. AT COMPLETION} - \text{ACTUAL \$ SPENT}} = \frac{2387000 - 596750}{2387000 - 590000} = 99.62\%$$

TO COMPLETE PERFORMANCE INDEX INDICATES THAT THE CONTRACTOR MUST WORK AT 99.62% EFFICIENCY FOR THE BALANCE OF THE CONTRACT, IN ORDER TO COME IN ON BUDGET. IF WORK IS PROGRESSING AS REPORTED, THERE SHOULD BE NO PROBLEM MAINTAINING THIS EFFICIENCY RATIO.

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CONCLUSION

THE COST ANALYSES THIS MONTH INDICATE POSITIVE PROGRESS, BUT ON A MORE REASONABLE LEVEL THAN LAST MONTH. LAST MONTH'S INCREMENTAL PROGRESS WAS 17% VS THIS MONTH'S INCREMENTAL PROGRESS OF 3%. HOWEVER, WITH THE INCREASED SCOPE OF WORK DUE TO THE LIGHT RAIL INTERFACE AND TRACTION POWER SUBSTATION RELOCATION, ONE COULD EXPECT A DECREASE IN THE ACTUAL PERCENT COMPLETE NOW BEING REPORTED.

SUBCONTRACTOR EVALUATION

SCHEDULE ANALYSIS  
STATUS AS OF: January 31, 1984

DESIGN CONTRACT: Al65 7th & Flower Station	AWARD: 04/28/83
DESIGN SUBCONTRACTOR: Gannett Fleming/Dworsky	NTP: 08/09/83
PROJECT MANAGER(TSD/MRTC): Low/Cooper	DURATION: 365 (CALENDAR DAYS)

MAJOR MILESTONES	SCHEDULED	FORECAST	ACTUAL	VARIANCE
CONTROL SYSTEM SUBMITTAL	08/30/83	-	10/17/83	-
IN PROG. SUBMITTAL (60%)	02/07/84	03/12/84	-	-33
PRE FINAL SUBMITTAL (85%)	05/22/84	05/15/84	-	+7
FINAL SUBMITTAL (100%)	08/07/84	08/14/84	-	-7
BID DOCUMENTS	10/14/84	10/14/84	-	0
TIME OF PERFORMANCE	08/09/84	08/14/84	-	-5

RESOLUTIONS OF LAST PERIODS PROBLEMS:

The scope of work has been negotiated to accommodate the Los Angeles - Long Beach Light Rail Transit Line and the relocation of the Traction Power Substation.

Pursuant to the schedule review meeting (01/25/84), the subcontractor is developing a recovery plan to meet the requirements and the contract time of performance.

AREAS OF CONCERN:

Slippage to the in-progress submittal (60%) is due to the modifications required for light rail interface.

Monthly updated CPM Schedules have not been submitted to date.

COMMENTS:

The recovery plan is expected to be submitted by late-February '84.

PERFORMANCE ASSESSMENT:

Design progress is significantly behind the original schedule. An accurate assessment of progress will be determined when the revised CPM is submitted, approved and updated.

03/06/84  
PC-14.20<7>



RTD METRO RAIL PROJECT  
C.P.E. PHASE  
SUBCONTRACTOR EVALUATION  
JANUARY 1984

COST ANALYSIS

CONTRACT # - A170 - WILSHIRE/ALVARADO  
DESIGN CONTRACTOR SVERDRUP CORPORATION

COMMENTS ON MRTIC PROGRESS REPORT

- o NO MENTION OF MACARTHUR LAKE POTENTIAL CUT-AND-COVER PROBLEM.

PERFORMANCE ASSESSMENT

DATA REPORTED BY THE MRTIC/DESIGN CONSULTANT

% COMPLETE PLANNED -	N/A		
% COMPLETE ACTUAL -	32%		
TOTAL COST BUDGET - \$	3119000	CONTRACT DURATION:	17 MONTHS
ACTUAL COST SPENT TO DATE - \$	956000	MONTHS INTO CONTRACT:	6 MONTHS
FORECASTED COST - \$	3119000		
TOTAL MANHOUR BUDGET -	59800	INCREMENTAL PROGRESS:	12%
ACTUAL HOURS SPENT TO DATE -	18000	(THIS PERIOD)	
FORECASTED HOURS -	59800		

$$\text{PRODUCTIVITY} = \frac{\% \text{ COMPLETE} \times \text{TOTAL MH BUDGET}}{\text{MTRS. SPENT}} = \frac{.32 \times 59800}{18000} = 1.06$$

(CUMULATIVE)

THE CONSULTANT HAS MADE SUBSTANTIAL IMPROVEMENT IN PRODUCTIVITY.

$$\text{EARNED COSTS} = \% \text{ COMPLETE} \times \text{TOTAL COST BUDGET} = .32 \times 3119000 = \$ 998080$$

(CUMULATIVE)

THIS CONTRACTOR, BEING AT 32% COMPLETE, HAS THEORETICALLY EARNED \$998080.

$$\text{COST PERFORMANCE INDEX} = \frac{\text{EARNED COSTS}}{\text{ACTUAL COSTS SPENT}} = \frac{998080}{956000} = 1.04$$

(CUMULATIVE - CPI)

THE COST PERFORMANCE INDICATES THAT, THEORETICALLY, WE ARE GETTING \$1.04 WORTH OF WORK FOR EVERY DOLLAR WE SPEND. DECEMBER'S CPI WAS .86, SO THERE HAS BEEN MUCH IMPROVEMENT THIS MONTH.

$$\text{COST VARIANCE} = \text{ACTUAL \$ SPENT} - \text{EARNED \$} = 956000 - 998080 = \$ (42080)$$

(CUMULATIVE)

TO DATE, THIS CONTRACT HAS THEORETICALLY UNDERRUN BY \$42080.



SUBCONTRACTOR EVALUATION

SCHEDULE ANALYSIS  
STATUS AS OF: January 31, 1984

DESIGN CONTRACT: A170 Wilshire/Alvarado Station	AWARD: 04/28/83
DESIGN SUBCONTRACTOR: Sverdrup & Parcel Assocs.	NTP: 08/09/83
PROJECT MANAGER (TSD/MRTC): Thakarar/Hodges	DURATION: 485 (CALENDAR DAYS)

MAJOR MILESTONES	SCHEDULED	FORECAST	ACTUAL	VARIANCE
CONTROL SYSTEM SUBMITTAL	08/30/83	-	09/19/83	-
IN PROG. SUBMITTAL (60%)	03/27/84	04/03/84*		-7
PRE FINAL SUBMITTAL (85%)	06/26/84	06/25/84		+1
FINAL SUBMITTAL (100%)	11/06/84	11/05/84		+1
BID DOCUMENTS	11/24/84	11/24/84		0
TIME OF PERFORMANCE	12/07/84	11/05/84		+32

RESOLUTIONS OF LAST PERIODS PROBLEMS:

The revised CPM dated 01/26/84 is approved by MRTC and payments will be released in February'84. A letter has not been written to document this.

Subcontractor has been working overtime to regain the schedule.

AREAS OF CONCERN:

MRTC's recommendation for construction under MacArthur Lake continues to be delayed. Revised directive drawings of the crossover (which may include a pocket track) have not been issued to the subcontractor and may cause potential delay to design.

MRTC Program Control is not transmitting the subcontractor's monthly updated CPM to the RTD Program Control.

COMMENTS:

\*The 60% submittal of the tunnel and station shell will be submitted 02/15/84 and the 60% submittal of Stage II Design will be submitted 04/03/84.

PERFORMANCE ASSESSMENT:

A detailed assessment of progress cannot be determined until the updated CPM Schedule is received.

03/06/84  
PC-14.20<8>

RTD METRO RAIL PROJECT  
C.P.E. PHASE  
SUBCONTRACTOR EVALUATION  
JANUARY 1984

COST ANALYSIS

CONTRACT # - A195 WILSHIRE/VERMONT  
DESIGN CONTRACTOR KOBER/MAGUIRE

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COMMENTS ON MRTC PROGRESS REPORT

- o NO MENTION OF RESULTS OF OFFICE VISIT MADE BY MRTC PROJECT MANAGER.
- o NO DISCUSSION OF PROBLEM AREAS.
- o THE MRTC NARRATIVE SHOULD BE SPECIFIC ON ACTIVITIES THAT ARE HAPPENING DUE TO DESIGN CHANGE DIRECTIVES BY SCRID OR ANY OTHER CHANGES THAT IMPACT (POTENTIAL AS WELL AS ACTUAL) THE COST OF THIS CONTRACT AND ORIGINAL SCOPE.

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PERFORMANCE ASSESSMENT

DATA REPORTED BY THE MRTC/DESIGN CONSULTANT

% COMPLETE PLANNED -	N/A		
% COMPLETE ACTUAL -	45%		
TOTAL COST BUDGET - \$	1541000	CONTRACT DURATION:	13 MONTHS
ACTUAL COST SPENT TO DATE - \$	698000	MONTHS INTO CONTRACT:	6 MONTHS
FORECASTED COST - \$	1541000		
TOTAL MANHOUR BUDGET -	33900	INCREMENTAL PROGRESS:	12%
ACTUAL HOURS SPENT TO DATE -	13700	(THIS PERIOD)	
FORECASTED HOURS -	33900		

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$$\begin{array}{l} \text{PRODUCTIVITY} = \% \text{ COMPLETE} \times \text{TOTAL MH BUDGET} \\ \text{(CUMULATIVE)} \end{array} = \frac{.45 \times 33900}{\text{MTRS. SPENT} \quad 13700} = 1.11$$

WITH THIS OVERALL PRODUCTIVITY, THE CONSULTANT SHOULD BE AHEAD OF SCHEDULE.

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$$\begin{array}{l} \text{EARNED COSTS} = \% \text{ COMPLETE} \times \text{TOTAL COST BUDGET} \\ \text{(CUMULATIVE)} \end{array} = .45 \times 1541000 = \$ 693450$$

THIS CONTRACTOR, BEING AT 45% COMPLETE, HAS THEORETICALLY EARNED \$693450.

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$$\begin{array}{l} \text{COST PERFORMANCE INDEX} = \text{EARNED COSTS} \\ \text{(CUMULATIVE) - CPI} \end{array} = \frac{693450}{\text{ACTUAL COSTS SPENT} \quad 698000} = 0.99$$

THE COST PERFORMANCE INDICATES THAT, THEORETICALLY, WE ARE GETTING \$0.99 WORTH OF WORK FOR EVERY DOLLAR WE SPEND. A SATISFACTORY CPI.

---

$$\begin{array}{l} \text{COST VARIANCE} = \text{ACTUAL } \$ \text{ SPENT} - \text{EARNED } \$ \\ \text{(CUMULATIVE)} \end{array} = 698000 - 693450 = \$ 4550$$

TO DATE, THIS CONTRACT HAS THEORETICALLY OVERRUN BY \$4550.

COST ANALYSIS  
 (CONTINUED)

CONTRACT # - A195 WILSHIRE/VERMONT  
 DESIGN CONTRACTOR - KOBER/MAGUIRE

PERFORMANCE ASSESSMENT (CONTINUED)

$$\begin{array}{l} \% \text{ SPENT} = \text{ACTUAL COSTS SPENT} \\ \text{(CUMULATIVE)} \end{array} = \frac{698000}{\text{BUDGET AT COMPLETION} \quad 1541000} = 45.30\%$$

THE CONTRACTOR HAS SPENT 45.30% OF THE TOTAL BUDGET VS. HIS PHYSICAL PROGRESS OF 45%.

$$\begin{array}{l} \text{EST. AT COMPLETION} \\ \text{(CALCULATED - EAC)} \end{array} = \frac{\text{BUDGET AT COMPLETION} \quad 1541000}{\text{COST PERFORMANCE INDEX} \quad 0.99} = \$ 1551111$$

AT THE CURRENT RATE OF COST PERFORMANCE (CPI), WE PROJECT THAT THIS CONTRACT WILL BE COMPLETED AT A COST OF \$1551111. THIS REPRESENTS A COST OVERRUN OF \$10111 OR A .66% INCREASE.

$$\begin{array}{l} \text{TO COMPLETE} \\ \text{PERFORMANCE INDEX} \end{array} = \frac{\text{BUDGET AT COMPLETION} - \text{EARNED COSTS} \quad 1541000 - 693450}{\text{EST. AT COMPLETION} - \text{ACTUAL \$ SPENT} \quad 1541000 - 698000} = 100.54\%$$

(REPORTED)

TO COMPLETE PERFORMANCE INDEX INDICATES THAT THE CONTRACTOR MUST WORK AT 100.54% EFFICIENCY FOR THE BALANCE OF THE CONTRACT, IN ORDER TO COME IN ON BUDGET.

CONCLUSION

THE COST ANALYSIS FOR THE MONTH OF JANUARY IS SOMEWHAT MISLEADING. IN FOLLOWING THIS CONTRACT AS IT PROGRESSES, TO THE BEST OF MY KNOWLEDGE, THERE ARE CHANGE ORDERS EXISTING THAT ARE GOING TO IMPACT THE COST OF THE OVERALL CONTRACT. THESE CHANGES ARE DUE TO DESIGN DIRECTIVES FROM SCRID.

THE MRTC PROGRESS REPORT DOES NOT INCLUDE A FORECAST ADDRESSING THE CHANGES THAT WE KNOW EXIST TODAY. FURTHERMORE, IF THESE CHANGES ARE EXTENSIVE AND ARE ADDED TO THEIR REPORTING BASE; I WOULD EXPECT TO SEE A DROP IN THE CONTRACTOR'S REPORTED PERCENT COMPLETE AND AN INCREASE IN THE PROJECTED CONTRACT COST AT COMPLETION.

SUBCONTRACTOR EVALUATION

SCHEDULE ANALYSIS  
STATUS AS OF: January 31, 1984

DESIGN CONTRACT: A195 Wilshire/Vermont	AWARD: 08/05/83
DESIGN SUBCONTRACTOR: Kober/Maquire	NTP: 08/12/83
PROJECT MANAGER(TSD/MRTC): Taylor/Stickel	DURATION: 365 (CALENDAR DAYS)

MAJOR MILESTONES	SCHEDULED	FORECAST	ACTUAL	VARIANCE
CONTROL SYSTEM SUBMITTAL	08/30/83	-	09/19/83	-
IN PROG. SUBMITTAL (60%)	02/07/84	02/07/84	-	0
PRE FINAL SUBMITTAL (85%)	05/22/84	05/22/84	-	0
FINAL SUBMITTAL (100%)	08/07/84	08/07/84	-	0
BID DOCUMENTS	09/19/84	09/19/84	-	0
TIME OF PERFORMANCE	08/12/84	08/07/84	-	+5

RESOLUTIONS OF LAST PERIODS PROBLEMS:

Subcontractor is proceeding with the relocation of the Traction Power Substation underground.

AREAS OF CONCERN:

Changes that are made to the Standard and Directive drawings without approval and/or coordination with the respective design disciplines could result in additional cost and potential delay to design. Changes should be approved and coordinated prior to issuance.

COMMENTS:

MRTC Program Control is not transmitting the Subcontractor's monthly updated CPM Schedules to the TSD Program Control.

PERFORMANCE ASSESSMENT:

Project is currently anticipated to complete on time.

03/06/84  
PC-14.20<9>

RTD METRO RAIL PROJECT  
C.P.E. PHASE  
SUBCONTRACTOR EVALUATION  
JANUARY 1984

COST ANALYSIS

CONTRACT # - A220 WILSHIRE/NORMANDIE, WILSHIRE/WESTERN  
DESIGN CONTRACTOR TUDOR/PEREIRA

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COMMENTS ON MRTC PROGRESS REPORT

- o RTD NEEDS SOILS REPORT FOR TUNNEL AND STATIONS.
- o RTD NEEDS RESOLUTION OF VENT SHAFT CONFIGURATION, DETERMINATION OF FOUNDATION CONDITIONS AT TWO BUILDINGS OVER THE TUNNEL OFF WILSHIRE.

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PERFORMANCE ASSESSMENT

DATA REPORTED BY THE MRTC/DESIGN CONSULTANT

% COMPLETE PLANNED -	N/A		
% COMPLETE ACTUAL -	7%		
TOTAL COST BUDGET - \$	4677000	CONTRACT DURATION:	25 MONTHS
ACTUAL COST SPENT TO DATE - \$	352000	MONTHS INTO CONTRACT:	4 MONTHS
FORECASTED COST - \$	4677000		
TOTAL MANHOUR BUDGET -	79000	INCREMENTAL PROGRESS:	3%
ACTUAL HOURS SPENT TO DATE -	5800	(THIS PERIOD)	
FORECASTED HOURS -	79000		

---

$$\text{PRODUCTIVITY} = \% \text{ COMPLETE} \times \frac{\text{TOTAL MH BUDGET}}{\text{MHS. SPENT}} = \frac{.07 \times 79000}{5800} = 0.95$$

(CUMULATIVE)

A SATISFACTORY PRODUCTIVITY LEVEL.

---

$$\text{EARNED COSTS} = \% \text{ COMPLETE} \times \text{TOTAL COST BUDGET} = .07 \times 4677000 = \$ 327390$$

(CUMULATIVE)

THIS CONTRACTOR, BEING AT 7% COMPLETE, HAS THEORETICALLY EARNED \$327390.

---

$$\text{COST PERFORMANCE INDEX} = \frac{\text{EARNED COSTS}}{\text{ACTUAL COSTS SPENT}} = \frac{327390}{352000} = 0.93$$

(CUMULATIVE - CPI)

THE COST PERFORMANCE INDICATES THAT, THEORETICALLY, WE ARE GETTING \$0.93 WORTH OF WORK FOR EVERY DOLLAR WE SPEND. A SATISFACTORY C.P.I.

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$$\text{COST VARIANCE} = \text{ACTUAL \$ SPENT} - \text{EARNED \$} = 352000 - 327390 = \$ 24610$$

(CUMULATIVE)

TO DATE, THIS CONTRACT HAS THEORETICALLY OVERRUN BY \$24610.

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SUBCONTRACTOR EVALUATION

SCHEDULE ANALYSIS  
STATUS AS OF: January 31, 1984

DESIGN CONTRACT: 220-Line Section & Stage I at Normandie & Western	AWARD: 10/10/83
DESIGN SUBCONTRACTOR: Tudor/Pereira	NTP: 10/10/83
PROJECT MANAGER (TSD/MRTC): Bilco/Cofer	DURATION: 730 (CALENDAR DAYS)

MAJOR MILESTONES	SCHEDULED	FORECAST	ACTUAL	VARIANCE
CONTROL SYSTEM SUBMITTAL	10/24/83	-	10/24/83	-
IN PROG. SUBMITTAL (60%)	10/08/84	10/08/84	-	-
PRE FINAL SUBMITTAL (85%)	04/08/85	04/08/85	-	-
FINAL SUBMITTAL (100%)	09/16/85	09/16/85	-	-
BID DOCUMENTS	10/28/85	10/28/85	-	-
TIME OF PERFORMANCE	10/07/85	10/07/85	-	-

RESOLUTIONS OF LAST PERIODS PROBLEMS:

At grade site development at Wilshire/Western Station released (early cert.). The location of the Traction Power Substation was finalized and design work is underway.

AREAS OF CONCERN:

The soils report for the tunnel section is needed for design; further delay will impact design. The information regarding the existing foundation of buildings between Vermont and Normandie is required.

COMMENTS:

An updated design subcontractor schedule has not been received.

PERFORMANCE ASSESSMENT:

The subcontractor is performing well. The contract is currently one or two weeks behind schedule. An updated design schedule is necessary in completing the assessment.

RTD METRO RAIL PROJECT  
C.P.E. PHASE  
SUBCONTRACTOR EVALUATION  
JANUARY 1984

COST ANALYSIS

CONTRACT # - A240 WILSHIRE/CRENSHAW  
DESIGN CONTRACTOR TURNER/CHANG

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COMMENTS ON MRTC PROGRESS REPORT

NONE

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PERFORMANCE ASSESSMENT

DATA REPORTED BY THE MRTC/DESIGN CONSULTANT

% COMPLETE PLANNED -	N/A		
% COMPLETE ACTUAL -	0%		
TOTAL COST BUDGET - \$	2395000	CONTRACT DURATION:	12 MONTHS
ACTUAL COST SPENT TO DATE - \$	0	MONTHS INTO CONTRACT:	0 MONTHS
FORECASTED COST - \$	2395000		
TOTAL MANHOUR BUDGET -	44600	INCREMENTAL PROGRESS:	0%
ACTUAL HOURS SPENT TO DATE -	0	(THIS PERIOD)	
FORECASTED HOURS -	44600		

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NOTICE TO PROCEED WAS ISSUED DECEMBER 31, 1983 MAKING IT TOO EARLY TO EVALUATE PROGRESS.

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RTD METRO RAIL PROJECT  
C.P.E. PHASE  
SUBCONTRACTOR EVALUATION  
JANUARY 1984

COST ANALYSIS

CONTRACT # - A245 WILSHIRE/LA BREA  
DESIGN CONTRACTOR STV ENGINEERS/LYON ASSOCIATES

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COMMENTS ON MRTC PROGRESS REPORT

- o NO PROBLEM AREAS ARE BEING ADDRESSED.

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PERFORMANCE ASSESSMENT

DATA REPORTED BY THE MRTC/DESIGN CONSULTANT

% COMPLETE PLANNED -	N/A		
% COMPLETE ACTUAL -	15%		
TOTAL COST BUDGET - \$	1609000	CONTRACT DURATION:	13 MONTHS
ACTUAL COST SPENT TO DATE - \$	180000	MONTHS INTO CONTRACT:	4 MONTHS
FORECASTED COST - \$	1609000		
TOTAL MANHOUR BUDGET -	32200	INCREMENTAL PROGRESS:	5.5%
ACTUAL HOURS SPENT TO DATE -	3500	(THIS PERIOD)	
FORECASTED HOURS -	32200		

---

$$\text{PRODUCTIVITY} = \% \text{ COMPLETE} \times \frac{\text{TOTAL MH BUDGET}}{\text{MHS. SPENT}} = .15 \times \frac{32200}{3500} = 1.38$$

(CUMULATIVE)

PRODUCTIVITY IS HIGH AT 138%, AND IS UP 5 POINTS FROM DECEMBER. THIS IS HIGHLY SUSPECT ON A CUMULATIVE BASIS.

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$$\text{EARNED COSTS} = \% \text{ COMPLETE} \times \text{TOTAL COST BUDGET} = .15 \times 1609000 = \$ 241350$$

(CUMULATIVE)

THIS CONTRACTOR, BEING AT 15% COMPLETE, HAS THEORETICALLY EARNED \$241350

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$$\text{COST PERFORMANCE INDEX} = \frac{\text{EARNED COSTS}}{\text{ACTUAL COSTS SPENT}} = \frac{241350}{180000} = 1.34$$

(CUMULATIVE - CPI)

THE COST PERFORMANCE INDICATES THAT, THEORETICALLY, WE ARE GETTING \$1.34 WORTH OF WORK FOR EVERY DOLLAR WE SPEND. A HIGH FIGURE, CONSISTENT WITH THE PRODUCTIVITY FIGURE AND ALSO SUSPECT.

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$$\text{COST VARIANCE} = \text{ACTUAL \$ SPENT} - \text{EARNED \$} = 180000 - 241350 = \$ (61350)$$

(CUMULATIVE)

TO DATE, THIS CONTRACT HAS THEORETICALLY UNDERRUN BY \$61350.

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COST ANALYSIS  
(CONTINUED)

CONTRACT # - A245 WILSHIRE/LA BREA  
DESIGN CONTRACTOR - STV ENGINEERS/LYON ASSOCIATES

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PERFORMANCE ASSESSMENT (CONTINUED)

$$\begin{array}{rclclcl} \% \text{ SPENT} = & \text{ACTUAL COSTS SPENT} & & 180000 & & \\ \text{(CUMULATIVE)} & \underline{\hspace{2cm}} & = & \underline{\hspace{2cm}} & = & 11.19\% \\ & \text{BUDGET AT COMPLETION} & & 1609000 & & \end{array}$$

THE CONTRACTOR HAS SPENT 11.19% OF THE TOTAL BUDGET VS. HIS PHYSICAL PROGRESS OF 15%.

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$$\begin{array}{rclclcl} \text{EST. AT COMPLETION} = & \text{BUDGET AT COMPLETION} & & 1609000 & & \\ \text{(CALCULATED - EAC)} & \underline{\hspace{2cm}} & = & \underline{\hspace{2cm}} & = & \$ 1200000 \\ & \text{COST PERFORMANCE INDEX} & & 1.34 & & \end{array}$$

AT THE CURRENT RATE OF COST PERFORMANCE (CPI), WE PROJECT THAT THIS CONTRACT WILL BE COMPLETED AT A COST OF \$1200000. THIS REPRESENTS A COST UNDERRUN OF \$409000 OR A 25.42% DECREASE.

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$$\begin{array}{rclclcl} \text{TO COMPLETE} & = & \text{BUDGET AT COMPLETION - EARNED COSTS} & 1609000 & - & 241350 \\ \text{PERFORMANCE INDEX} & & \underline{\hspace{2cm}} & \underline{\hspace{2cm}} & = & \underline{\hspace{2cm}} \\ & & \text{EST. AT COMPLETION - ACTUAL \$ SPENT} & 1609000 & - & 180000 \\ & & \text{(REPORTED)} & & & \\ & & & & = & 95.71\% \end{array}$$

TO COMPLETE PERFORMANCE INDEX INDICATES THAT THE CONTRACTOR MUST WORK AT 95.71% EFFICIENCY FOR THE BALANCE OF THE CONTRACT IN ORDER TO COME IN ON BUDGET.

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CONCLUSION

FOR THE SECOND CONSECUTIVE MONTH, PRODUCTIVITY IS UNREASONABLY HIGH (138%) AND A COST UNDERRUN IS CALCULATED (\$409,000). A COST AND LABOR FORECAST BY THE MRTC IS DEFINITELY NEEDED AS BOTH THE COST AND LABOR PLANS APPEAR TO BE PRODUCTIVE (SEE DESIGN STATUS REPORT 2/3/84 - PLANNED PROGRESS 21%, ACTUAL PROGRESS 15%).

THE COST IMPACT OF PUTTING THE TPSS UNDERGROUND HAS NOT BEEN EVALUATED.

NOTE: IN TABLE IV-17 (CONSULTANT COST SUMMARY) THE MONTHLY BUDGET FIGURE FOR SEPTEMBER 1984 SHOULD BE 126 (INSTEAD OF 123).

SUBCONTRACTOR EVALUATION

SCHEDULE ANALYSIS  
STATUS AS OF: January 31, 1984

DESIGN CONTRACT: 245-Wilshire/La Brea Station	AWARD: 10/17/83
DESIGN SUBCONTRACTOR: STV/Lyon	NTP: 10/10/83
PROJECT MANAGER (TSD/MRTC): Streitman/Hodges	DURATION: 365 (CALENDAR DAYS)

MAJOR MILESTONES	SCHEDULED	FORECAST	ACTUAL	VARIANCE
CONTROL SYSTEM SUBMITTAL	10/24/83	-	11/16/83	-
IN PROG. SUBMITTAL (60%)	04/16/84	04/16/84	-	-
PRE FINAL SUBMITTAL (85%)	07/07/84	07/07/84	-	-
FINAL SUBMITTAL (100%)	10/16/84	10/16/84	-	-
BID DOCUMENTS	10/06/84	10/06/84	-	-
TIME OF PERFORMANCE	10/09/84	10/09/84	-	-

RESOLUTIONS OF LAST PERIODS PROBLEMS:

Subcontractor told to assume TPSS location to be underground. An evaluation of the location is in progress with a decision expected in February.

Recovery to the schedule will be made by working overtime. Anticipating to be on schedule in a couple of months.

AREAS OF CONCERN:

There are no problem areas at this time that will affect the progress of this contract.

COMMENTS:

A monthly updated schedule has not been received by Program Control.

The award letter dated October 17, 1983 is later than the NTP letter dated October 10, 1983.

PERFORMANCE ASSESSMENT:

The subcontractor is currently behind schedule due to manpower mobilization.

03/06/84  
PC-14.20<12>



RTD METRO RAIL PROJECT  
C.P.E. PHASE  
SUBCONTRACTOR EVALUATION  
JANUARY 1984

COST ANALYSIS

CONTRACT # - A275 - FAIRFAX/BEVERLY  
DESIGN CONTRACTOR WILSHIRE DESIGN ASSOCIATES

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COMMENTS ON MRTC PROGRESS REPORT

NONE

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PERFORMANCE ASSESSMENT

DATA REPORTED BY THE MRTC/DESIGN CONSULTANT

% COMPLETE PLANNED -	N/A	CONTRACT DURATION:	12 MONTHS
% COMPLETE ACTUAL -	2.5%	MONTHS INTO CONTRACT:	1 MONTH
TOTAL COST BUDGET - \$	2250000	INCREMENTAL PROGRESS:	2.5%
ACTUAL COST SPENT TO DATE - \$	67000	(THIS PERIOD)	
FORECASTED COST - \$	2250000		
TOTAL MANHOUR BUDGET -	41300		
ACTUAL HOURS SPENT TO DATE -	1200		
FORECASTED HOURS -	41300		

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CONCLUSION

NOTICE TO PROCEED WAS ISSUED ON DECEMBER 29, 1983, MAKING IT TOO EARLY TO EVALUATE PROGRESS.



SUBCONTRACTOR EVALUATION

SCHEDULE ANALYSIS  
 STATUS AS OF: January 31, 1984

DESIGN CONTRACT: 275-Fairfax/Beverly Station	AWARD: 12/30/83
DESIGN SUBCONTRACTOR: Wilshire Design Associates	NTP: 12/30/83
PROJECT MANAGER(TSD/MRTC): Streitman/Tallet	DURATION: 365 (CALENDAR DAYS)

MAJOR MILESTONES	SCHEDULED	FORECAST	ACTUAL	VARIANCE
CONTROL SYSTEM SUBMITTAL	01/12/84	02/09/84	-	-
IN PROG. SUBMITTAL (60%)	06/28/84	06/28/84	-	-
PRE FINAL SUBMITTAL (85%)	09/29/84	09/29/84	-	-
FINAL SUBMITTAL (100%)	12/27/84	12/27/84	-	-
BID DOCUMENTS	01/26/85	01/26/85	-	-
TIME OF PERFORMANCE	12/30/84	12/30/84	-	-

RESOLUTIONS OF LAST PERIODS PROBLEMS:

NTP issued December 19, 1983 and the Kick-off Meeting was held on January 5, 1984.

AREAS OF CONCERN:

At this time there are no problem areas.

COMMENTS:

The control system submittal was not made, the submittal is forecast for February.

PERFORMANCE ASSESSMENT:

Design has started with problems.

03/06/84  
 PC-14.20<14>

RTD METRO RAIL PROJECT  
C.P.E. PHASE  
SUBCONTRACTOR EVALUATION  
JANUARY 1984

COST ANALYSIS

CONTRACT # - A310 FAIRFAX/SANTA MONICA, LA BREA/SUNSET  
DESIGN CONTRACTOR CARTER ENGINEERS/AMMANN & WHITNEY

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COMMENTS ON MRTC PROGRESS REPORT

NONE

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PERFORMANCE ASSESSMENT

DATA REPORTED BY THE MRTC/DESIGN CONSULTANT

% COMPLETE PLANNED -	N/A		
% COMPLETE ACTUAL -	4%		
TOTAL COST BUDGET - \$	4410000	CONTRACT DURATION:	25 MONTHS
ACTUAL COST SPENT TO DATE - \$	111000	MONTHS INTO CONTRACT:	2 MONTHS
FORECASTED COST - \$	4410000		
TOTAL MANHOUR BUDGET -	84200	INCREMENTAL PROGRESS:	2.5%
ACTUAL HOURS SPENT TO DATE -	1600	(THIS PERIOD)	
FORECASTED HOURS -	84200		

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CONCLUSION

NOTICE TO PROCEED WAS ISSUED ON DECEMBER 5, 1983, MAKING IT TOO EARLY TO EVALUATE PROGRESS.

SUBCONTRACTOR EVALUATION

SCHEDULE ANALYSIS  
STATUS AS OF: January 31, 1984

DESIGN CONTRACT: 310-Fairfax/Sta. Monica, La Brea/Sunset & Line	AWARD: 06/16/83
DESIGN SUBCONTRACTOR: Carter Engrs./Ahmann & Whitney	NTP: 12/05/83
PROJECT MANAGER(TSD/MRTC): Shah/Yacoub	DURATION: 730 (CALENDAR DAYS)

MAJOR MILESTONES	SCHEDULED	FORECAST	ACTUAL	VARIANCE
CONTROL SYSTEM SUBMITTAL	12/19/83	-	01/17/84	-
IN PROG. SUBMITTAL (60%)	12/03/84	12/03/84	-	-
PRE FINAL SUBMITTAL (85%)	06/03/85	06/03/85	-	-
FINAL SUBMITTAL (100%)	12/02/85	12/02/85	-	-
BID DOCUMENTS	12/21/85	12/21/85	-	-
TIME OF PERFORMANCE	12/05/85	12/05/85	-	-

RESOLUTIONS OF LAST PERIODS PROBLEMS:

The Design Status Report issued by MRTC has been corrected to reflect the "Scheduled" and "Forecast" dates of the contract.

The Control System documents have been received at MRTC.

AREAS OF CONCERN:

For this period, there are no reported areas of concern.

COMMENTS:

As of status date, TSD has not conducted a complete Design Schedule Review of this contract due to partial and incomplete submittal of Control System documents by MRTC.

PERFORMANCE ASSESSMENT:

The subcontractor is on schedule.

03/06/84  
PC-14.20<15>

RTD METRO RAIL PROJECT  
C.P.E. PHASE  
SUBCONTRACTOR EVALUATION  
JANUARY 1984

COST ANALYSIS

CONTRACT # - A350 HOLLYWOOD/CAHUENGA  
DESIGN CONTRACTOR STULL ASSOCIATES

---

COMMENTS ON MRTC PROGRESS REPORT

NONE

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PERFORMANCE ASSESSMENT

DATA REPORTED BY THE MRTC/DESIGN CONSULTANT

% COMPLETE PLANNED -	N/A		
% COMPLETE ACTUAL -	5%		
TOTAL COST BUDGET - \$	2071000	CONTRACT DURATION:	16 MONTHS
ACTUAL COST SPENT TO DATE - \$	50000	MONTHS INTO CONTRACT:	1 MONTH
FORECASTED COST - \$	2071000		
TOTAL MANHOUR BUDGET -	43100	INCREMENTAL PROGRESS:	5%
ACTUAL HOURS SPENT TO DATE -	1000	(THIS PERIOD)	
FORECASTED HOURS -	43100		

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CONCLUSION

NOTICE TO PROCEED WAS ISSUED ON DECEMBER 31, 1983, MAKING IT TOO EARLY TO EVALUATE PROGRESS.



RTD METRO RAIL PROJECT  
C.P.E. PHASE  
SUBCONTRACTOR EVALUATION  
JANUARY 1984

COST ANALYSIS

CONTRACT # - A410 HOLLYWOOD/CAHUENGA TO UNIVERSAL CITY  
DESIGN CONTRACTOR TRANSIT AND TUNNEL CONSULTANTS

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COMMENTS ON MRTC PROGRESS REPORT

NONE

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PERFORMANCE ASSESSMENT

DATA REPORTED BY THE MRTC/DESIGN CONSULTANT

% COMPLETE PLANNED -	N/A		
% COMPLETE ACTUAL -	2%		
TOTAL COST BUDGET - \$	2627000	CONTRACT DURATION:	12 MONTHS
ACTUAL COST SPENT TO DATE - \$	80000	MONTHS INTO CONTRACT:	1 MONTH
FORECASTED COST - \$	2627000		
TOTAL MANHOUR BUDGET -	46000	INCREMENTAL PROGRESS:	2%
ACTUAL HOURS SPENT TO DATE -	1200	(THIS PERIOD)	
FORECASTED HOURS -	46000		

---

CONCLUSION

NOTICE TO PROCEED WAS ISSUED ON DECEMBER 28, 1983, MAKING IT TOO EARLY TO EVALUATE PROGRESS.

SUBCONTRACTOR EVALUATION

SCHEDULE ANALYSIS  
 STATUS AS OF: January 31, 1984

DESIGN CONTRACT: 410-Line Between Hollywood/ Cahuenga & Universal City	AWARD: 06/16/83
DESIGN SUBCONTRACTOR: Transit & Tunnel	NTP: 12/29/83
PROJECT MANAGER(TSD/MRTC): Shah/Cofer	DURATION: 365 (CALENDAR DAYS)

MAJOR MILESTONES	SCHEDULED	FORECAST	ACTUAL	VARIANCE
CONTROL SYSTEM SUBMITTAL	01/11/84	01/11/84	-	-
IN PROG. SUBMITTAL (60%)	06/29/84	06/29/84	-	-
PRE FINAL SUBMITTAL (85%)	09/28/84	09/28/84	-	-
FINAL SUBMITTAL (100%)	12/28/84	12/28/84	-	-
BID DOCUMENTS	02/22/85	02/22/85	-	-
TIME OF PERFORMANCE	12/28/84	12/28/84	-	-

RESOLUTIONS OF LAST PERIODS PROBLEMS:

"Scheduled" and "Forecast" dates of the major milestones have been updated based on the Design Status Report.

AREAS OF CONCERN:

As of the status date, the Control System documents have not been received. This delay may cause slippage in schedule.

COMMENTS:

The Subcontractor has not complied with MRTC Program Control Procedures, Revision 5, regarding Control System Submittal.

PERFORMANCE ASSESSMENT:

Consultant is behind schedule. There is a variance of 20 calendar days between the schedule date and the status date for the Control System Submittal.

03/06/84  
 PC-14.20<17>

SUBCONTRACTOR EVALUATION

SCHEDULE ANALYSIS  
 STATUS AS OF: January 31, 1984

DESIGN CONTRACT: 415-Hollywood Bowl  
 DESIGN SUBCONTRACTOR: Edwards & Kelcey  
 PROJECT MANAGER (TSD/MRTC): Shah/Cofer

AWARD: 09/16/83  
 NTP: Not Issued  
 DURATION: N/A  
 (CALENDAR DAYS)

MAJOR MILESTONES	SCHEDULED	FORECAST	ACTUAL	VARIANCE
CONTROL SYSTEM SUBMITTAL	-	-	-	-
IN PROG. SUBMITTAL (60%)	-	-	-	-
PRE FINAL SUBMITTAL (85%)	-	-	-	-
FINAL SUBMITTAL (100%)	-	-	-	-
BID DOCUMENTS	-	-	-	-
TIME OF PERFORMANCE	-	-	-	-

RESOLUTIONS OF LAST PERIODS PROBLEMS:

There were no problems reported for last period.

AREAS OF CONCERN:

NTP has not been issued as of status date. This long delay may cause slippage in overall schedule.

COMMENTS:

NTP is projected to be issued in early February.

PERFORMANCE ASSESSMENT:

No progress has been reported for this Contract.



SUBCONTRACTOR EVALUATION

SCHEDULE ANALYSIS  
 STATUS AS OF: January 31, 1984

DESIGN CONTRACT: 425-Universal City	AWARD: 06/16/83
DESIGN SUBCONTRACTOR: Luckman Partnership	NTP: Not Issued
PROJECT MANAGER (TSD/MRTC): Quesada/McCauley	DURATION: 365 (CALENDAR DAYS)

MAJOR MILESTONES	SCHEDULED	FORECAST	ACTUAL	VARIANCE
CONTROL SYSTEM SUBMITTAL	-	-	-	-
IN PROG. SUBMITTAL (60%)	-	-	-	-
PRE FINAL SUBMITTAL (85%)	-	-	-	-
FINAL SUBMITTAL (100%)	-	-	-	-
BID DOCUMENTS	-	-	-	-
TIME OF PERFORMANCE	-	-	-	-

RESOLUTIONS OF LAST PERIODS PROBLEMS:

There were no problems reported last period.

AREAS OF CONCERN:

NTP has not been issued. NTP was scheduled to have been issued November, 1983. This continuous delay may cause slippage in overall schedule.

COMMENTS:

The Contract has been reviewed. NTP is expected to be issued in early February.

PERFORMANCE ASSESSMENT:

No progress for this Contract will be reported for this period.

03/06/84  
 PC-14.20<19>

RTD METRO RAIL PROJECT  
C.P.E. PHASE  
SUBCONTRACTOR EVALUATION  
JANUARY 1984

COST ANALYSIS

CONTRACT # - A430 UNIVERSAL CITY TO NORTH HOLLYWOOD  
DESIGN CONTRACTOR PAE/WH/S & W

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COMMENTS ON MRTIC PROGRESS REPORT

NONE

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PERFORMANCE ASSESSMENT

DATA REPORTED BY THE MRTIC/DESIGN CONSULTANT

% COMPLETE PLANNED -	N/A	CONTRACT DURATION:	12 MONTHS
% COMPLETE ACTUAL -	3%	MONTHS INTO CONTRACT:	1 MONTH
TOTAL COST BUDGET - \$	1969000	INCREMENTAL PROGRESS:	3%
ACTUAL COST SPENT TO DATE - \$	45000	(THIS PERIOD)	
FORECASTED COST - \$	1969000		
TOTAL MANHOUR BUDGET -	40000		
ACTUAL HOURS SPENT TO DATE -	700		
FORECASTED HOURS -	40000		

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CONCLUSION

NOTICE TO PROCEED WAS ISSUED ON DECEMBER 28, 1983, MAKING IT TOO EARLY TO EVALUATE PROGRESS.

SUBCONTRACTOR EVALUATION

SCHEDULE ANALYSIS  
STATUS AS OF: January 31, 1984

DESIGN CONTRACT: 430-Line Between Universal City North Hollywood	AWARD: 06/16/83
DESIGN SUBCONTRACTOR: PAE/WH/S&W	NTP: 12/29/83
PROJECT MANAGER (TSD/MRTC): Quesada/Hodges	DURATION: 365 (CALENDAR DAYS)

MAJOR MILESTONES	SCHEDULED	FORECAST	ACTUAL	VARIANCE
CONTROL SYSTEM SUBMITTAL	01/11/84	01/11/84	-	-
IN PROG. SUBMITTAL (60%)	07/06/84	07/06/84	-	-
PRE FINAL SUBMITTAL (85%)	10/08/84	10/08/84	-	-
FINAL SUBMITTAL (100%)	12/28/84	12/28/84	-	-
BID DOCUMENTS	01/28/85	01/28/85	-	-
TIME OF PERFORMANCE	12/31/84	12/31/84	-	-

RESOLUTIONS OF LAST PERIODS PROBLEMS:

The NTP date has been confirmed. The correct date is shown above.

AREAS OF CONCERN:

As of status date, Control System documents have not been submitted.

This submittal was scheduled for January 11, 1984. The delay may cause slippage in the schedule.

COMMENTS:

According to the Design Status Report and the MRTC Progress Report for January, the Control System documents have been received. However, TSD has not received any submittal as of the status date.

PERFORMANCE ASSESSMENT:

This Contract is behind schedule. Compliance to the Control System submittal has not been met by the Subcontractor.

03/06/84  
PC-14.20<20>

RTD METRO RAIL PROJECT  
C.P.E. PHASE  
SUBCONTRACTOR EVALUATION  
JANUARY 1984

COST ANALYSIS

CONTRACT # - A445 - NORTH HOLLYWOOD  
DESIGN CONTRACTOR HUGH GIBBS & DONALD GIBBS

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COMMENTS ON MRTIC PROGRESS REPORT

NONE

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PERFORMANCE ASSESSMENT

DATA REPORTED BY THE MRTIC/DESIGN CONSULTANT

% COMPLETE PLANNED -	N/A	
% COMPLETE ACTUAL -	1.5%	
TOTAL COST BUDGET - \$	2142000	CONTRACT DURATION: 19 MONTHS
ACTUAL COST SPENT TO DATE - \$	46000	MONTHS INTO CONTRACT: 1 MONTH
FORECASTED COST - \$	2142000	
TOTAL MANHOUR BUDGET -	45100	INCREMENTAL PROGRESS: 1.5%
ACTUAL HOURS SPENT TO DATE -	700	(THIS PERIOD)
FORECASTED HOURS -	45100	

---

CONCLUSION

NOTICE TO PROCEED WAS ISSUED ON DECEMBER 28, 1983, MAKING IT TOO EARLY TO EVALUATE PROGRESS.



CONTINUED PRELIMINARY ENGINEERING BUDGET & COST REPORT

PROFESSIONAL SERVICES CONTRACTS

January 1984

<u>Audit #</u>	<u>Contract</u>	<u>\$ Budget</u>	<u>\$ Actual</u>	<u>C=Completed or % Phys. Compl.</u>	<u>On Schedule</u>
<b>I. TRANSIT FACILITIES</b>					
2256	CWDD	360,000	\$348,626	C	Yes
2440-2	DMJM/PBQ&D	50,000	50,000	C	Yes
2284-3	Lindvall Richter	150,000	79,379	*	Yes
3056	L.A. Co. Museum	24,500	16,333	70	Yes
2510-2	Harry Weese	50,000	50,000	C	Yes
2900-3	Schimpeler Corradino	30,000	- 0 -	0	Yes
TOTAL TRANSIT FACILITIES		\$664,500	\$544,338	N/A	N/A
<b>II. SYSTEMS DESIGN &amp; ANALYSIS</b>					
2434-5	Booz-Allen & Hamilton	237,549	237,549	C	Yes
2439-2	Kaiser Engineers	50,000	50,000	C	Yes
3090	Cons. Fire Prot. Dist.	95,200	94,842	*	*
3136	Booz-Allen & Hamilton	1,000,000	153,637	26	No
3170	Mellon Institute	24,900	- 0 -	*	*
TOTAL SYSTEMS DESIGN & ANALYSIS		\$1,407,649	\$536,028	N/A	N/A
<b>III. PROGRAM CONTROL</b>					
3044	Sharon Clark	9,900	9,536	C	No
TOTAL PROGRAM CONTROL		\$ 9,900	\$ 9,536	N/A	N/A
<b>IV. PLANNING</b>					
3010	CRA	500,000	46,577	15	No
2797-2	Robert Harmon	50,000	50,000	C	Yes
3137	Jt. Dev. of Sta. Plans	573,000	-0-	20	Yes
3138	City Master Agreement	753,000	-0-	0	No
TOTAL PLANNING		\$1,876,000	\$ 96,577	N/A	N/A

A.B.DICK  
P&C 1.2  
2.29.84

CONTINUED PRELIMINARY ENGINEERING  
BUDGET AND COST REPORT (cont'd)

<u>Audit #</u>	<u>Contract</u>	<u>\$ Budget</u>	<u>\$ Actual</u>	C=Completed or % Phys. <u>Compl.</u>	<u>On Schedule</u>
IV. REAL ESTATE - YARD & SHOPS ACQUISITION					
2963	AT&SF Railway	44,000	31,458	*	*
3032	Flavell	50,000	36,716	*	*
3033	Lea Associates	50,000	39,329	*	*
2994	TICOR	8,300	8,300	C	Yes
TOTAL YARD & SHOPS ACQUISITION		\$152,300	\$115,803	N/A	N/A
OTHER REAL ESTATE					
3000	County of L.A.	24,900	-0-	*	*
3116	Chicago Title Services	50,000	-0-	*	*
3102	Robert Swanson	22,500	12,300	*	*
3161	Eugene Guterrez	4,000	-0-	*	*
3162	Robert Jackson	3,500	-0-	*	*
3163	Ralph Laurain	3,750	-0-	*	*
3164	David Zoraster	3,500	-0-	*	*
3175	TICOR	75,000	5,200	*	*
3189	Joseph Gary	5,000	2,163	*	*
3139	William Helpes	4,250	-0-	*	*
3182	Thomas Scabra	8,500	-0-	*	*
3180	Lowell Steward Assoc.	2,500	-0-	*	*
3150	Jack Joe	3,500	-0-	*	*
TOTAL OTHER REAL ESTATE		\$210,900	19,663	N/A	N/A
TOTAL REAL ESTATE		\$363,200	\$135,466	N/A	N/A
VI. LEGAL					
3009	MPR&T	24,500	-0-	*	*
2990	Bill Hecht	24,500	-0-	*	*
TOTAL LEGAL		\$ 49,000	\$ -0-	N/A	N/A

CONTINUED PRELIMINARY ENGINEERING  
BUDGET AND COST REPORT (cont'd)

<u>Audit #</u>	<u>Contract</u>	<u>\$ Budget</u>	<u>\$ Actual</u>	<u>C=Completed or % Phys. Compl.</u>	<u>On Schedule</u>
VII. MISCELLANEOUS CONTRACTS					
3030	Dillon Reed & Co.	24,900	-0-	*	*
3065	David B. Ashley	7,000	6,911	C	*
3096	First Boston Corp.	24,900	-0-	*	*
TOTAL MISCELLANEOUS CONTRACTS		\$ 56,800	\$ 6,911	N/A	N/A
VIII. GENERAL CONSULTANT					
2967	MRTC	39,302,960	12,493,688	N/A	N/A
TOTAL GENERAL CONSULTANT		\$39,302,960	\$12,493,688	N/A	N/A
GRAND TOTAL C.P.E.		\$43,730,009	\$13,772,544	N/A	N/A

\*

Note: Asterisked (\*) items indicate Peer Review Boards, General Managers Transit Technical Advisory Committee and "As Needed" Consultants for whom schedule status is not relevant.



CONTINUING PRELIMINARY ENGINEERING

UNOBLIGATED-RESERVED BUDGET AMOUNTS-PROFESSIONAL SERVICES CONTRACTS

Listed below are budget amounts reserved for Professional Services Contracts. In parenthesis is the date the budget amounts are expected to be committed (authorized for solicitation by the Board, advertised, or for which negotiations have been started pursuant to an approved purchase requisition). The list is subdivided into two parts: "Proposed Contract Changes" which identifies proposed amendments to current contracts and "Proposed New Contracts" which identifies dollar amounts in areas where new contracts will be needed.

On a monthly basis this list is updated reflecting the most current information on proposed new or amended contracts, dollar amounts, and expected commitment dates.

I. PROPOSED CONTRACT CHANGES:

TOTAL PROPOSED CONTRACT CHANGES \$ - 0 -

II. PROPOSED NEW CONTRACTS:

Transit Facilities

o Value Engineering Consultants (20 @ 24,900 each)	\$ 498,000	(03/84)
o Relocation Plan Consultant	60,000	(N/A)
o Dept. of Water & Power - Water Division	300,000	(05/84)
Power Division	<u>300,000</u>	(05/84)

Total Transit Facilities \$ 1,158,000

Real Estate - Yard & Shops Acq.

o Review Appraisals	\$ <u>7,950</u>	(02/84)
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Total Real Estate \$ 7,950

Date Prepared: 02/17/84  
Status Date: 01/31/84

Planning

o Modeling	\$ 250,000	(03/84)
o Joint Development of Stations	\$ 130,000	(02/84)
Total Planning	\$ 380,000	

Misc.

o Proposed Admin. of Owner Controlled Insurance Program	\$ 600,000	(3/84)
Total Misc.	\$ 600,000	

TOTAL PROPOSED NEW CONTRACTS \$ 2,145,950

GRAND TOTAL UNOBLIGATED -  
RESERVED BUDGET AMOUNTS FOR  
PROFESSIONAL SERVICES CONTRACTS \$ 2,145,950

CONTINUING PRELIMINARY ENGINEERING

CURRENT BUDGET: UNOBLIGATED-COMMITTED PROFESSIONAL SERVICES CONTRACTS

Listed below are Professional Services Contracts which are forecasted but unobligated as of the status date. In parenthesis is the date the contract is expected to be obligated (signed by the General Manager). The list is subdivided into two parts: "Proposed Contract Changes" which identifies proposed amendments to current contracts; "Proposed New Contracts" which in dollar amounts in areas where new contracts will be needed.

On a monthly basis this list is updated reflecting the most current information on proposed new or amended contracts, dollars amounts, and expected obligation dates.

I. PROPOSED CONTRACT CHANGES:

<u>Legal</u>		
o NBMB&W	\$ 15,000	(02/84)
Total Legal	\$ 15,000	
TOTAL PROPOSED CONTRACT CHANGES	\$ 15,000	

II. PROPOSED NEW CONTRACTS:

<u>Construction Management</u>		
o Construction Management	\$ 450,000	(03/84)
o W. H. Patterson	7,000	(02/84)
o Eugene Stann	<u>7,000</u>	(02/84)
Total Construction Management	\$ 464,000	
<u>Transit Facilities</u>		
o Western Union Telegraph	\$ 60,000	(02/84)
o Pacific Bell	200,000	(02/84)
o Cal Trans	<u>2,800,000</u>	(02/84)
Total Transit Facilities	\$ 3,060,000	
<u>Systems Design &amp; Analysis</u>		
o SRI (Computer Services)	<u>20,000</u>	(03/84)
Total SD & A	\$ 20,000	

Date Prepared: 02/17/84  
Status Date: 01/31/84

Planning

o General Planning Consultant Svcs. \$ 630,000 (03/84)

Total General Planning \$ 630,000

Other Real Estate

o Arthur Anderson \$ 1,550 (02/84)

o Norman Eichel 8,500 (02/84)

o Lee Hill 2,500 (02/84)

o Robert Swanson 15,000 (02/84)

Total Other Real Estate \$ 27,550

TOTAL PROPOSED NEW CONTRACTS \$ 4,201,550

GRAND TOTAL UNOBLIGATED-COMMITTED  
PROFESSIONAL SERVICES CONTRACTS \$ 4,216,550

**MTA LIBRARY**

SECTION III  
TOTAL PROJECT

## TOTAL PROJECT STATUS

JANUARY 1984

This section details the \$123.556 million budgeted for the Metro Rail Project. Expenditures to date total \$49.395 million.

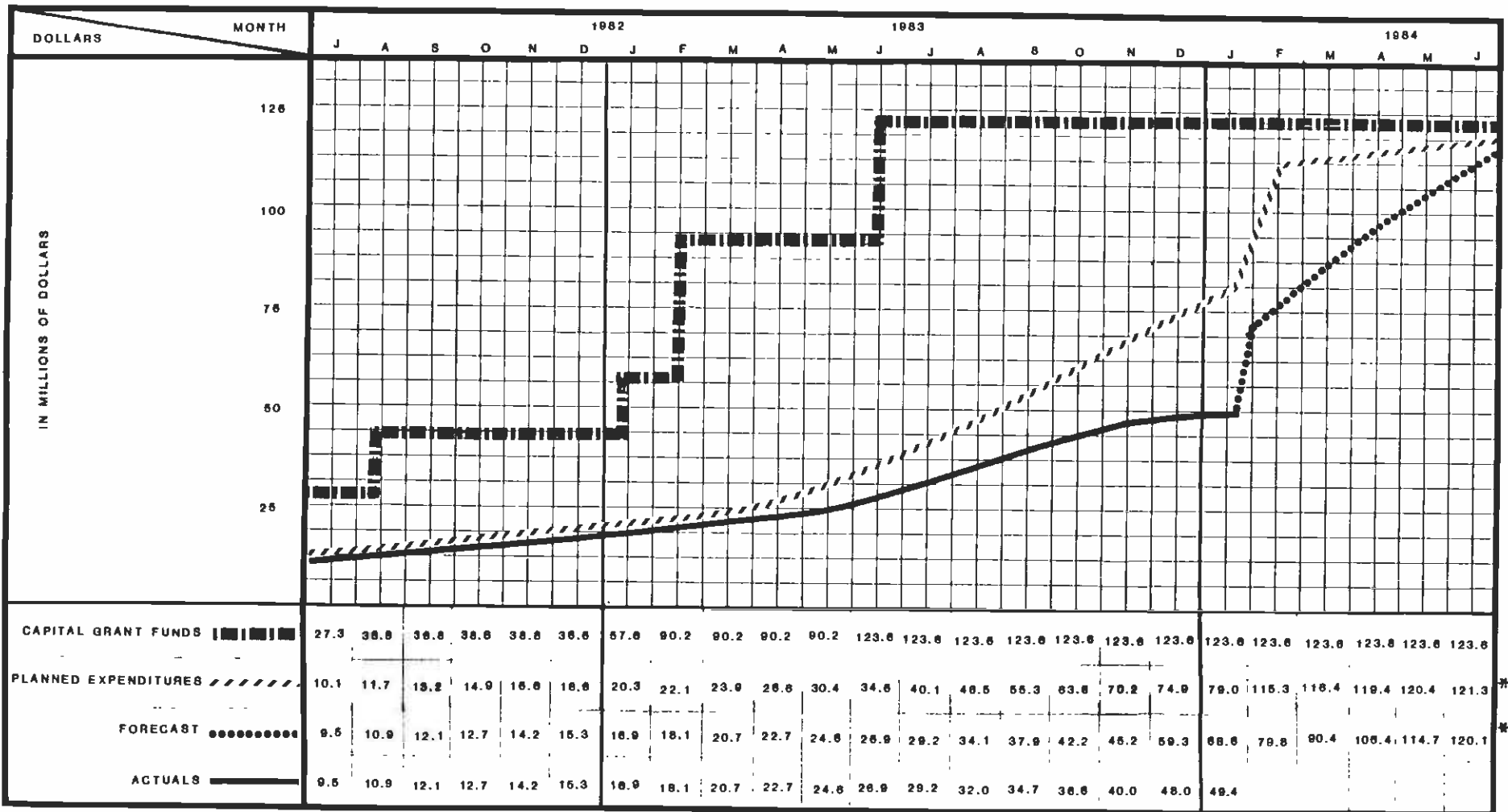
The accompanying graph illustrates the planned expenditures, \$79.0 million, against the actual expenditures, \$49.4 million. This variance is due primarily to expenditures in Professional Services being less than projected to date.

The status as of 1/31/84 is that SCRTD has \$1.209 million remaining which will be expended if any contracts, obligated or unobligated, are signed during the next five months.

A grant from LACTC has been awarded to RTD for \$2.5 million for the Master Agreement with CALTRANS. This grant will be reflected in next month's Cost/Schedule Status Report.

# RTD METRO RAIL PROJECT TOTAL PROJECT STATUS

JANUARY 1984



\* EXCLUDING CONTINGENCIES

-70-

03/07/84  
P&C(WP)-7.6

Date Prepared: 2/20/84  
Status as of: 1/31/84  
WBS #: 11DAA3113

SCRIPD METRO RAIL PROJECT  
TOTAL PROJECT BUDGET  
SUMMARY BY MACS CODE (\$000'S)

AFE*	(MACS ** CODE) DESCRIPTION	UNOBLIGATED			OBLIGATIONS TO DATE			CURRENT WKG. BUDGET (7=3+6)	EST. AT COMPLETION (8)	APPROVED BUDGET (9)	VARIANCE/ % (10=9-8)
		RESERVED (1)	COMMITTED (2)	TOTAL (3=1+2)	UNEXPENDED (4)	EXPENDED (5)	TOTAL (6=4+5)				
021											
A.	(20.02.01) Purchase of Support Autos	\$ 18	\$ - 0 -	\$ 18	\$ - 0 -	\$ 22	\$ 22	\$ 40	\$ 40	\$ 40	\$ 0/0%
B.	(20.02.02) Purchase/Installation of Support Equipment	75	50	125	20	1,169	1,189	1,314	1,314	1,314	0/0%
TBD	(20.02.07) Purchase/Installation of MIS Equipment	77	- 0 -	77	823	- 0 -	823	900	900	900	0/0%
TBD	(20.02.08) Purchase/Installation of Communications Equipment	100	- 0 -	100	- 0 -	- 0 -	- 0 -	100	100	100	0/0%
C.	(20.08.01) Professional Services Contracts	2,146	4,217	6,363	30,177	37,590	67,767	74,130	74,130	74,130	0/0%
D.	(20.15.02) Force Account Work	2,375	- 0 -	2,375	- 0 -	8,185	8,185	10,560	10,560	10,560	0/0%

- 71 -



03/07/84  
P&C(WP)-7.6

Date prepared: 2/20/84  
Status as of: 1/31/84  
WBS #: 11DAA3113

SCRIPD METRO RAIL PROJECT  
TOTAL PROJECT BUDGET  
SUMMARY BY MACS CODE (\$000'S)

AFE*	(MACS ** CODE) DESCRIPTION	UNOBLIGATED			OBLIGATIONS TO DATE			CURRENT WKG. BUDGET (7=3+6)	EST. AT COMPLETION (8)	APPROVED BUDGET (9)	VARIANCE/ % (10=9-8)
		RESERVED (1)	COMMITTED (2)	TOTAL (3=1+2)	UNEXPENDED (4)	EXPENDED (5)	TOTAL (6=4+5)				
E.	(20.15.90) Other Supporting Services	152	48	200	40	2,142	2,182	2,382	2,382	2,382	0/0%
F.	(32.00.00) Contingencies	1,209	- 0 -	1,209	- 0 -	- 0 -	- 0 -	1,209	- 0 -	1,209	1,209/0%
G.	(20.16.00) General & Administrative	15	13	28	92	171	263	291	291	291	0/0%
045	ROW Acquisition for Central Yard & Shops	32,478	- 0 -	32,478	36	116	152	32,630	32,630	32,630	0/0%
GRAND TOTAL		\$ 38,645	\$ 4,328	\$ 42,973	\$ 31,188	\$ 49,395	\$ 80,583	\$ 123,556	\$ 122,347	\$ 123,556	\$ 1,209/1%

\* AFE - Authorization for Expenditure  
\*\* MACS - Management and Control System