

October 2009

Metro Gold Line Eastside Extension



METRO GOLD LINE EASTSIDE EXTENSION

MONTHLY PROJECT STATUS REPORT

THE PREPARATION OF THIS DOCUMENT HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, FEDERAL TRANSIT ADMINISTRATION (FTA), UNDER THE FEDERAL TRANSIT ACT OF 1964, AS AMENDED, AND FUNDS FROM THE STATE OF CALIFORNIA.

OCTOBER 2009

TABLE OF CONTENTS

	Page No.
Project Overview & Status.....	1-2
Management Issues.....	2
Project Status	
• Project Scope.....	3
• Schedule	
○ Key Milestones Six-Month Lookahead	4
○ Project Master Schedule Critical Path.....	5-6
○ Critical Path Narrative.....	7
• Project Cost Status.....	8-9
• Financial/Grant Status.....	10-11
• Staffing.....	12-14
• Real Estate.....	15
• Environmental.....	16
• Community Relations.....	16
• Quality Assurance.....	17
• Safety.....	17
• Art Development.....	17
• Third Party.....	18-19
• CPUC Crossing.....	20
Contract C0802 Status	21
Contract C0803 Status	22
Contract E700051F Status.....	23
Contract C0893 Status	24
Contract P2550 Status	25
Construction Photographs	26-28
Appendices.....	29-32

PROJECT OVERVIEW & STATUS

The Metro Gold Line Eastside Extension Project is a six-mile, dual track light rail system with eight new stations and one station modification. The system originates at Union Station in downtown Los Angeles, where it connects with the Pasadena Gold Line, traveling generally east to Pomona and Atlantic Boulevards. The system travels over the State Route 101 Freeway and traverses the existing 1st Street Bridge over the Los Angeles River. The system travels south on Alameda Street and then east on 1st Street with two stations at Alameda and Utah Streets. East of the Los Angeles River and 1st and Utah Streets, the alignment transitions to tunnel for approximately 1.7 miles, and continues beneath 1st Street to underground stations at 1st Street and Boyle Avenue and 1st Street and Soto Street. The alignment returns to the surface near the intersection of 1st Street and Lorena Streets, then jogs to the south, transitioning to follow 3rd Street with stations at Indiana Street, Ford Boulevard, Mednik Avenue and Pomona and Atlantic Boulevards.

Metro's consultant, ARINC, continued integrating software updates into the new SCADA system, as required to correct testing issues. The consultant continues developing user and training manuals. ARINC staff has continued supporting Metro staff with SIT Phase II.

Bids for the Division 21 Body Shop construction were received this period and Metro staff initiated the bid evaluation period. The next milestone, contract award, is forecast for December 2009.

The C0803 contractor is nearing completion of the underground stations. At the Boyle Heights/Mariachi Plaza Station (MPS), the escalator/elevator supplier crews completed installing escalator cladding and skirts, and continued final adjustments in preparation for the State permit inspection. Punch list work continued this period and final cleanup began.

At the Soto Station (SS), the escalator/elevator supplier crews completed installing escalator cladding and skirts, and performed final adjustments in preparation for the State permit inspection. Punch list work continued this period and final cleanup began.

At-grade construction along Alameda and First Street has been completed. Contractor crews continue working towards completion of the remaining punch list items. Erection of street and guideway signage and street striping continued this period.

Construction along 3rd Street (Segments 5, 6 and 7) has been completed. ELRTC continues working on the final punch list, as well as erecting street and guideway signs.

In other areas of the alignment, at-grade station construction has been completed. The systems subcontractor tested all lighting, power and communications feeds to the Ticket Vending Machines (TVMs) at all stations. Punch list work and final cleanup of all stations began this period.

The testing phase of the project is nearing completion. The mechanical subcontractor completed elevator testing and began escalator testing in preparation for the State inspection. Coordination meetings with the contractor and the systems subcontractors have continued on a daily basis.

PROJECT OVERVIEW & STATUS

The systems subcontractor continued with SIT Phase I. The following tests were performed this period: test I-020, cable transmission system; test I-022, public address system/SCADA; test I-023, CCTV system/SCADA; test I-024, radio integration system/SCADA; test I-025, seismic detection system/SCADA; and test I-027, gas detection system/SCADA. Testing coordination meetings with Metro have continued on a daily basis. ELRTC continues to provide equipment training for Metro staff and also continued to submit test procedures and test reports, which will be attached to the safety certification application to the California Public Utilities Commission.

Metro Operations continued with SIT Phase II. SCADA testing continued for Train Control and Traction Power systems throughout the alignment as well as for the SCADA interface with environmental controls, radio, fire detection, CCTV and telephone systems. The seismic and gas detection system interface with SCADA has been completed. Also, uninterruptible power supply, fare collection and elevator systems interface with SCADA began this period.

The C0893 Atlantic/Pomona Parking Structure contractor completed pouring the slab-on-grade as well as the level 2 concrete structure walls and columns. The elevator structure second lift was also poured. The level 2 post tension deck rebar, tension tendons and forms were installed, and the deck poured this period as well. The contractor crews moved the support deck system structure to begin constructing level 3.

Installation of the Universal Fare System (UFS) equipment by Robnett Electric, Inc., (REI) a subcontractor to the equipment vendor, Cubic, Inc., is nearing completion. REI installed additional Stand Alone Validators at all aboveground stations and continued installation of fare barrier fencing and swing gates. At the underground stations, installation acceptance testing was conducted on installed faregate consoles. REI continued to perform TVM installation acceptance testing at all stations.

All Metro art pieces have been installed throughout all stations.

The Metro Rail Activation Group continued compilation of documentation required to file an application to obtain the Certificate of Occupancy, which is expected to be submitted early in November 2009. The training program for operators has been completed and Pre-Revenue Operations began early this period. No major problems have been reported. Rail activation coordination meetings with the contractor have continued on a weekly basis.

MANAGEMENT ISSUES

No Management Issues for the period ending October 2009.

PROJECT SCOPE

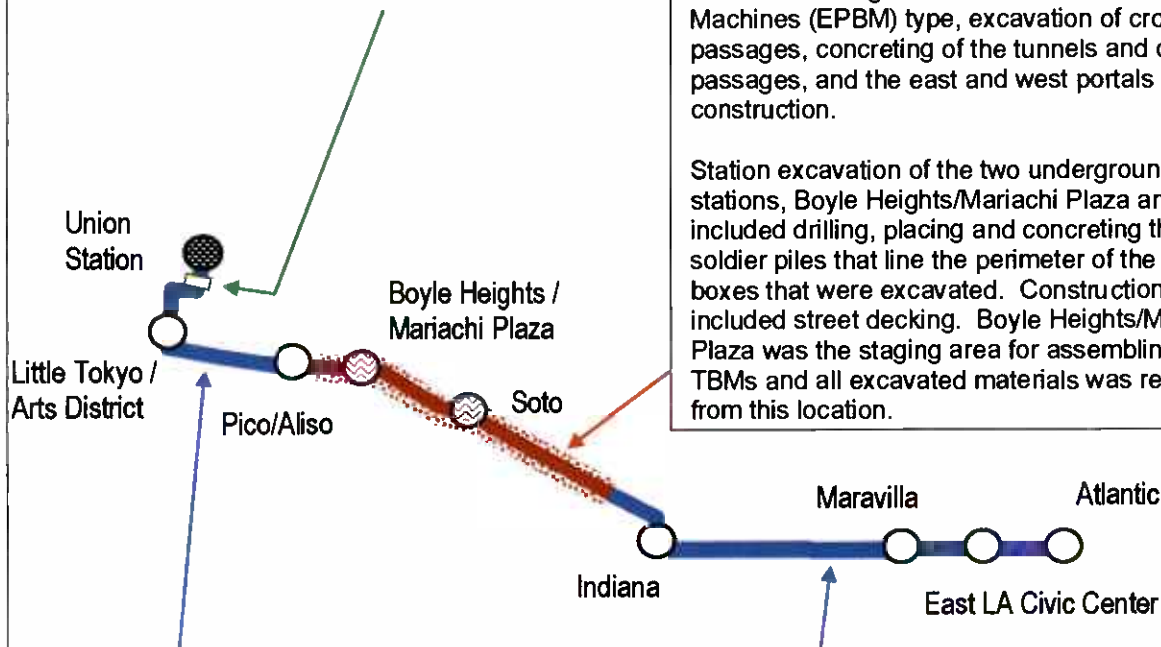
Contract C0802 – 101 Freeway Bridge

Overcrossing: The construction of the bridge was combined with Caltrans freeway improvements project. Caltrans administered the construction and the LACMTA provided oversight and was responsible for the construction costs of the bridge overcrossing.

Contract C0803 - Tunnel and Station

Excavation (Design/Bid/Build): Construction of the 1.7 mile tunnel segment included tunnel excavation using two Earth Pressure Balance Machines (EPBM) type, excavation of cross passages, concreting of the tunnels and cross passages, and the east and west portals construction.

Station excavation of the two underground stations, Boyle Heights/Mariachi Plaza and Soto, included drilling, placing and concreting the soldier piles that line the perimeter of the station boxes that were excavated. Construction also included street decking. Boyle Heights/Mariachi Plaza was the staging area for assembling the TBMs and all excavated materials was removed from this location.



Contract C0803 - Stations, Trackwork, and Systems (Design/Build): Construction of the two underground stations includes structural walls, station platforms, mezzanines, station entrances, and plazas, architectural finishes and all related mechanical and electrical work.

Construction of the six-mile alignment includes six at-grade stations, trackwork installation and testing for the entire alignment.

Systems installation and testing is inclusive of power systems, automatic train control, fire and emergency management, TRACS and communications systems. The contractor will be responsible for systems integration testing for the entire line segment prior to pre-revenue operations.

**Metro Gold Line Eastside Extension
Monthly Project Status Report**

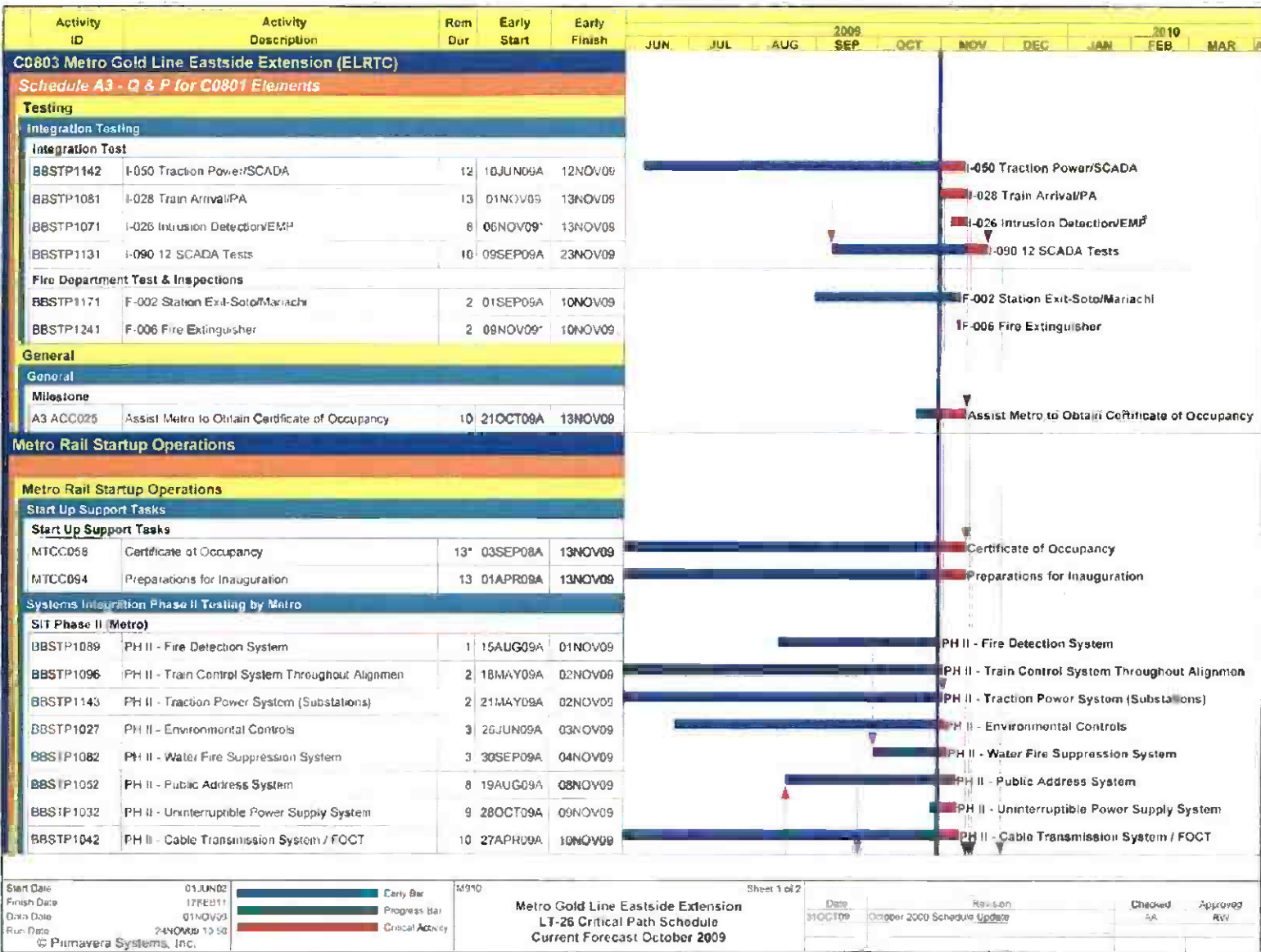
October 2009

KEY MILESTONE SCHEDULE SIX-MONTH LOOKAHEAD

	Milestone Date	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10
Began Pre-Revenue Operations	10/04/09	◆					
Completed At-Grade Stations Canopy Installation	10/06/09 *	○					
C0893 Contractor Completed Pomona/Atlantic Parking Structure Slab on Grade	10/19/09	■					
Metro Submit to the CPUC Application to Obtain the Certificate of Occupancy	11/04/09 *		◆				
Submit All Testing Procedures	11/04/09 *		○				
C0803 Contractor Complete Equipment and Systems Training for Metro Personnel	11/06/09		◆				
Install Universal Fare System Throughout the Alignment	11/13/09 *		◆				
Complete Underground Station Construction	11/15/09 *		○				
Complete At-Grade Station Construction	11/15/09 *		○				
C0803 Contractor Achieve Substantial Completion	11/15/09 *		○				
Revenue Operations Date (ROD)	11/16/09		◆				
Complete Systems Integration Testing Phase I (ELRTC)	11/23/09 *		○				
Begin System Assurance Reliability Testing	11/23/09 *		○				
Complete Systems Integration Testing Phase II (Metro)	11/30/09 *		◆				
Award Contract C0933 LRV Body Shop at Division 21	12/07/09 *			◆			
C0893 Contractor Complete Concrete Structure	12/21/09 *			■			
C0803 Contractor Complete Demobilization and Vacate Site (Milestone # 5)	12/22/09 *			○			
Issue NTP - Contract C0933 LRV Body Shop at Division 21	12/29/09 *			◆			
Begin Implementation of Additional Project Safety Measures Authorized by Metro's Board	01/04/10				◆		
Vacate Existing Div. 21 Building Before Turning it Over to the C0933 Contractor	02/26/10 *					◆	
<div> <div>◆ LACMTA Staff Milestone</div> <div>○ Eastside LRT Constructors</div> <div>FTA</div> <div>FTA Approval</div> <div>■ W. M. Klorman</div> </div> <div> <div>△ Other Agencies</div> <div>* New Date</div> <div>M Metro</div> <div>LACMTA Board Approval</div> </div>							

Six-month lookahead schedule for Contract C0803 reflects the contractor's current CPM schedule.

PROJECT MASTER SCHEDULE CRITICAL PATH (1 of 2)



PROJECT MASTER SCHEDULE CRITICAL PATH (2 of 2)



CRITICAL PATH NARRATIVE

Current Critical Path Analysis

The critical emphasis of the project is completing Systems Integration Testing (SIT) and Pre-Revenue Operations, which began early this month and will run for a minimum of five weeks. The C0803 contractor (ELRTC) is near completion of the SIT Phase I, which is the responsibility of ELRT, and continued working on punch list items throughout the alignment. Metro staff continued work on SIT Phase II.

The implementation plan for several rail safety enhancement modifications, including installation of additional pylon delineators between rail right-of-way and auto traffic, and installation of barriers between tracks to deter jaywalking was approved by Metro Board this period. This work is scheduled to be done once contract modifications are executed and will not have an impact to the Revenue Operations Date (ROD), which is planned for November 16, 2009.

**Metro Gold Line Eastside Extension
Monthly Project Status Report**

October 2009

PROJECT COST STATUS

**COST REPORT BY ELEMENT
ORIGINAL SCOPE ACTIVITIES
DOLLARS IN THOUSANDS**

ELEM- ENT	DESCRIPTION	ORIGINAL BUDGET	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		BUDGET / FORECAST VARIANCE
			PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
C	CONSTRUCTION	633,221	-	650,702	52	660,265	1,086	628,475	-	650,702	-
S	SPECIAL CONDITIONS	19,494	-	57,032	1,292	52,729	686	44,404	-	57,032	-
R	RIGHT-OF-WAY	40,358	-	37,681	-	37,779	-	37,048	-	37,681	-
P	PROFESSIONAL SERVICES	135,304	-	135,860	-	138,023	908	131,225	-	135,860	-
PC	PROJECT CONTINGENCY	60,254	-	7,401	-	-	-	-	-	7,401	-
PR	PROJECT REVENUE	(4,617)	-	(4,662)	-	(4,662)	-	(4,662)	-	(4,662)	-
SUBTOTAL		884,014	-	884,014	1,344	884,134	2,680	836,491	-	884,014	-
PF	PROJECT FINANCE COST	14,800	-	14,800	434	9,606	434	9,606	-	14,800	-
TOTAL		898,814	-	898,814	1,778	893,740	3,115	846,097	-	898,814	-

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH SEPTEMBER 2009

PROJECT COST ANALYSIS

Original Budget

The Full Funding Grant Agreement (FFGA) was adopted June 1, 2004 in the amount of \$898.8 million. The Original Budget reflects the adopted FFGA.

Current Budget and Current Forecast

The Current Budget and Forecast remain the same at \$898.8 million.

Commitments

The Commitments increased by \$1.8 million this period for executed modifications associated with Contract C0803 – Tunnel, Stations, Trackwork & Systems; 3rd Party Master Cooperative Agreements with the City of LA; and, Project Finance Cost interest payment. The \$893.7 million in Commitments to date represents 99.4% of the Original Budget.

Expenditures

Expenditures are cumulative through September 2009. The Expenditures increased by a total of \$3.1 million this period. In the Construction element there was an increase of \$1.1 million for costs associated with Contract C0803 – Tunnel, Stations, Trackwork and Systems, and the Light Rail Vehicles. In the Special Conditions element there was an increase of \$0.7 million for costs associated with environmental compliance services, utility expenses, Metro Systems Integration Oversight/Pre-Rev Ops, SCADA, and Metro Art Program. In the Professional Services element there was an increase of \$0.9 million for costs associated with Metro Project Administration, Design Support During Construction, and Construction Management Services. In the Project Finance Cost element there was an increase of \$0.4 million that reflects an interest payment. The September 2009 invoice for Contract C0803 in the amount of \$0.3 million was posted in the Metro's Financial Information System (FIS) on October 15, 2009 and will be reflected in the next reporting period. The \$846.1 million in Expenditures to date represents 94.1% of the Original Budget.

Metro Gold Line Eastside Extension Monthly Project Status Report

October 2009

PROJECT COST STATUS

COST REPORT BY ELEMENT CONCURRENT NON-FFGA PROJECT ACTIVITIES DOLLARS IN THOUSANDS

ELEMENT	DESCRIPTION	ORIGINAL BUDGET	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		BUDGET / FORECAST VARIANCE
			PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
C	CONSTRUCTION	18,000	3,615	49,649	136	45,589	943	36,728	3,615	49,649	-
S	SPECIAL CONDITIONS	-	-	3,244	-	2,660	67	2,549	-	3,244	-
R	RIGHT-OF-WAY	-	-	648	-	349	19	187	-	648	-
P	PROFESSIONAL SERVICES	-	392	4,307	465	4,242	164	3,178	392	4,307	-
PC	PROJECT CONTINGENCY	-	493	2,143	-	-	-	-	493	2,143	-
PR	PROJECT REVENUE	-	-	(4,087)	209	(4,896)	-	(279)	-	(4,087)	-
SUBTOTAL		18,000	4,500	55,903	809	47,944	1,193	42,364	4,500	55,903	-
PF	PROJECT FINANCE COST	-	-	-	-	-	-	-	-	-	-
TOTAL		18,000	4,500	55,903	809	47,944	1,193	42,364	4,500	55,903	-

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH SEPTEMBER 2009

PROJECT COST ANALYSIS

Original Budget

The Metro Board adopted the Original Budget of \$18.0 million on March 24, 2005.

Current Budget and Current Forecast

The Current Budget and Forecast increased by \$4.5 million this period to reflect the Board approved budget for Rail Safety Enhancements.

Commitments

The Commitments increased by \$0.8 million primarily for executed modifications associated with Rail Safety Enhancements and Photo Enforcement. The \$47.9 million in Commitments to date represents 85.8% of the Current Budget.

Expenditures

Expenditures are cumulative through September 2009. The Expenditures increased by \$1.2 million this period for costs associated with the construction of the Pomona/Atlantic Parking Structure and Metro Project Administration. The September 2009 invoice for Contract C0803 in the amount of \$0.3 million was posted in the Metro's Financial Information System (FIS) on October 15, 2009 and will be reflected in the next reporting period. The \$42.4 million in Expenditures to date represents 75.8% of the Current Budget.

FINANCIAL/GRANT STATUS – ORIGINAL SCOPE ACTIVITIES

OCTOBER 2009

STATUS OF FUNDS BY SOURCE

SOURCE	(A) ORIGINAL BUDGET	(B) TOTAL FUNDS ANTICIPATED	(C) TOTAL FUNDS AVAILABLE	(D) COMMITMENTS \$	(D/B) %	(E) EXPENDITURES \$	(E/B) %	(F) BILLED TO FUNDING SOURCE \$	(F/B) %
FEDERAL - SECTION 5309 NEW START	\$490.700	\$490.700	\$481.117	\$490.700	100%	\$443.201	90% (1)	\$441.395	90%
FED - SECTION 5309 FIXED GUIDEWAY	\$23.100	\$12.000	\$12.000	\$12.000	100%	\$12.000	100%	\$12.000	100%
FEDERAL - CMAQ	\$10.300	\$10.300	\$10.276	\$10.276	100%	\$10.276	100%	\$10.276	100%
REGIONAL IMPROVEMENT PROG - FED	\$179.600	\$4.600	\$4.600	\$4.600	100%	\$4.600	100%	\$4.600	100%
REGIONAL IMP PROG - STATE	\$0.600	\$175.600	\$175.600	\$175.600	100%	\$175.600	100%	\$175.600	100%
STATE TCRP	\$45.000	\$45.000	\$45.000	\$45.000	100%	\$45.000	100%	\$45.000	100%
PROP A 35% / PROP C 40%/PROP 25%	\$124.614	\$135.714	\$135.714	\$135.858	100%	\$135.714	100%	\$135.714	100%
LEASE REVENUES	\$10.100	\$10.100	\$10.100	\$10.100	100%	\$10.100	100%	\$10.100	100%
ACCRUALS									
SUB-TOTAL	\$884.014	\$884.014	\$874.407	\$884.134	100%	\$836.491	95%	\$834.685	94%
PROP A / PROP C (INTEREST COST)	\$14.800	\$14.800	\$9.606	\$9.606	65%	\$9.606	65%	\$6.671	45%
TOTAL	\$898.814	\$898.814	\$884.013	\$893.740	99%	\$846.097	94%	\$841.356	94%

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH SEPTEMBER 2009.

STATUS OF FUNDS ANTICIPATED

FEDERAL SECTION 5309 NEW STARTS: LACMTA submitted a grant application in June 2009 for \$66.7M, as part of the American Reinvestment and Recovery Act of 2009, in advance of incoming future federal funds. The grant was approved on July 10, 2009 and funds are available for drawdown.

**FINANCIAL/GRANT STATUS
CONCURRENT NON-FFGA PROJECT ACTIVITIES**

OCTOBER 2009

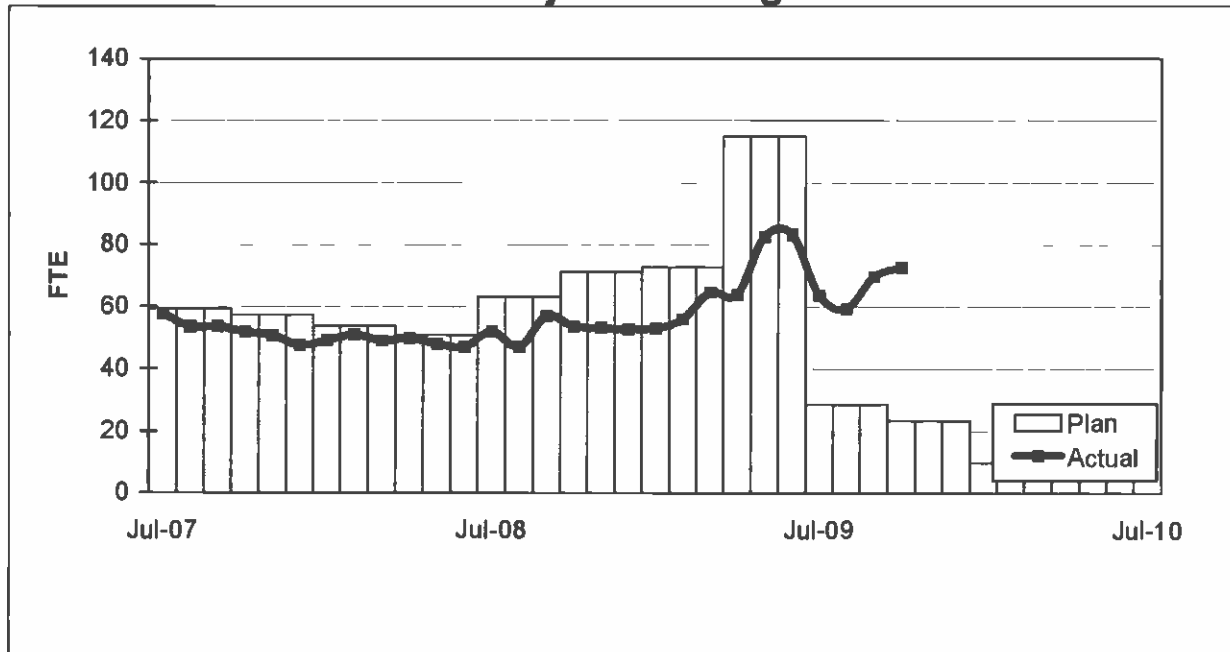
STATUS OF FUNDS BY SOURCE

SOURCE	(A) APPROVED BUDGET	(B) TOTAL FUNDS ANTICIPATED (1)	(C) TOTAL FUNDS AVAILABLE	(D) COMMITMENTS \$	(D/B) %	(E) EXPENDITURES \$	(E/B) %	(F) BILLED TO FUNDING SOURCE \$	(F/B) %
PROP C 40%	\$14,000	\$22,400	\$22,400	\$21,898	98%	\$18,277	82%	\$12,205	54%
PROP C 10%	\$4,000	\$4,300	\$4,300	\$1,960		\$0,001		\$0,001	
STATE TCR	\$0,000	\$24,086	\$24,086	\$24,086	100%	\$24,086	100%	\$24,086	100%
PROP A 35%	\$0,000	\$5,117	\$5,117	\$0,000	0%	\$0,000	0%	\$0,000	0%
TOTAL	\$18,000	\$55,903	\$55,903	\$47,944	86%	\$42,364	76%	\$36,292	65%

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH SEPTEMBER 2009.

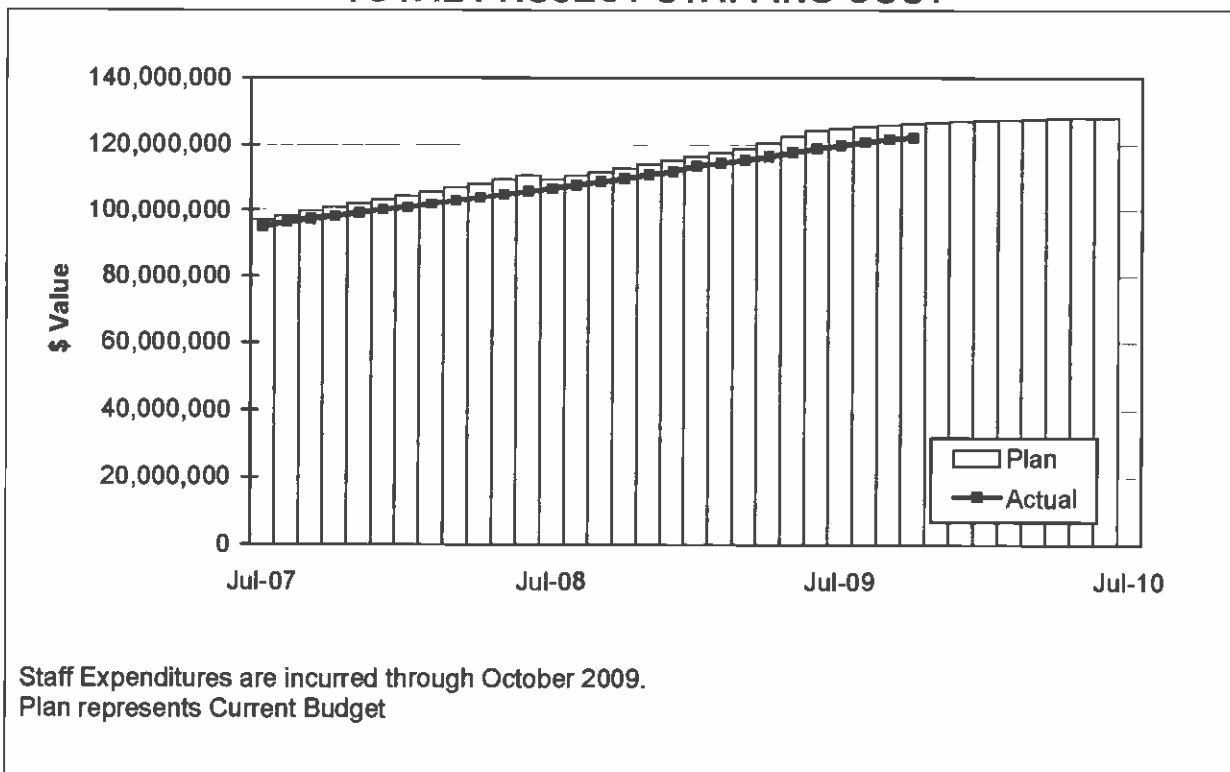
STAFFING STATUS

Total Project Staffing - FTES



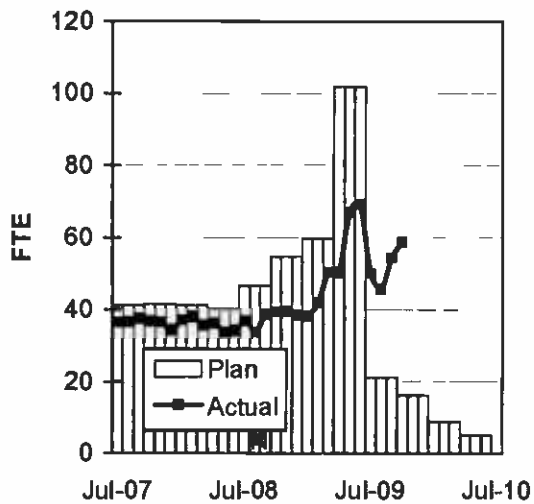
STAFFING STATUS

TOTAL PROJECT STAFFING COST

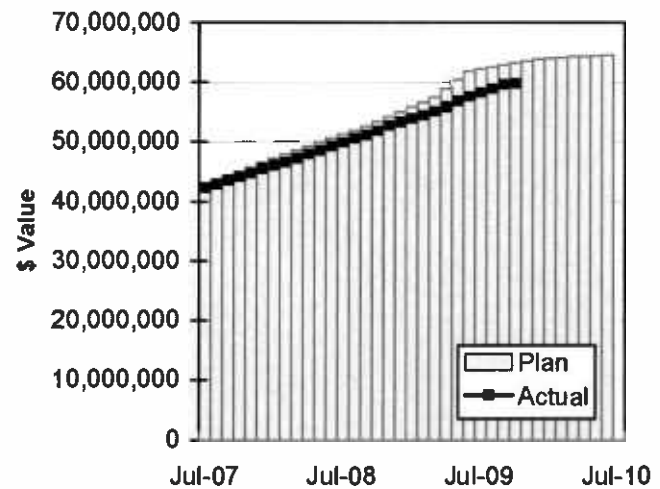


STAFFING STATUS

DIRECT AGENCY - FTES

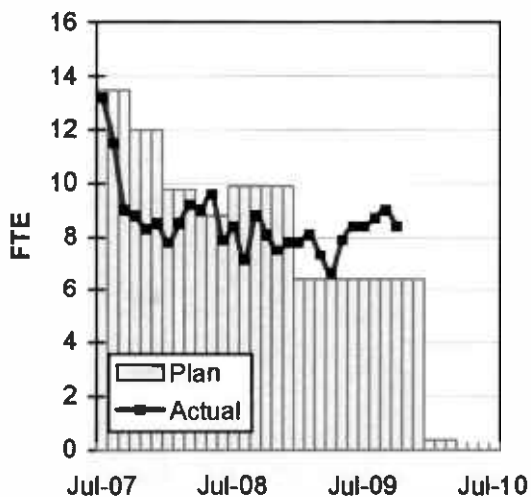


DIRECT AGENCY - COST

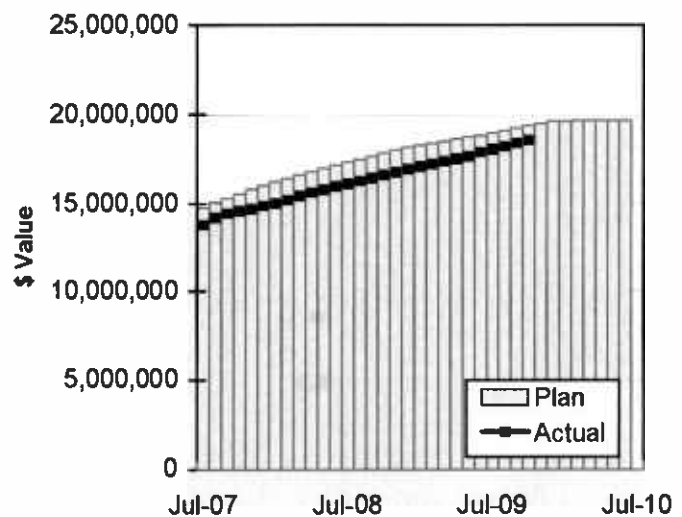


Staff Expenditures are incurred through October 2009.
Plan represents Current Budget

CONSTRUCTION MGMT - FTES



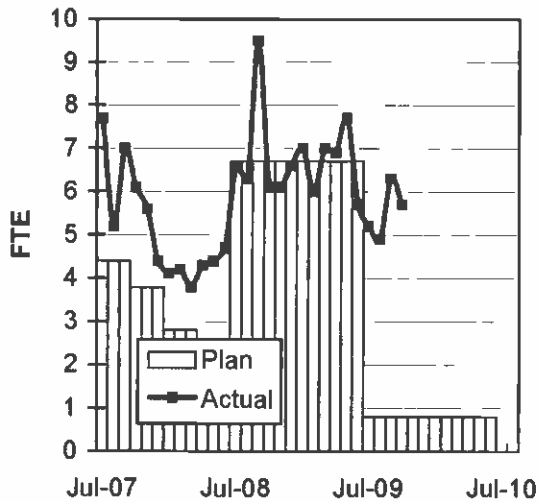
CONSTRUCTION MGMT - COST



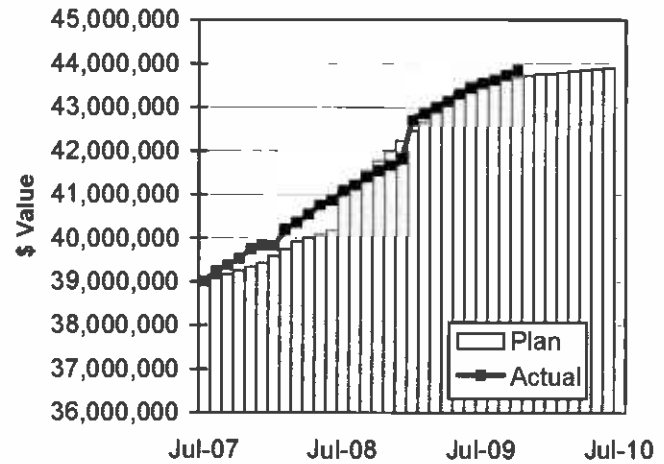
Staff Expenditures are incurred through October 2009.
Plan represents Current Budget.

STAFFING STATUS

ELRT PARTNERS - FTES



ELRT PARTNERS - COST



Staff Expenditures are incurred through October 2009.
Plan represents Current Budget

REAL ESTATE STATUS

- For C0803, the tunnel portion of the alignment, 40 parcels were required for acquisition (11 full takes, 4 partial takes, 20 sub-surface easements/temporary construction easements, 3 sub-surface easements/building protection, and 2 building protections).
- For C0803, the at-grade portion of the alignment, 27 parcels were required for acquisition (17 full takes, 9 partial takes and 1 surface easement). Nine parcels were required for the LAUSD Ramona Opportunity High School site reconfiguration.
- For C0802, 2 parcels were required (1 surface easement and 1 full take parcel).
- Two Encroachment Permits were obtained from Caltrans for the C0803-Tunnel. Three street closures were obtained from the City of LA.

REAL ESTATE ACQUISITION SCHEDULE SUMMARY

<i>Number of Parcels</i>				Behind Schedule	
					Avg. Calendar Days
	Required	Acquired	On Schedule	Number	
This Period	69	69	0	0	0
Last Period	69	69	0	0	0

REAL ESTATE STATUS TO DATE BY CONTRACT ACQUISITION PHASE

CONTRACT NO.	Number of Parcels (A+B+C+D+E)	Agreements Signed (A)	Parcels in Condemnation (B)	Under Negotiation (C)	In Appraisal Process (D)	Inactive Parcels (E)	Parcels Available
C0803-Tunnel	40	40	0	0	0	0	40
C0803-At-Grade	27	27	0	0	0	0	27
C0802	2	2	0	0	0	0	2
TOTAL	69	69	0	0	0	0	69
LAST PERIOD	69	69	0	0	0	0	69

ENVIRONMENTAL STATUS

- Metro issued a CWO to ICF Jones and Stokes to perform noise and vibration monitoring along the Metro Gold Line Extension to assess any impacts during the operational phase of the project.

COMMUNITY RELATIONS STATUS

- Provided construction updates at the Executive and Review Advisory Committee Meetings.

QUALITY ASSURANCE STATUS

- Continued to review the Design Builder's Monthly Asphalt, Concrete Compressive Strength and Soils Compaction test report summaries - areas of concern are coordinated to resolution with the onsite lab representative.
- Conducted verification testing of Design Builder's special inspections utilizing an independent testing laboratory technician; no issues to report.
- Monitored Pomona/Atlantic parking structure activities.

SAFETY STATUS

- Participated in weekly Track Allocation Meeting with Metro Operations in preparation for ROD.
- Conducted Gang Awareness Training for Metro Security and Metro Operations personnel.
- Monitored construction activities on a daily basis, including weekends, to ensure safety compliance with Contract Specification.
- Held meetings with MTA's Security and LA County Sheriff's Department personnel to discuss various security issues concerning the transition from construction to revenue operations.
- ELRTC and their subcontractors reported zero incidents and 27,272 work hours for the month of October 2009. A total of forty-two (42) recordable incidents have occurred Project-to-Date. Total Project-to-Date work hours are 4,349,120. Injury Rates for Recordable incidents are 1.9; well below the published incident rate of 5.3 for recordable cases.

ART DEVELOPMENT STATUS

- Station art program completed. Artworks installed at all stations.

**Metro Gold Line Eastside Extension
Monthly Project Status Report**

October 2009

THIRD PARTY AGREEMENT STATUS

Third Party	Type of Agreement	Forecast Execution Date	Required Need Date	Status/ Comments
City of Los Angeles	Amendment	Completed	N/A	Executed December 2002.
Los Angeles County	Master	Completed	N/A	Executed April 2003.
Caltrans (All Projects)	Master	Completed	N/A	Executed July 2003.
Caltrans (101)	Design	Completed	N/A	Executed July 2003.
Caltrans (101)	Construction	Completed	N/A	Executed September 2003.
Caltrans (101)	Maintenance	11/09	Project Completion	The initial negotiation meeting was held on 1/9/03. LACMTA received a draft from Caltrans on 1/22/04. LACMTA reviewed and submitted the agreement to Caltrans on 2/10/04. A follow up call was made on 10/20/05 but no response to date.
LADWP (Water/Power)	Amendment	11/09	*6/04	LACMTA Management, County Counsel, and LACMTA Board staff have participated in meetings with DWP to complete negotiations, since the "Deadline and Delay" clause is not acceptable to LADWP. Alternative language was forwarded to LACMTA Management and County Counsel for review on 10/7/05. LACMTA CEO is to speak with LADWP CEO.
So. Cal. Edison Co.	Amendment	N/A	N/A	SCE Executive Legal Branch stated on 2/25/05 they have no intention of signing agreement.
The Gas Company	Amendment	Completed	N/A	Executed May 2005.
SBC/AT & T	Amendment	Completed	N/A	Executed May 2005. SBC has been acquired by AT&T and has formed a new corporation TCM for work in Southern California. A new agreement has been negotiated with Metro and TCM, which was approved by the Metro Board in April. The new agreement mirrors the SBC agreement except for some minor changes in the insurance language.
Adelphia Cable Company	Amendment	11/09	*6/04	LACMTA received a draft from Adelphia for review. LACMTA Management and County Counsel reviewed the amendment and returned the document to Adelphia with comments. Adelphia's Legal Department is reviewing the document and follow-up calls were made on 10/20/05 and 11/16/05.
Calif Wtr Service Co	Master	Completed	N/A	Executed May 2005.
L.A. County Sanitation Districts	N/A	N/A	N/A	In a letter dated 3/26/03, the Sanitation District stated that there is not a need for an agreement since there are no relocations related to their facilities. The Sanitation District will review submittals related to encasements of their facilities on Indiana Street.
MCI Worldcom	Amendment	Completed	N/A	Executed May 2005.
Metropolitan Wtr Dist	Amendment	Completed	N/A	Executed May 2003.

THIRD PARTY AGREEMENT STATUS

Third Party	Type of Agreement	Forecast Execution Date	Required Need Date	Status/ Comments
Verizon Wireless	Amendment	11/09	*6/04	The revised draft amendment was hand delivered to Verizon on 11/19/03 and an electronic copy was sent to them 2/19/04. Verizon did respond with comments, which were reflected in a revised agreement sent 4/05. Verizon legal is completing final review. Follow up calls were made on 10/20/05 and 11/16/05. Verizon has now joined MCI and once the legal work is complete in late February 2006, LACMTA may be able to use the MCI Agreement for Verizon work. E-mailed MCI Agreement to Verizon Representative for consideration as overall agreement covering Verizon and MCI as the new Verizon.
GST	N/A			Facilities are not impacted by Eastside Construction
Exxon Mobil Oil Company	N/A			Facilities are not impacted by Eastside Construction
Pacific Pipeline Company	N/A			Facilities are not impacted by Eastside Construction
Kinder Morgan Pipeline Company	N/A			Facilities are not impacted by Eastside Construction
Tosco Refining Company	N/A			Facilities are not impacted by Eastside Construction
Equilon Pipeline Company	N/A			Facilities are not impacted by Eastside Construction
Level 3 Communications	N/A			Facilities are not impacted by Eastside Construction
Broadwing Communications	N/A			Facilities are not impacted by Eastside Construction
Eller Media	N/A			Facilities are not impacted by Eastside Construction

* Work has been performed under the current MCA.

**Metro Gold Line Eastside Extension
Monthly Project Status Report**

October 2009

CPUC CROSSING SUMMARY

Batch	Application Status	Initial Package Submittal to MTA	Field Diagnostic Meeting	Revised Drawings Due to MTA	Draft Write-up to MTA	Draft Package Submittal to PUC Local office and Agencies	Final Package Submittal to PUC	CPUC Final Approval
1	Complete	8/5/02	8/12/02	8/28/02	9/6/02	9/6/02	9/6/2002	Approved
2	Complete	10/4/02	10/11/02	10/25/02	11/6/02	11/22/02	11/22/2002	Approved
3	Complete	2/6/03	2/27/03	3/10/03	1/27/03	4/11/02	4/18/2003	Approved
4	Complete	12/14/02	1/15/03	1/29/03	11/13/02	5/5/03	6/18/2003	Approved
4A	Complete	1/24/03	1/29/03	3/14/03	2/7/03	9/5/03	1/23/2004	Approved
6	Complete	3/19/03	3/26/03	6/20/03	2/7/03	9/5/03	9/12/2003	Approved
7	Complete	12/11/02	12/18/02	3/31/03	2/7/03	5/5/03	7/25/2003	Approved
8	Complete	11/26/02	12/18/02	3/31/03	11/15/02	6/6/03	5/21/2004	Approved
9	Complete	1/20/03	1/29/03	3/31/03	11/22/02	8/29/03	9/12/2003	Approved
10	Complete	12/11/03	12/18/02	3/10/03	11/22/02	5/5/03	8/29/2003	Approved
11	Complete	2/13/03	2/27/03	4/18/03	12/6/02	6/6/03	8/29/2003	Approved
12	Complete	2/13/03	2/27/03	4/18/03	12/13/02	6/6/03	9/5/2003	Approved
13	Complete	2/6/03	2/20/03	4/18/03	2/21/03	6/6/03	9/1/2004	Approved
14	Complete	1/8/03	1/15/03	3/14/03	11/12/02	8/29/03	10/30/2003	Approved
15	Complete	2/26/03	N/A	N/A	2/21/03	6/6/03	8/29/2003	Approved
16	Complete	2/26/03	N/A	N/A	2/28/03	6/6/03	8/29/2003	Approved
17	Complete	1/8/03	1/15/03	N/A	2/14/03	5/5/03	6/13/2003	Approved
18	Complete	1/8/03	1/15/03	3/20/03	2/14/03	5/5/03	6/13/2003	Approved
Agency Responsible		ELRTP	MTA	ELRP	ELRTP	MTA	MTA	

Batch No. 5 has been removed, as the Midway Yard will be utilized.

SHADED AREAS REPRESENTS COMPLETION

All applications are approved.

Batch Descriptions	
1 1st / Alameda	10 3rd / Ford
2 Alameda / Temple	3rd / McDonnell
1st / Hewitt	3rd / Arizona
Ped Crossings @ 1st / Alameda Station	11 3rd / Mednik
3 1st / Vignes	3rd / Civic Center Drive
4 1st / Lorena	3rd / La Verne
4A Indiana/1st	12 3rd / Driveways to Sheriff's Station
Indiana/3rd	3rd / Wood / Via Corona / Pomona / Beverly
Indiana Pedestrian Crossing	13 3rd / 60 Fwy WB Connector
6 1st / Mission	3rd / 60 Fwy over ELRT
1st / Anderson	3rd / 710 Fwy SW Connector
1st / Clarence	3rd / Bridge over 710 Fwy
1st / Utah	3rd / 710 Fwy SE Connector
1st/Gless Pedestrian Crossing	14 Union Station Service Road
7 3rd / Rowan	15 1st / Santa Fe
8 3rd / Gage	1st / Myers
3rd / 60 Fwy WB Ramps	16 1st / MTA
3rd /Downey	1st / BNSF
	1st / Union Pacific

CONTRACT CO802 STATUS

Description: 101 Freeway Bridge Overcrossing Contractor: Brutoco Engineering & Construction	Contract No. C0802 Status as of: October 30, 2009																								
Progress/Work Completed: <ul style="list-style-type: none"> * Bridge work was completed in March 2007 * Plant Maintenance period achieved November 2007 Areas of Concern: <ul style="list-style-type: none"> * None 	Major Activities (In Progress): <ul style="list-style-type: none"> * None Major Activities Next Period: <ul style="list-style-type: none"> * None 																								
Schedule Summary: Date of Award: 09/07/04 Notice to Proceed: 09/22/04 Original Contract Duration: 700 CD Current Contract Duration: 775 CD Elapsed Time from NTP: 904 CD * * Note: Elapsed time to Milestone # 1 completion	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th>Original Contract Dates</th> <th>Time Extension</th> <th>Current Contract</th> <th>Forecast</th> <th>Variance CDs</th> </tr> </thead> <tbody> <tr> <td>Notice to Proceed</td> <td>09/22/04</td> <td>0</td> <td>09/22/04</td> <td>09/22/04</td> <td>0</td> </tr> <tr> <td>Milestone 1 - Complete Abutment No. 10</td> <td>06/26/06</td> <td>49</td> <td>08/14/06</td> <td>03/15/07</td> <td>-213</td> </tr> <tr> <td>Milestone 2- Complete All Work Without Plant Establishment</td> <td>08/23/06</td> <td>75</td> <td>11/06/06</td> <td>08/06/07</td> <td>-273</td> </tr> </tbody> </table>		Original Contract Dates	Time Extension	Current Contract	Forecast	Variance CDs	Notice to Proceed	09/22/04	0	09/22/04	09/22/04	0	Milestone 1 - Complete Abutment No. 10	06/26/06	49	08/14/06	03/15/07	-213	Milestone 2- Complete All Work Without Plant Establishment	08/23/06	75	11/06/06	08/06/07	-273
	Original Contract Dates	Time Extension	Current Contract	Forecast	Variance CDs																				
Notice to Proceed	09/22/04	0	09/22/04	09/22/04	0																				
Milestone 1 - Complete Abutment No. 10	06/26/06	49	08/14/06	03/15/07	-213																				
Milestone 2- Complete All Work Without Plant Establishment	08/23/06	75	11/06/06	08/06/07	-273																				
Physical Percent Complete: Physical completion ** as of this reporting period is: 100.00% ** Note: Physical completion assessment reflects work completed and invoice amount shown in Caltrans Monthly Progress/Expense Report No. 30.	Cost Summary: \$ In millions <table style="width: 100%;"> <tr> <td style="width: 80%;">1. Award Value:</td> <td style="text-align: right;">6.42</td> </tr> <tr> <td>2. Executed Modifications:</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>3. Approved Change Orders:</td> <td style="text-align: right;">0.00</td> </tr> <tr> <td>4. Current Contract Value (1+2+3):</td> <td style="text-align: right;">6.42</td> </tr> <tr> <td>5. Incurred Cost:</td> <td style="text-align: right;">6.42</td> </tr> </table>	1. Award Value:	6.42	2. Executed Modifications:	0.00	3. Approved Change Orders:	0.00	4. Current Contract Value (1+2+3):	6.42	5. Incurred Cost:	6.42														
1. Award Value:	6.42																								
2. Executed Modifications:	0.00																								
3. Approved Change Orders:	0.00																								
4. Current Contract Value (1+2+3):	6.42																								
5. Incurred Cost:	6.42																								

CONTRACT C0803 STATUS

Description: Tunnel, Stations, Trackwork & Systems Contractor: Eastside LRT Constructors		Contract No. C0803 Status as of: October 30, 2009															
Progress/Work Completed: <ul style="list-style-type: none">• Completed elevators final adjustment and testing at Mariachi Plaza Station (MPS) and Soto Station (SS)• Completed cladding work at MPS and SS• Completed electrical and mechanical Local Field Acceptance Test (LFAT) throughout the alignment• Tested cable transmission, radio and public address systems• Tested seismic and gas detection systems• Tested AC / EMP at MPS, SS and East Portal Areas of Concern: <p>The contractor has slipped completion of Milestone # 1 by 230 calendar days. The contractor is focusing in completing systems integration testing to support pre-revenue operations and ROD.</p>		Major Activities (In Progress): <ul style="list-style-type: none">• Escalators final adjustment and testing at MPS and SS• Architectural finishes at MPS and SS• Resolution of punch list items throughout the alignment• Fire Department inspections• Systems Integration Testing (SIT) throughout the alignment• Continue SCADA system support Major Activities Next Period: <ul style="list-style-type: none">• Test roll up doors at MPS and SS• State inspection of escalators at MPS and SS• Test intrusion detection system• Test CCTV system• Complete SIT Phase I• Complete final punch list items throughout the alignment• Achieve substantial completion - Milestone # 1• Final clean up throughout the alignment															
Schedule Summary:			Original Contract Dates	Time Extension	Current Contract	Forecast	Variance CDs										
Date of Award:	06/01/04	Notice to Proceed	07/01/04	0	07/01/04	07/01/04	0										
Notice to Proceed:	07/01/04	Milestone 1 - Contract Completion. Complete all systems integration testing and ready for MTA's pre-revenue operation testing.	12/31/08	91	04/01/09	11/17/09	-230										
Original Contract Duration:	1795 CD	Milestone 3 - Complete Universal Fare System Equipment area.	04/30/08	255	01/10/09	01/30/09	-20										
Current Contract Duration:	1887 CD	Milestone 5 - Vacate all staging areas and turn over to MTA.	05/30/09	92	08/30/09	12/22/09	-114										
Elapsed Time from NTP:	1948 CD	Milestone 6 - Complete design and construction of Option D work.	09/28/04	0	09/28/04	09/28/04	0										
Option D Contract duration	90 CD Complete																
Physical Percent Complete: <p>Physical completion * as of this reporting period is: 99.95%</p> <p>* Note: Physical completion assessment reflects work completed and work in progress.</p>		Cost Summary: \$ In millions <table><tr><td>1. Award Value:</td><td>600.45</td></tr><tr><td>2. Executed Modifications:</td><td>17.54</td></tr><tr><td>3. Approved Change Orders:</td><td>0.00</td></tr><tr><td>4. Current Contract Value (1+2+3):</td><td>617.98</td></tr><tr><td>5. Incurred Cost:</td><td>603.28</td></tr></table>						1. Award Value:	600.45	2. Executed Modifications:	17.54	3. Approved Change Orders:	0.00	4. Current Contract Value (1+2+3):	617.98	5. Incurred Cost:	603.28
1. Award Value:	600.45																
2. Executed Modifications:	17.54																
3. Approved Change Orders:	0.00																
4. Current Contract Value (1+2+3):	617.98																
5. Incurred Cost:	603.28																

CONTRACT E700051F STATUS

Description: 1st Street Bridge Strengthening Contractor: The Griffith Company		Contract No. E700051F Status as of: October 30, 2009					
Progress/Work Completed: * Bridge turned over to Metro on October 26, 2007 Areas of Concern: * None		Major Activities (In Progress): * None Major Activities Next Period: * None					
Schedule Summary: Date of Award: 01/19/07 Notice to Proceed: 02/06/07 Original Contract Duration: 251 CD Current Contract Duration: 281 CD Elapsed Time from NTP: 281 CD			Original Contract Dates	Time Extension	Current Contract	Forecast	Variance CDs
		Notice to Proceed	02/06/07	0	02/06/07	02/06/07	0
		Milestone 1 - Substantial Completion	10/15/07	30	11/14/07	11/14/07	0
Physical Percent Complete: Physical completion as of 11/14/07: 100.00% * * As reported by the City of Los Angeles, Department of Contract Administration		Cost Summary: \$ In millions 1. Award Value: * 4.26 2. Executed Modifications: 0.00 3. Approved Change Orders: 0.05 4. Current Contract Value (1+2+3): 4.31 5. Incurred Cost: 4.31 * City of Los Angeles					

CONTRACT C0893 STATUS

Description: Pomona Atlantic Parking Structure Contractor: W. M. Klorman Construction Corp.		Contract No. C0893 Status as of: October 30, 2009					
Progress/Work Completed: <ul style="list-style-type: none"> * Poured concrete slab on grade in area "C" * Poured level 2 shear walls and columns * Poured Level 2 suspended slab deck * Poured level 2 elevator structure * Suspended deck post tensioning in areas "A" and "B" * Completed CMU interior ramp walls at level 1 Areas of Concern: <ul style="list-style-type: none"> * None 		Major Activities (In Progress): <ul style="list-style-type: none"> * False work for level 3 suspended slab * Cure and strip level 2 suspended slab deck in area "C" * Level 3 suspended slab deck forms, embeds and rebar * Install suspended slab stress tendons in level 3 * Elevator level 3 structure forms and rebar * Continued fabrication of elevator, mechanical and security equipment Major Activities Next Period: <ul style="list-style-type: none"> * Pour level 3 suspended slab * Pour level 2 columns in area "C" * Pour elevator level 3 structure * Install spandrels at tiers 1 and 2 * Construct mechanical and electrical rooms * Begin lot "B" construction 					
Schedule Summary:			Original Contract Dates	Time Extension	Current Contract	Forecast	Variance CDs
Date of Award: 12/15/08 Notice to Proceed: 01/14/09 Original Contract Duration: 400 CD Current Contract Duration: 400 CD Elapsed Time from NTP: 290 CD		Notice to Proceed	01/14/09	0	01/14/09	01/14/09	0
		Milestone 1 - Substantial Completion	02/18/10	0	02/18/10	02/18/10	0
Physical Percent Complete:		Cost Summary: \$ In millions					
Physical completion as of 10/31/09: 54.1% *		1. Award Value: 8.15 2. Executed Modifications: 0.13 3. Approved Change Orders: 0.00 4. Current Contract Value (1+2+3): 8.28 5. Incurred Cost: 5.02					
* Note: Physical completion assessment reflects work completed and work in progress.							

CONTRACT P2550 STATUS

Description: 2550 Rail Vehicle Program Contractor: AnsaldoBreda, Italy (AB)		Contract No. P2550 Status as of: October 30, 2009			
Progress/Work Completed: 1. As of October 2009 twenty-seven vehicles have been accepted by MTA. 2. Vehicle final assembly work continues in Pittsburg, CA. 3. Shipment of foreign and domestic parts for final assembly continue to arrive in Pittsburg, CA. 4. Several Engineering meetings with AB and its subcontractors have been held during the period to evaluate progress and to close open items. 5. Vehicle No. 731 is the next vehicle to be accepted. Areas of Concern: With arrival of new vehicles from Pittsburg to Los Angeles, available vehicle storage space at Gold Line Shop/Yard is a concern as it affects vehicle movement in the yard. A total of twenty-seven cars are at the Metro Gold Line. The remainder of cars will be shipped to the Metro Green Line for testing and acceptance. Delays may occur as a result of change in testing location. To date, 5 vehicles have been shipped to the Metro Green Line and transferred to the Metro Blue Line for testing and acceptance.		Major Activities (In Progress): 1. AnsaldoBreda's manufacturing plants in Pistoia and Naples, Italy are completing the last four carshells for shipment to USA by December 31, 2009. Pittsburg plant continues vehicle assembly work. 2. Testing of Vehicle 731 is ongoing in Los Angeles for next vehicle acceptance. 3. Daily/weekly project meetings are held to close open items. 4. AnsaldoBreda Italy has delivered 96 carshells (48 cars) to Pittsburg. Major Activities Next Period: 1. Several Technical Progress meetings will be held to emphasize the urgency of resolution of remaining critical items for final acceptance of vehicles. The Project Team is going to Italy for a technical meeting from October 28th - November 6th. 2. Car 707 will continue final testing for Conditional Acceptance in November 2009.			
			Quantity	Contract Total Quantity	Balance Due
Schedule Summary: Date of Award: 04/24/03 Notice to Proceed: 06/06/03 Original Contract Duration: 1442 CD Elapsed Time from NTP: 2249 CD <					

CONSTRUCTION PHOTOGRAPHS



Installation of map cases at the Boyle Heights/Mariachi Plaza Station.



Final cleaning of the Boyle Heights/Mariachi Plaza Station mezzanine.

CONSTRUCTION PHOTOGRAPHS



View of Indiana Station at night.



View of pedestrian crossing gates at the Indiana Station.

CONSTRUCTION PHOTOGRAPHS



View of Soto Station canopy and pedestrian plaza at night.

APPENDIX

COST AND BUDGET TERMINOLOGY

ESTIMATED PROJECT COSTS: Estimated project costs are based upon the current project cost estimates that are produced during the engineering design phase.

COMMITMENTS: The total of actual contract awards, executed change orders or amendments, approved work orders of Master Cooperative Agreements, offers accepted for purchase of real estate, and other LACMTA actions that will result in specific expenditures at a future time.

INCURRED COST: The total value of work performed to date of services received, and acquired materials or properties.

EXPENDITURES: The total dollar amount of checks written by the LACMTA's Accounting department for contractor or consultant invoices, third party invoices, staff salaries, and closing payments for escrow accounts that is reported in the LACMTA's Financial Information System (FIS).

CONSTRUCTION: Includes guideways, yards and shops, systems equipment, stations, and vehicles.

PROFESSIONAL SERVICES: Includes general engineering, construction management services, consultant design support services during construction, legal counsel, and agency (LACMTA staff) costs.

RIGHT-OF-WAY: Includes real estate appraisals, purchase cost of parcels, easements, right-of-entry permits, escrow fees, and tenant relocation.

UTILITY/AGENCY FORCE ACCOUNT: Includes work by outside agencies and utilities in design coordination and review.

CONTINGENCY: A fund established at the beginning of a project to provide for anticipated but unknown additional costs that may arise during the course of the project.

SPECIAL CONDITIONS: Includes utilities relocation, environmental compliance and mitigation, master cooperative agreements, insurance program, artwork, systems integration testing and pre-revenue operations.

APPENDIX

LIST OF ACRONYMS

AFE	Authorization For Expenditure
ATC	Automatic Train Control
CADD	Computer Aided Drafting and Design
CALTRANS	California Department of Transportation
CD	Calendar Day
CM	Construction Manager
CMAQ	Congestion Mitigation Air Quality
CN	Change Notice
CO	Change Order
CNFPA	Concurrent Non-FFGA Project Activities
CPM	Critical Path Method
CPUC	California Public Utilities Commission
CR	Camera Ready
CTC	California Transportation Commission
CUD	Contract Unit Description
DB	Design/Build
DBB	Design/Bid/Build
DD	Design Development
DOT	Department of Transportation
DWP	Department of Water and Power
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPBM	Earth Pressure Balance Machine
ESP	Eastside LRT Partners
FAR	Federal Acquisition Regulation
FD	Final Design
FEIS	Final Environmental Impact Statement
FEIR	Final Environmental Impact Report
FFGA	Full Funding Grant Agreement
FIS	Financial Information System
FSEIR	Final Supplemental Environmental Impact Report
FSEIS	Final Supplemental Environmental Impact Statement
FTA	Federal Transit Administration
FTE	Full Time Equivalent
GDSR	Geotechnical Design Summary Report
IFB	Invitation for Bid
IPO	Integrated Project Office
JV	Joint Venture
LA	Los Angeles
LABOE	Los Angeles Bureau of Engineering
LACFCD	Los Angeles County Flood Control District
LACMTA	Los Angeles County Metropolitan Transportation Authority
LADOT	Los Angeles Department of Transportation

APPENDIX
LIST OF ACRONYMS (Continued)

LADPW	Los Angeles Department of Public Works
LADWP	Los Angeles Department of Water and Power
LAUSD	Los Angeles Unified School District
LNTP	Limited Notice To Proceed
LONP	Letter Of No Prejudice
LRT	Light Rail Transit
LRTP	Long Range Transportation Plan
LRV	Light Rail Vehicle
MIS	Major Investment Study
MPSR	Monthly Project Status Report
N/A	Not Applicable
NEPA	National Environmental Protection Act
NPDES	National Pollution Discharge Elimination System
NTE	Not to Exceed
NTP	Notice To Proceed
OCIP	Owner-Controlled Insurance Program
P3	Primavera Project Planner® (scheduling software)
PC	Project Control
PE	Preliminary Engineering
PEER	Permit Engineering Evaluation Report
PGL	Pasadena Gold Line
PIP	Project Implementation Plan
PM	Project Manager
PMA	Project Management Assistance
PMIP	Project Management Implementation Plan
PMOC	Project Management Oversight Consultant
PMP	Project Management Plan (manual)
P&P	Policies & Procedures
PR	Project Report
PSR	Project Study Report
QA	Quality Assurance
QAR	Quality Assurance Report
QC	Quality Control
QPSR	Quarterly Project Status Report
RAC	Review Advisory Committee
RAG	Rail Activation Group
RFC	Request For Change
RFP	Request For Proposal
ROD	Record Of Decision
ROD	Revenue Operations Date
ROM	Rough Order of Magnitude

APPENDIX
LIST OF ACRONYMS (Continued)

ROW	Right-Of-Way
SCAQMD	Southern California Air Quality Management District
SCE	Southern California Edison
SCRRA	Southern California Regional Rail Authority
SHA	State Highway Account
SHPO	State Historic Preservation Office
SIT	System Integration Testing
SOV	Schedule Of Value
SOW	Statement Of Work
SP	Special Provision
STIP	State Transportation Improvement Program
STP	Surface Transportation Program
TBD	To Be Determined
TBM	Tunnel Boring Machine
TCRP	Traffic Congestion Relief Program
TPSS	Traction Power Substation
TRACS	Transit Automatic Control System
UFS	Universal Fare System
USDOT	U.S. Department Of Transportation
VE	Value Engineering
WBS	Work Breakdown Structure
WP	Work Package