Crenshaw/LAX Transit Project



CRENSHAW/LAX TRANSIT PROJECT

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).

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PROJECT SUMMARY

		1 111	JULUI	SUMMANT					
LOCATION: Crenshaw B DESIGN/CONSULTANT:	•	Line	CONSTRUCTION MANAGEMENT CONSULTANT: Stantec CONTRACTORS: Walsh-Shea Corridor Constructors (Alignment) and Hensel Phelps / Herzog (Southwestern Yard)						
PROJECT PHOTO: Comr Expo/Crenshaw Station.		mining south	bound at	WORK COMPLETED PAST MONTH:					
		O Design-builder continues change order design. Continued construction efforts for UG#1 near LAX airport runways Completed falsework construction at the Green Line tie-in. Continued superstructure construction for Century bridge. Completed station footing at West Station. Started work at Park Mesa area. Continued soil excavation at Leimert Park Station. Commenced TBM mining south bound at Expo/Crenshaw Station. Continued offsite tunnel segment production. Completed base scope real estate acquisitions. Southwestern Yard design-builder continued final design.							
EXPENDITURE STATUS (\$ In Millions)				SCHEDULE ASSESSMENT	ī				
(\$	CURRENT	EXPENDED	PERCENT	MA IOD SCHEDIILE	DDIOD	CUDDENT			
ACTIVITIES	BUDGET	AMOUNT	EXPENDED	MAJOR SCHEDULE	PRIOR PLAN	CURRENT PLAN			
ACTIVITIES	DUDGET	AMOUNT	EXPENDED	ACTIVITIES	PLAN	PLAN	VARIANCE WEEKS		
				Environmental					
DESIGN	\$ 136.7	\$ 118.3	86.5%		Sep-11	•	Complete		
				Record of Decision	Dec-11	Dec-11	Complete		
RIGHT-OF-WAY	\$ 127.4	\$ 118.8	93.3%						
				Design					
CONSTRUCTION	\$ 1,353.1	\$ 534.3	39.5%	Preliminary Engineering	Nov-11		Complete		
				Final Design	Sep-15	Aug-16	11.3 months behind		
OTHER	\$ 440.8	\$ 145.2	32.9%						
				Right-of-Way					
TOTAL	\$ 2,058.0	\$ 916.7	44.5%	Full-take parcels available	Jan-15	Jan-15	Complete		
Note: cost expended as of	April 30, 2010	6.		Part-take and TCE parcels	Sep-15	Apr-16	Complete (base scope)		
				Construction					
AREAS OF CONCERN				D-B Notice to Proceed	Sep-13	Sep-13	Complete		
				D-B Substantial Complete	Oct-18	Anr-10	5.9 months behind		
o Design-builder's ability to			floo Arasis-				On a sheadula "		
 Timely review of WSCC's 96th street station accord 				Revenue Service Date	Oct-19	Oct-19			
				The D-B Substantial Complete properties of the contract modification in March 20		odified by a	35-day concurrent delay		
				The second secon					
				*Note: Revenue Service Date includes a significant reduction in contingency.					
ROW ACQUISITION	PLAN	ACQUIRED	REMAINING	CRITICAL ACTIVITIES / 3 N	ONTH LOO	K AHEAD			
				o. Complete excavation at Le	eimert Park S	tation			
FULL TAKES	37	35	2	Complete excavation at Leimert Park Station. Commence invert concrete placement at MLK Station. TBM south bound tunnel break thru at MLK Station. Southwestern Yard design-builder to commence construction in May.					
PARTIAL TAKES	27	23	4						
TEMPORARY EASEMENTS	15	13	2						
TOTAL PARCELS	79	71	8						
		<u> </u>							

PROJECT OVERVIEW

Contract Closeout

Contract C0990 - The advanced utility relocations contract with Metro Builders and Engineers Group, LTD was substantially completed on August 21, 2014. The Metro Board authorized a final settlement in March 2016 on all remaining issues. *A final payment was issued to the contractor in April 2016 and the contract is being closed out.*

Contract C0992 – The concrete ties contract with Rocla Concrete Tie Inc., was substantially completed on August 15, 2014. The contractor was paid in full and the contract was closed out.

Contract C0992A – The running rail and bumping posts contract with LB Foster Rail Technology Corp was substantially completed on May 8, 2015. The contractor was paid in full and the contract was closed out.

Design- Build Contract C0988 – The design-builder, Walsh-Shea Corridor Constructors (WSCC) continues final design with preparation of required contract submittals. The designer is completing design for the most critical items that support the commencement of construction in the various areas of the project. Construction efforts by the design-builder continued along all major areas. The major construction activity this month on the Project's critical path was the start of mining operations. The contractor started tunnel boring of the south bound tunnel from Expo/Crenshaw Station on April 27, 2016, heading to MLK Station. The break through at MLK Station is planned for July 18, 2016 where it will be moved across the floor of the station to the other side, and then mining will recommence to Leimert Park Station.

Design- Build Contract C0991 – The design-builder, Hensel Phelps / Herzog JV was issued a notice-to-proceed on June 29, 2015. *The design-builder continues work on final design and anticipates starting construction in May 2016.*

Right-of-Way

Metro added in January 2019, two full takes and five part-takes/TCE's required for the construction of the Project. There are now a total of 79 parcels (four have been decertified). There are 37 full takes, 27 partial takes and 15 temporary construction easements (TCE's). There have been 71 parcels acquired through April 2016. Thirty-five full takes, 23 part-takes and 13 TCE's have been provided to the design-builder WSCC.

Systems

Metro staff initiated a study to explore possible alternative layouts to accommodate the central control functions associated with new project needs, such as Crenshaw/LAX project, within the existing ROC facility as an interim measure. Metro has determined that the best interim course of action is to expand the existing functional operations at the ROC under a Phase 1 approach to support five new rail lines and extensions including the Crenshaw/LAX Project. The existing ROC will be expanded and will reconfigure the existing ROC service control and closed circuit television monitoring areas to increase overall space requirements by approximately 22 percent. A full build-out of a combined BOC/ROC is also being planned under a Phase 2 approach on land to be acquired by Metro as a separate Capital Improvement Project near Division 20.

PROJECT OVERVIEW (Continued)

Final design of the ROC Reconfiguration Plan was completed and issued for review on February 28, 2014. The initial ROC reconfiguration effort will be for Exposition Phase II and Foothill Gold Line Projects. Crenshaw/LAX Transit Project ROC reconfiguration will be initiated in June 2017 and completed by February 2019.

Program Management

In May 2013, the Board approved a Motion that amended the fiscal year 2014 Proposed Metro Budget to include funding for an underground station at Leimert Park Village and an at-grade station at Hindry as part of the baseline project. This Motion added \$135 million to the LOP budget which included \$80 million in uncommitted fiscal year 2014 funding and \$55 million from the City of Los Angeles. Metro reached agreement with the City of Los Angeles to cover the incremental cost of the stations above the \$80 million identified in fiscal year 2014 funding which the Metro Board approved in May 2013.

With board approval on June 27, 2013, the additional \$135 million is included in the sources of funds chart as well as the additional \$160.1 million for the increased cost of the base work. All recommendations were approved by the Board on June 27, 2013 except that change order authority was maintained at \$500,000. This board action amended the life of project budget to \$2,058 million.

The Board approved on May 28, 2015 an increase in the amount of funding that the Crenshaw/LAX Project is contributing toward the total cost of the Southwestern Yard Project. An additional \$10.8 million is required to be funded by drawdown from the Unallocated Contingency Current Budget SCC 90 and added to the Southwestern Yard Current Budget SCC 30. The current budget includes the 49% cost allocation share that the project is responsible for paying which includes funding of the design and construction for the Southwestern Yard. This amount is revised to \$150.2 million out of a new total of \$307.2 million adopted by the Board.

The amount of funding available for the Crenshaw/LAX Transit Corridor Project, excluding the Southwestern Yard \$150.2 million allocation and Environmental/Planning budget of \$26.0 million is \$1,881.8 million.

The LOP budget is funded by various sources of funds which include local, state and federal funding. The TIFIA Loan is categorized under local funds as the loan is secured by a pledge of Measure R local sales tax funds. The funding percentages are as follows: local funding 79.9%, state funding 8.8% and federal funding 11.3%.

The project commitments thru April 2016 are \$1,845.5 million or 89.7% of the Current Budget. The project expenditures thru April 2016 are \$916.7 million or 44.6% of the Current Budget.

PROJECT OVERVIEW (Continued)

The current period expenditures are for design-builders monthly design and construction costs and professional services costs such as construction management and administrative staffing. The expenditures to date also include the Southwestern Yard expenditures that are part of the 49% cost allocation share that the Project is responsible for paying for. The 51% cost allocation is reported within another internal project number and the total costs for the Southwestern Yard project is included in the Appendix.

This month the project schedule reflects an eight day reduction in project contingency due to the design-builder reporting a loss of eight days in their April 2016 monthly schedule update. The cause of the slippage, as reported by the contractor, is due to software debugging of the TBM, longer TBM testing time and the realignment of the trailing gear track. The slippage delayed the start of mining to April 27, 2016. With this additional loss of 8 days this month, Metro is therefore reporting a projected 180 calendar day delay to the design-builder's contract substantial completion milestone (2019).

MANAGEMENT ISSUES

Concern No. 1: Execution of 3% Local Match funding agreement with the City of Inglewood.

<u>Status/Action</u> Metro and the City of Inglewood continue to work through various issues and may have solutions to outstanding issues so an agreement can be executed in the future.

Concern No. 2: Timely future reviews of WSCC final design submittals by City of Los Angeles.

<u>Status/Action</u> Metro is coordinating with all third party agencies in advance of WSCC final design submittals to ensure that timely review requirements will be met to support WSCC's current schedule submittal dates. The final design submittals will be submitted for review by third parties according to the most critical submittals to ensure the third party agencies are reviewing the most important designs first. Also, along with the concern above is the potential for third party agencies review comments leading to potential change requests outside of the original design signed off by the agencies during the preliminary engineering phase of the project. Metro will take action and strictly monitor the review comments from the agencies.

Concern No. 3: Design-builders design submittal schedule

Status/Action WSCC is submitting submittals in advance of the construction need date but may potentially be at risk of late design submittals impacting future start of various construction activities. Metro has been working closely with WSCC and the cities to address the submittal schedule changes so as not to impact the project schedule critical path. Metro and the cities have also accelerated submittals specified as critical by WSCC so as not to impact construction. WSCC is now scheduled to issue their last submittal in June 2016. WSCC is approximately 97% complete and will continue design services during the construction phase.

Concern No. 4: Design-builders construction schedule

<u>Status/Action</u> This month the project schedule reflects an eight day reduction in project contingency due to the design-builder reporting a loss of eight days in their April 2016 monthly schedule update. The cause of the slippage, as reported by the contractor, is due to software debugging of the TBM, longer TBM testing time and the realignment of the trailing gear track. The slippage delayed the start of mining to April 27, 2016.

MANAGEMENT ISSUES (Continued)

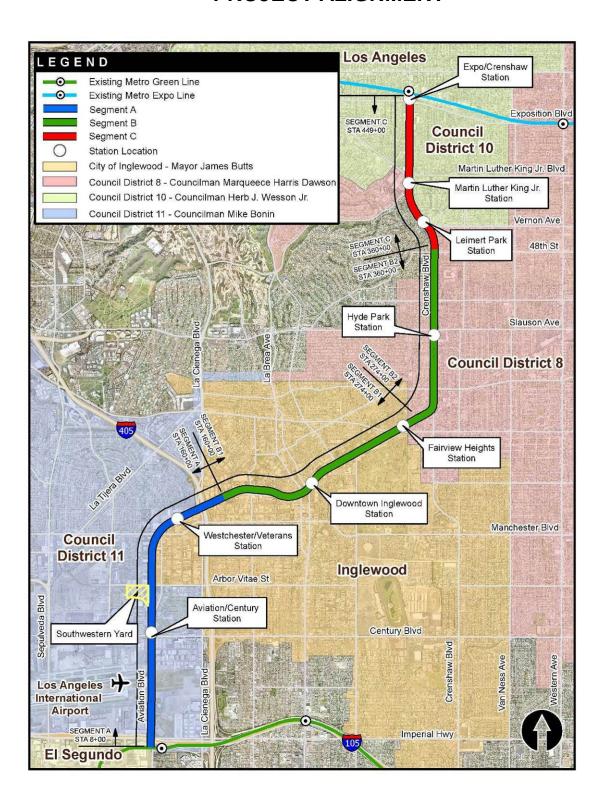
Concern No. 5: Cost and schedule impacts on the Crenshaw/LAX Transit Project to accommodate the future Airport Metro Connector Transit Station at 96th Street.

Status/Action In May 2015, the Metro Board approved Design Option 3 implementing changes required to the design-builder's design to accommodate the ultimate track configuration required for the future Airport Metro Connector Transit Station. Metro continues to work with the design-builder to minimize the impact to current design as well as any construction impacts. A comprehensive modification is being negotiated with WSCC to finalize cost and schedule impacts. Any modifications to WSCC for this scope of work are not funded by the Crenshaw/LAX Transit Project but are funded by other funding sources. Anticipate going to the Metro Board for approval of the modification in June 2016.

Concern No. 6: Design-builder's ability to meet their planned tunneling productivity rate.

<u>Status/Action</u> Tunneling commenced on April 27, 2016. The tunneling of both tunnels is on the Project's critical path and any delay in the tunnel construction effort will have a day-perday impact on the design-builder's substantial completion date. After an initial learning curve the contractor plans to achieve a rate of 74 feet per work day. Metro is closely monitoring the daily production rate and is working with the contractor to ensure any mitigations are timely implemented.

PROJECT ALIGNMENT



PROJECT SCOPE

The Crenshaw/LAX Transit Corridor is a north/south corridor that serves the cities of Los Angeles, Inglewood, Hawthorne and El Segundo as well as portions of unincorporated Los Angeles County. The alignment extends 8.5 miles, from the intersection of Crenshaw and Exposition Boulevards to a connection with the Metro Green Line at the Aviation/LAX Station. The project provides major connections with the Los Angeles International Airport (LAX) as well as links to the Metro Green Line, the Exposition Line and countywide bus network. The Board adopted a light rail system as the Locally Preferred Alternative (LPA) in December 2009.

The alignment is comprised of a double-tracked right-of-way consisting of sections of at-grade in-street, at-grade within railroad right-of-way, aerial, and below-grade guideway sections, eight stations, park and ride facilities at three locations, utilities, landscaping, roadway improvements required by the project and a maintenance & storage facility (Southwestern Yard).

The scope of work for the three construction contracts and two owner-supplied equipment contracts is shown below.

Contract C0990 Crenshaw/LAX Advanced Utility Relocations

The design of several early utility relocations was advanced sufficiently into final design to allow for bidding of critical early utility relocations. This contract includes relocating three (3) existing duct banks that feed various NAVAIDS on the south airfield complex. New ductbank infrastructure will be built by Metro with the fiber replacement work and cut-over by FAA/LAWA. These ductbanks contain fiber lines and power lines which belong to both LAWA and FAA. Since the track alignment is below grade at these crossings, the ductbanks have to be relocated in advance to allow for the construction of the track alignment. In addition, other wet utilities along the Harbor Branch and Crenshaw Boulevard segments of the corridor that can be relocated in advance are included as part of this contract.

The project delivery method for this contract was bid-build Invitation for Bid (IFB).

Design-Build Contract C0988 Crenshaw/LAX Transit Corridor

This is the largest project contract which will complete final design and construction of the infrastructure required along the corridor alignment. The structures required to be constructed are eight stations, grade separations including flyover structures, cut and cover trenching, tunneling and three park-n-ride facilities. The scope of work will include all the necessary systems work including train control, traction power supply substations and distribution, overhead catenary, communications, and systems tie-in to the existing Metro Green Line. The project delivery method for this contract was design-build utilizing a two-step best value procurement approach with submittal of qualification statements through a RFQ process, prequalification of qualified proposers followed by release of a RFP soliciting technical and price proposals with an option at Metro's discretion for best and final offers (BAFO).

PROJECT SCOPE (Continued)

Design-Build Contract C0991 Southwestern Yard

The Board-adopted 2009 Long Range Transportation Plan (LRTP) for Los Angeles County envisioned one new central Light Rail Transit (LRT) Maintenance facility to be used by all projects. Since the LRTP adoption, substantial progress on light rail system planning and development, including more accurate vehicle assignments, cost estimates, and functional requirements, has led Metro to conclude that two new LRT yards, an Eastern Yard and a Southwestern Yard, are necessary. This contract will construct the Southwestern Yard which will consolidate maintenance facility requirements for this project as well as the operating Metro Green Line, proposed South Bay Metro Green Line Extension and proposed Metro Green Line to LAX. The cost of constructing the Southwestern Yard will be proportionately split among the four projects.

The project delivery method for this contract was a two-step design-build IFB approach.

Owner-Supplied Equipment - Contract C0992 Crenshaw/LAX Concrete Ties and Assembly Items

Metro added a contract for procuring owner-supplied equipment for the Design-Build Contract C0988 Crenshaw/LAX Transit Corridor Contractor. The equipment within the contract scope of work includes concrete ties and assembly items.

The project delivery method for this contract was bid-build IFB approach.

Owner-Supplied Equipment - Contract C0992A Crenshaw/LAX Rail and Bumping Posts Procurement

Metro added a contract for rebidding the procurement of running rail and bumping posts for the Design-Build Contract C0988 Crenshaw/LAX Transit Corridor Contractor.

The project delivery method for this contract was bid-build IFB approach.

Start Up

The commencement of pre-revenue operations will be determined by Metro Operations. The design-builder will have completed Phase I systems integration testing (SIT) and Metro will have subsequently completed and passed Phase II SIT. Metro may conduct some Phase II SIT efforts concurrently with the start of pre-revenue operations at the discretion of Metro Operations. All testing will be required to include and pass a "stress test" of maximum operational service levels to be acceptable. Pre-revenue operations includes: 1) train runs, especially those involving multiple trains, on the integrated and fully operational extension; 2) rehearsal of expected revenue operations scenarios; 3) as well as abnormal and emergency scenarios in which random combinations of system interactions are tested; 4) equipment "burned-in"; and 5) training of metro personnel who will eventually operate and maintain the extension and for emergency services personnel. Activities occurring during pre-revenue operations are carried out by a designated Metro Project Rail Activation Group.

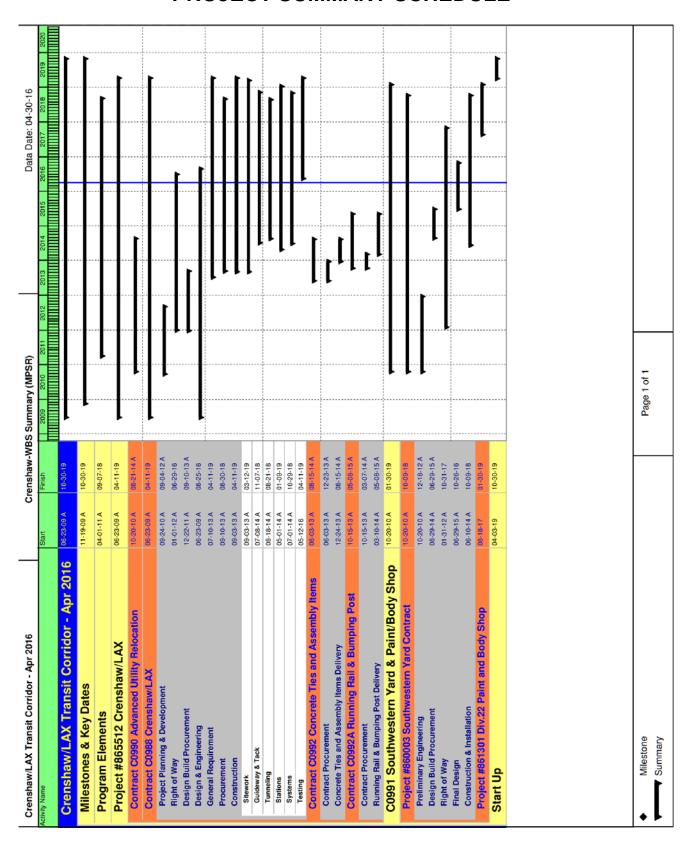
KEY MILESTONES SIX- MONTH LOOK AHEAD

	Milestone Date	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
C0988 - TBM Leaves Expo Station - SB Tunnel	27-Apr-16 A						
C0991 - Milestone #4A - Turnover Parcels SW-0101,2,3	01-May-16*		\triangle				
C0988 - TPSS-01 Perm Power Drop - SCE - Engineering Review	19-May-16						
C0988 - Metro Approval Final Design - UG & AG Stations	20-May-16		PALE DE LET				
C0988 - TPSS-04 Permanent Power Drop - SCE - Process Service Application	04-May-16		mis Ozer				
C0988 - F/R/P Superstructure - 111th St Bridge	19-May-16						
C0988 - 3rd Party Approval - Local Streets : Harbor North (Seg B-1)	24-May-16		PALL DELLE				
C0988 - 3rd Party Approval - Local Streets : Park Mesa (Seg B-2)	07-May-16		MALE OF REAL				
C0988 - TBM After 1st 10 Rings Installation (20%)	31-May-16						
C0988 - TBM Breakout (Portal Eye Prep) @ MLK Station - SB	03-Jun-16						
C0988 - TBM Breakthru (Portal Eye Prep) @ MLK Station - SB	08-Jun-16						
C0988 - WSCC Submits to Metro - AFC Design - Metro Landscape	16-Jun-16						
C0988 - TBM Mining & Segment Installation - SB	18-Jul-16				was Carry		
C0988 - Metro Approval Final Design - Crenshaw (Seg C)	21-Jul-16				with Driver		
C0988 - Turnover to Track - La Brea Bridge	06-Jul-16						
C0988 - TBM Breakthru @ MLK Station - SB	18-Jul-16						
C0988 - ATC: Factory Acceptance Test @ A01 (6+00 to 43+50)	09-Aug-16						
C0988 - OCS: Prepare/Submit O&M Manuals	09-Aug-16						
C0988 - Erect Falsework (Span 1) - I-405 Bridge	04-Aug-16					was Dann	
C0988 - TBM Breakout @ MLK Station - SB & Mine 401+55	04-Aug-16						
C0988 - TBM Mining & Segment Installation - 401+05 - SB	31-Aug-16						
C0988 - Complete TBM SB Tunnel @ Vernon	31-Aug-16						
C0988 - Mfgr/Test/Ship Complete Comm Racks - MGL	09-Sep-16						
C0988 - TPSS: Review/Approve Traction Power System SIT	05-Sep-16						
C0988 - Erect Falsework (Span 2) - I-405 Bridge	13-Sep-16						
C0988 - Demo Median & Roadway - Crenshaw Blvd - 59 to 48	16-Sep-16						
C0988 - Excavate & FRP Elevator Pit Station Platform - Aviation	21-Sep-16						

MTA Board Action "A" following date is actual and completed

Walsh △ Hensel Phelps

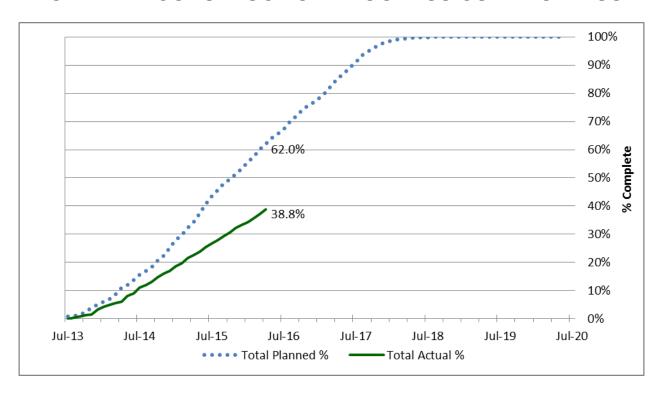
PROJECT SUMMARY SCHEDULE



SCHEDULE MEASUREMENTS

		Change from Last	
	Status	Period	Comment
Current Revenue Service:	10/30/2019	None	
Forecast Revenue Service:	10/30/2019	None	
TIFIA Revenue Service:	10/30/2019	None	
Final Design Progress:			
Contract C0988	97.3%	0.2%	Behind Schedule
Contract C0990	100%	None	Design Completed
Contract C0991	54.9%	10.4%	Baseline Schedule Approved
Contract C0992	100%	None	Design Completed
Contract C0992A	100%	None	Design Completed
Construction Contracts Progress:			
Contract C0988	34.4%	4.1%	Behind Schedule
Contract C0990	100%	0%	Substantially Completed
Contract C0991	0.1%	0.1%	Anticipate Start May 2016
Contract C0992	100%	0%	Substantially Completed
Contract C0992A	100%	0%	Substantially Completed

OVERALL CONSTRUCTION PROGRESS CURVE STATUS



The actual overall construction progress is 38.8% versus a planned progress of 62.0% through April 2016. The progress curves represent a composite percentage for the physical progress of work performed to complete the project's construction contracts, including the major design-build (C0988), advance utility relocation (C0990), and two equipment procurement contracts-concrete ties (C0992) and running rail (C0992A). The Southwestern Yard Contract C0991 is excluded in the composite percentage but will be included in a future Report.

The physical progress percentage excludes non-construction items such as contractor's early design and construction mobilization costs and all general requirement costs not tied specifically to a construction work effort.

MAJOR EQUIPMENT DELIVERY STATUS

Tunnel Boring Machine

WSCC, the design-builder for Contract C0988, will procured the tunnel boring machine (TBM) and equipment. Following are the major milestone dates for TBM:

	Baseline	Mar-16	Apr-16	Monthly Variance
Submit Final Design Details for TBM	01/03/14	04/01/15A	04/01/15A	
Fabricate & Deliver TBM	09/22/14	11/21/14A	11/21/14A	
Procure & Deliver TBM Rolling Stock & Accessories	06/23/14	03/02/15A	03/02/15A	
TBM SB Tunnel Launch at Expo	04/28/15	04/18/16	04/27/16A	-9
TBM SB Break through at Vernon	09/17/15	08/17/16	08/31/16	-14
TBM NB Tunnel Launch at Expo	10/29/15	09/30/16	10/14/16	-14
TBM NB Break through at Vernon	03/21/16	02/09/17	02/17/17	-8

Light Rail Vehicles

The Board approved exercising Option 1 of Contract P3010 with Kinkisharyo International to provide light rail vehicles (LRV) for the Crenshaw/LAX project. The total number of vehicles in the option is 28 which include 20 LRVs for the Crenshaw/LAX project and two additional cars for spares.

The first two pilot cars for the initial order of cars (non-option) were ready on July 7, 2015; then four cars were planned to be delivered every month starting from Aug 2015 with the last group of cars to be delivered in Jan 2017. However, the production rate of four cars per month has only recently been achieved. The contractor has to achieve a higher production rate to complete production of base work by January 2017.

Mobilization of Option 1 will commence after completion of the initial order. First delivery of Option 1 cars will be February 2017 and the last of the cars in September 2017.

Ticket Vending Machines

Procurement of the ticket vending machines will commence after the design-builder completes final design and the total requirements for the project are known. Plan is to initiate change notice to the existing TVM contractor by November 2016 with a planned notice to proceed by August 2017.

Concrete Ties and Assembly Items

All 19,936 concrete ties have been delivered to the job.

Running Rail & Bumping Post

All required running rail & bumping post have been delivered to the job site.

DESIGN-BUILDER'S (C0988) LONG LEAD ITEM LIST

Item	Initiate	Submittal	Delivery	Installation
	Procurement	Needed By		Date
Tunnel Boring Machine	Executed	Complete	Completed	9/1/2015
Stations- Elevators	Executed	3/25/2015	Pits 10/5/15	Pits 10/5/15
Stations- Escalators	Selected	5/22/2015	7/1/2016	10/5/2016
Track- Special Trackwork	Selected	3/21/2015	10/26/2015	11/12/2015
Track- Restraining Rail and Grade Crossing Ties	4/13/2015	5/1/2015	2/10/2016	4/1/2016
TPSS- Substation 1	4/8/2015	5/23/2015	4/2/2016	6/1/2016
TPSS- Substation 2	6/8/2015	7/23/2015	6/2/2016	8/1/2016
TPSS- Substation 3	8/10/2015	9/24/2015	8/4/2016	10/3/2016
TPSS- Substation 5	10/8/2015	11/22/2015	10/2/2016	12/1/2016
TPSS- Substation 6	1/7/2016	2/21/2016	1/1/2017	3/2/2017
TPSS-Substation 7	3/7/2016	4/21/2016	3/2/2017	5/1/2017
TPSS- Substation 8	1/7/2016	2/21/2016	1/1/2017	3/2/2017
TPSS- Substation 9	12/9/2016	1/23/2016	12/3/2016	2/1/2017
Train Houses	3/1/2015	5/30/2015	3/27/2017	5/1/2017
OCS Poles	3/1/2015	5/30/2015	6/27/2016	8/1/2016
Traffic Signal Poles	3/15/2015	4/15/2015	8/1/2015	6/1/2015
LED Lighting Figures	3/15/2015	4/15/2015	8/1/2015	3/1/2016
Jet Fan- UG3	5/5/2016	4/7/2016	12/31/2016	3/1/2017
Jet Fan- UG4	11/5/2016	1/4/2017	7/3/2017	9/1/2017
Artwork- Century	1/6/2016	3/6/2016	9/2/2016	11/1/2016
Artwork- Hindry	1/6/2016	3/6/2016	9/2/2016	11/1/2016
Artwork- La Brea	11/6/2015	1/5/2016	7/3/2016	9/1/2016
Artwork- West	4/7/2016	6/6/2016	12/3/2016	2/1/2017
Artwork- Slauson	10/5/2016	12/4/2016	6/2/2017	8/1/2017
Artwork-Vernon Concourse	2/4/2017	4/5/2017	10/2/2017	12/1/2017
Artwork- Vernon Plaza	10/5/2016	12/4/2016	6/2/2017	8/1/2017
Artwork- MLK Concourse	2/4/2017	4/5/2017	10/2/2017	12/1/2017
Artwork- MLK Plaza	4/7/2017	6/6/2017	12/3/2017	2/1/2018
Artwork- Expo Concourse	7/5/2017	9/3/2017	3/2/2018	5/1/2018
Artwork- Expo Plaza	7/5/2017	9/3/2017	3/2/2018	5/1/2018
TVM- Century	N/A	7/5/2015	1/1/2016	3/1/2016
TVM- Hindry	N/A	4/5/2016	10/2/2016	12/1/2016
TVM- La Brea	N/A	9/3/2016	3/2/2017	5/1/2017
TVM- West	N/A	7/4/2016	12/31/2016	3/1/2017
TVM-Slauson	N/A	11/3/2016	5/2/2017	7/1/2017
TVM- Vernon	N/A	2/3/2017	8/2/2017	10/1/2017
TVM- MLK	N/A	3/6/2017	9/2/2017	11/1/2017
TVM- Expo	N/A	5/6/2017	11/2/2017	1/1/2018
Trees and Landscaping- La Brea	8/6/2015	10/5/2015	4/2/2016	6/1/2016
Irrigation and Landscape Planting- MLK	2/4/2017	4/5/2017	10/2/2017	12/1/2017
Landscape- West Park and Ride	8/6/2015	10/5/2015	4/2/2016	6/1/2016
Traffic Signal Controllers- Market and Florence	9/3/2014	11/2/2014	5/1/2015	6/30/2015
Traffic Signal Controllers- Locust Bus Bay and Florence	9/10/2014	11/9/2014	5/8/2015	7/7/2015
Traffic Signal Controllers- 111th and Aviation	3/11/2015	5/10/2015	11/6/2015	1/5/2016
Traffic Signal Controllers- Imperial and Aviation	11/26/2015	1/25/2015	7/23/2016	9/21/2016
Traffic Signal Controllers- Florence and High	4/17/2015	6/16/2015	12/13/2015	2/11/2016
Traffic Signal Controllers- Centinela and Florence	5/8/2015	7/7/2015	1/3/2016	3/3/2016
Traffic Signal Controllers- West and 71st	5/8/2015	7/7/2015	1/3/2016	3/3/2016
Traffic Signal Controllers- Hindry and Florence	1/1/2016	3/1/2016	8/28/2016	10/27/2016
Traffic Signal Controllers- La Brea and Florence	2/6/2016	4/6/2016	10/3/2016	12/2/2016
Traffic Signal Controllers- 104th and Aviation	9/30/2015	11/29/2015	5/27/2016	7/26/2016
Traffic Signal Controllers- Oak and Florence	3/5/2015	5/4/2015	10/31/2015	12/30/2015
Traffic Signal Controllers- Cedar and Florence	3/5/2015	5/4/2015	10/31/2015	12/30/2015
Traffic Signal Controllers- Eucalyptus and Florence	3/5/2015	5/4/2015	10/31/2015	12/30/2015
Traffic Signal Controllers- Ivy Florence and Cable	3/5/2015	5/4/2015	10/31/2015	12/30/2015
Traffic Signal Controllers-Century and Aviation	3/5/2015	5/4/2015	10/31/2015	12/30/2015
Traffic Signal Controllers- La Cienega and Florence	8/1/2016	5/4/2015	10/31/2015	12/30/2015
SF6 Gas Insulated Switches * Metro top/bottom	3/13/2015	6/1/2015	8/2/2016	10/1/2016

CRITICAL PATH NARRATIVE

Critical Path:

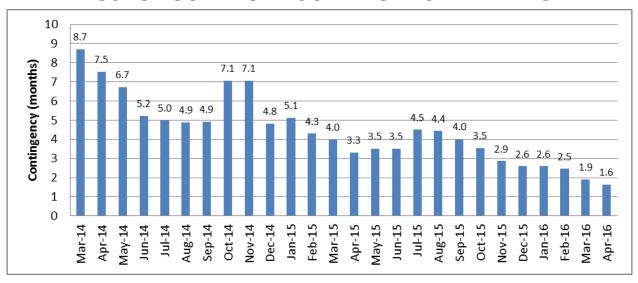
The longest path to project substantial completion begins with final design of the Design/Build Contract #C0988 Crenshaw/LAX Transit Corridor.

The most critical and longest path starts with the Expo Station support of excavation (SOE) and decking, excavation & invert construction; TBM mining operation; cross passage excavation, tunnel invert and walkway construction; track and system installation, while the MLK station SOE and decking, excavation & invert construction, OCS/Traction power and Train Control/Communication System installation follow closely as the secondary critical path.

Critical work concludes with phase I systems integration testing by the C0988 contractor, phase 2 systems integration testing by MTA and then pre-revenue operations.

The current critical path indicates Milestone 1 - Contract Substantial Completion date is April 11, 2019, which is 180 calendar days behind the current contract date.

PROJECT SCHEDULE CONTINGENCY DRAWDOWN



PROJECT SCHEDULE CONTINGENCY DRAWDOWN ANALYSIS

The project schedule contingency drawdown is based on the revenue service date of October 30, 2019. The change of LOP Contingency is due to design-builder reforecast of their substantial completion milestone.

Metro this month reduced the forecast of the available project contingency by eight calendar days. The eight calendar days is the delay in the contractor's schedule for the longer period of time required to do the final utility connection and testing of the TBM at the Expo/Crenshaw Station.

The total contingency remaining is 1.6 months.

PROJECT COST STATUS

SCC	DESCRIPTION	ORIGINAL	CURREN	T BUDGET	COMMITMENTS		COMMITMENTS		COMMITMENTS		IMITMENTS EXPENDITURES		CURRENT	CURRENT BUDGET/
CODE	DESCRIPTION	BUDGET	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	FORECAST VARIANCE			
10	GUIDEWAYS	471,335,000	-	452,500,001		443,245,043	11,302,410	149,368,536	-	450,354,375	(2,145,6			
20	STATIONS	153,906,000	-	316,050,000		301,776,720	1,389,840	124,698,158	-	315,050,000	(1,000,0			
30	SUPPORT FACILITIES SOUTHWEST YARD	66,673,000	-	73,245,544		71,053,330	234,890	11,525,615	-	71,164,000	(2,081,5			
40	SITEWORK\SPECIAL CONDITIONS	235,576,000	•	348,565,999	1,456,279	365,121,590	4,238,860	246,188,383	226,135	375,171,759	26,605,7			
50	SYSTEMS	125,132,000	-	169,311,000	39,880	152,362,710	176,339	2,566,091	-	169,436,000	125,0			
	CONSTRUCTION SUBTOTAL (10-50)	1,052,622,000	-	1,359,672,544	1,496,159	1,333,559,393	17,342,339	534,346,784	226,135	1,381,176,134	21,503,5			
60	RIGHT-OF-WAY	132,294,000	-	127,400,000	8,808,594	122,401,706	6,537,933	118,825,058	-	127,490,000	90,000			
70	LRT VEHICLES	87,780,000	-	82,100,000		82,050,901		11,656,698	-	83,571,544	1,471,5			
80	PROFESSIONAL SERVICES	273,147,000	-	300,093,178	5,058,108	281,985,277	5,103,719	226,279,468	1,520,333	343,748,412	43,655,2			
	SUBTOTAL (10-80)	1,545,843,000	-	1,869,265,722	15,362,861	1,819,997,277	28,983,991	891,108,007	1,746,467	1,935,986,090	66,720,3			
90	UNALLOCATED CONTINGENCY	177,157,000	•	162,734,278	-	-	-	-	(1,746,467)	96,013,910	(66,720,3			
	TOTAL PROJECT 865512 (10-100)	1,723,000,000	-	2,032,000,000	15,362,861	1,819,997,277	28,983,991	891,108,007	-	2,032,000,000	-			
	ENVIRONMENTAL/PLANNING - 405512	5,526,150	-	5,526,150		5,526,150		5,526,150	-	5,526,150				
	ENVIRONMENTAL/PLANNING - 465512	20,473,850	٠	20,473,850	-	20,023,237	-	20,023,237	-	20,473,850				
TOTAL	PROJECTS 405512 & 465512 (ENV / PLAN'G)	26,000,000	•	26,000,000	-	25,549,388	-	25,549,388	-	26,000,000				
	TOTAL PROJECTS 405512, 465512 & 865512	1,749,000,000	-	2,058,000,000	15,362,861	1,845,546,664	28,983,991	916,657,395	-	2,058,000,000				

PROJECT COST ANALYSIS

The project numbers 405512, 465512, 865512, and 860003 are internal to Metro and are used to differentiate between environmental/planning and construction components of the project.

Original Budget:

The Board in October 2011 established the Life-of-Project (LOP) budget of \$1,749 million for the Crenshaw/LAX Transit Project.

Current Budget:

There have been two increases in the LOP to date:

- The Board in December 2012 approved an increase of \$13.9 million for a new LOP total of \$1,762.9 million. The Unallocated Contingency Standard Cost Category (SCC) 90 budget line item was increased by the \$13.9 million for a new total of \$191.1 million.
- The Board in June 2013 approved an increase of \$295.1 million for a new LOP total of \$2,058.0 million. The total increase was based on two actions:
 - o Increase LOP base project scope in the amount of \$160.1 million, and
 - o Increase LOP to include the options for Crenshaw/Vernon Station (Leimert Park Village) and Florence/Hindry Station in the amount of \$135.0 million.

The Board during May approved an increase in the amount of funding that the Crenshaw/LAX project is contributing toward the total cost of the Southwestern Yard Project. An additional \$10.8 million is required to be funded by drawdown from the Unallocated Contingency Current Budget SCC 90 and added to the Southwestern Yard Current Budget SCC 30. The current budget includes the 49% cost allocation share that the project is responsible for paying which includes funding of the design and construction for the Southwestern Yard. This amount is revised to

PROJECT COST ANALYSIS (Continued)

\$150.2 million out of a new total of \$307.2 million adopted by the Board. The \$150.2 million is spread among the SCC 30, 40, 60, 80 and 90 in the Cost Report by Element table above.

A project cost status chart depicting the adopted budget for Southwestern Yard Project is included this month in the appendix section of this report.

The amount of funding available for the Crenshaw/LAX Transit Project, excluding the Southwestern Yard Project \$150.2 million allocation and Environmental/Planning budget of \$26.0 million, has been revised to \$1,881.8 million.

Current Forecast:

The total project current forecast is \$2,058 million. Within the SCC codes, there was a reallocation of forecast for SCC-30 shifting final design cost for the Southwestern Yard and design-builder cost to SCC-80 per FTA guidelines.

Commitments:

The commitments are cumulative through April 30, 2016. The total commitments increased by \$15.4 million this period primarily due to the following:

- SCC-40 (Sitework and Special Conditions) has increased by \$1.5 million primarily for the Metro Board approved settlement agreement for the Advance Utility Relocation contract C0990, executed modifications associated with design-build Contract C0988 Crenshaw/LAX Transit Corridor and Metro Art Program.
- SCC-60 (Right-of-Way) has increased \$8.8 million primarily real estate acquisition settlement cost this period. The total commitment of \$122.4 million includes \$52.5 million for the Southwestern Yard 49% allocation.
- SCC-80 (Professional Services) has increased of \$5.1 million due to executed contract modifications with the design-build Contract C0988 Crenshaw/LAX Transit Corridor, project administration, legal services and project management support services. The total commitment of \$282.0 million includes \$20.0 million for the Southwestern Yard 49% allocation.

The \$1,845.5 million in commitments to date represents 89.7% of the current budget.

Expenditures:

The expenditures are cumulative through April 30, 2016. The total expenditures increased by \$28.9 million this period due to the following:

- SCC-10 (Guideways) has increased by \$11.3 million for costs associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-20 (Stations, Stops, Terminals, Intermodal) has increased by \$1.4 million for costs associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-30 (Southwestern Yard) has increased by \$0.2 million for costs associated with Contract C0991 Division 16: Southwestern Yard (Design/Build).

PROJECT COST ANALYSIS (Continued)

- SCC-40 (Sitework and Special Conditions) has increased by \$4.2 million for costs associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor, Advance Utility Relocation contract C0990 with Metro Builders and Engineers LTD, Metro art program, third party scope of work with Tesoro Logistics LP and Los Angeles Department of Water & Power.
- SCC-50 (Systems) has increased \$0.2 million for costs associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-60 (Right-of-Way) has increased \$6.5 primarily for real estate acquisition settlement cost this period. The total expenditure of \$118.8 million includes \$52.5 million for the Southwestern Yard 49% allocation.
- SCC-80 (Professional Services) has increased by \$5.1 million for costs associated with Contract C0988 Crenshaw/LAX Transit Corridor, Contract C0991 Division 16: Southwestern Yard (Design/Build), Metro project administration, IPMO field office lease and utilities, construction management support services, legal services, design coordination and oversight by Caltrans District 07, third party coordination by Los Angeles City Departments, project management assistance support, change order audit, community relations and labor compliance monitoring services. The total expenditure of \$226.3 million includes \$8.3 million for the Southwestern Yard 49% allocation.

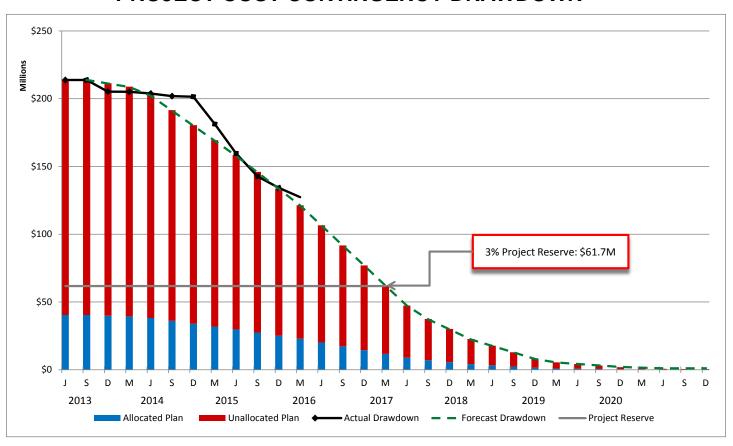
The \$916.7million in expenditures to date represents 44.6% of the current budget.

Non-Crenshaw/LAX Transit Project Funded Scope of Work

The costs shown in the table below are not part of Crenshaw/LAX Transit Project costs but are funded by other Metro projects using the services of the design-builder (Contract C0988).

C0988 NON-CRENSHAW/LAX TRANSIT PROJECT FUNDED SCOPE OF WORK										
DESCRIPTION	ORIGINAL	CURREN	CURRENT BUDGET		UDGET COMMITMENTS		EXPENDITURES		CURRENT FORECAST	
DESCRIPTION	BUDGET	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	VARIANCE
405556 SYSTEMWIDE TRANSIT PLANNING	139,236		139,236	-	139,236	20,977	114,893	•	139,236	-
210090 FARE GATE PROJECT	2,310,000		2,482,746	-	2,482,746	-	172,746	-	2,482,746	-
460303 AIRPORT METRO CONNECTOR	366,400	-	3,001,555	65,132	1,926,052	25,985	1,860,920	-	3,001,555	-
500013 C/LAX LAWA SCOPE OF WORK	1,575,362		1,575,362	-	531,125	-	408,712	•	1,575,362	-
TOTAL	4,390,998		7,198,899	65,132	5,079,159	46,962	2,557,271	-	7,198,899	-

PROJECT COST CONTINGENCY DRAWDOWN



Through 02-Apr-2016

PROJECT COST CONTINGENCY DRAWDOWN ANALYSIS

The project current budget of \$2,058,000,000 includes an "unallocated contingency" amount of \$173,500,000 which is included as a separate Standard Cost Category (SCC) element. Also included within the current budget is an "allocated contingency" of \$40,366,792 which is allocated, where applicable, to specific contracts within each SCC element. The allocated contingency is not broken out separately in the current budget, as this amount covers anticipated but unknown contract modifications issued by Metro. The total project cost contingency is \$213,866,792 or 10.4%.

Included in the project contingency drawdown is a 3% project reserve line. The Board is to be notified when it becomes necessary to drawdown contingency below the project reserve line to cover project costs. This notification request was adopted by the Metro Board of Directors in September 2012.

The project contingency drawdown curve is based on an October 2019 revenue service date.

Crenshaw/LAX Transit Project
Monthly Project Status Report

April 2016

PROJECT CONTINGENCY DRAWDOWN ANALYSIS (Continued)

There has been a cumulative drawdown of \$89,793,907 or 42.0% for both allocated and unallocated contingency through April 2016.

- The unallocated contingency decreased by \$1,746,567 due to executed contract modifications for the design-build contract C0988 Crenshaw/LAX Transit Corridor, annual work order with Los Angeles City departments and project management support services contract PS2879 with HILL INTERNATIONAL, INC.
- Allocated contingency decreased by \$1,553,784 due to executed contract modifications for the design-build contract C0988 Crenshaw/LAX Transit Corridor and the Metro Board approved settlement agreement for the Advance Utility Relocation contract C0990.

PROJECT COST CONTINGENCY (through 30-Apr-2016) UNITS IN DOLLARS								
	Original				Remaining			
	Contingency	Previous	Current	To-Date	Contingency			
	(Budget)	Period	Period		(Forecast)			
Unallocated Contingency	173,500,000	(75,739,623)	(1,746,567)	(77,486,190)	96,013,810			
Allocated Contingency	40,366,792	(10,753,933)	(1,553,784)	(12,307,718)	28,059,074			
Total Contingency	213,866,792	(86,493,556)	(3,300,351)	(89,793,907)	124,072,885			

Crenshaw/LAX Transit Project	April 2016
Monthly Project Status Deport	

DISADVANTAGED BUSINESS ENTERPRISE (DBE) STATUS

Contract C0988 Crenshaw/LAX Transit Corridor Design-Build

(Reported Data as of April 15, 2016)

• DBE Goal – Design 20%

Current DBE Commitment \$20,252,929 (20.59%)

Current DBE Participation \$23,932,720 (24.33%)

• Twenty (20) Design subcontractors have been identified to-date

• DBE Goal – Construction 20%

• DBE Commitment \$236,116,671 (20%)

Current DBE Commitment \$117,955,445 (9.96%)

Current DBE Participation \$ 94,417,394 (22.78%)

• Sixty-six (66) Construction subcontractors have been identified to-date.

PROJECT LABOR AGREEMENTS (PLA) STATUS

Contract C0988 Crenshaw/LAX Transit Corridor Design-Build

(Reported Data as of March, 2016)

Targeted Worker Goal –
 40.00%

Targeted Worker Current Participation - 58.72%

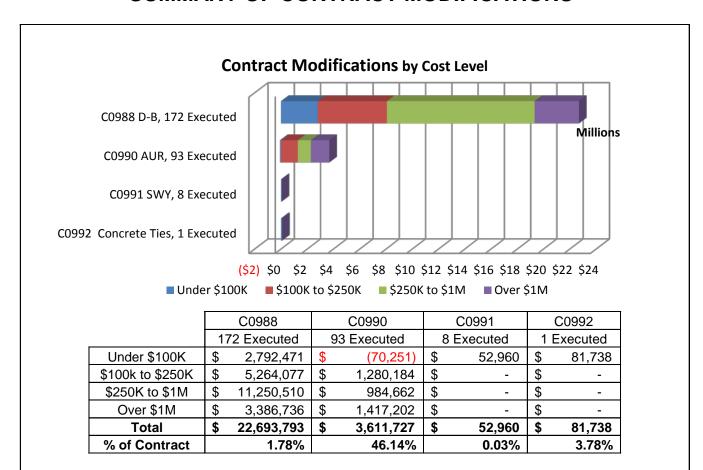
Apprentice Worker Goal - 20.00%

Apprentice Worker Current Participation - 18.27%

Disadvantaged Worker Goal - 10.00%

Disadvantaged Worker Current Participation 11.54%

SUMMARY OF CONTRACT MODIFICATIONS



Percent of Contract equals the total Change value divided by the Contract Award amount

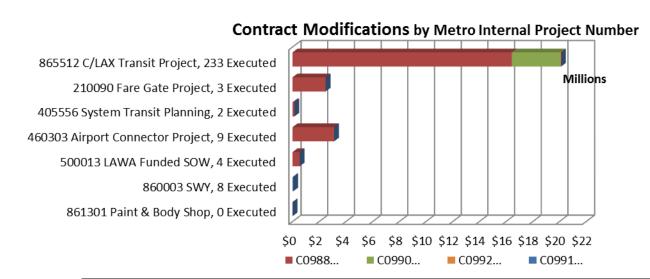
One hundred and seventy two (172) changes with a total value of \$22.69 million have been executed since execution of Contract C0988. There are an additional forty one (41) changes with a total value of \$5.51 million are pending the administrative approval process.

Ninety three (93) changes with a total value of \$3.61 million have been executed since execution of Contract C0990.

Eight (8) changes with a total value of \$52,960 have been executed since execution of Contract C0991. There are additional seven (7) changes with total value of \$1.4 million credit are pending on final agreement between Metro and Contractor.

One change with a value of \$81,738 has also been executed since execution of Contract C0992.

SUMMARY OF CONTRACT MODIFICATIONS



	865512	210090	405556	460303	500013	860003	861301	
	Executed	Executed	Executed	Executed	Executed	Executed	Executed	
C0988 - QTY	154	3	2	9	4	0	0	
C0998 - \$	\$ 16,427,107	\$ 2,482,746	\$ 139,236	\$ 3,113,489	\$ 531,216	\$ -	\$ -	
C0990 - QTY	78	0	0	0	0	0	0	
C0990 - \$	\$ 3,611,797	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
C0991 - QTY	0	0	0	0	0	8	0	
C0991 - \$	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 52,960	\$ -	
C0992 - QTY	1	0	0	0	0	0	0	
C0992 - \$	\$ 81,738	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Total - QTY	233	3	2	9	4	8	0	
Total - \$	\$ 20,120,641	\$ 2,482,746	\$ 139,236	\$ 3,113,489	\$ 531,216	\$ 52,960	\$ -	

Two hundred and thirty-three (233) changes with a total value of \$20.12 million have been executed for Project 865512 Crenshaw/LAX Transit Project. There are an additional forty-one (41) changes with a total value of \$5.51 million pending the administrative approval process.

Three (3) changes with a value of \$2.48 million have been executed for Project 210090 Fare Gate Project.

Two (2) changes with a value of \$0.14 million have been executed for Project 405556 System Transit Planning.

Nine (9) changes with a value of \$3.11 million have been executed for Project 460303 Airport Metro Connector Project.

Four (4) changes with a total value of \$0.53 million have been executed for Project 500013 Crenshaw/LAX LAWA Statement of Work.

Eight (8) with a value of \$52,960 have been executed for Project 860003 Southwestern Yard. There are additional seven (7) changes with a total credit of \$1.4 million pending approval.

FINANCIAL/GRANT STATUS

\$ in millions

\$ III IIIIIIOIIS	(A) ORIGINAL	(B) TOTAL	(C) TOTAL	(D) COMMITM	(D/B) IENTS	(E) EXPENDI	(E/B) TURES	(F) BILLED to	(F/B) FUNDING
SOURCE	BUDGET	FUNDS ANTICIPATED	FUNDS AVAILABLE	\$	%	\$	%	\$	SOURCE %
FEDERAL - CMAQ	68.2	54.0	54.0	54.0	100%	54.0	100%	54.0	100%
FEDERAL - SECTION 5309 BUS CAPT	8.6	8.6	8.6	8.6	100%	8.6	100%	8.6	100%
FEDERAL - REGIONAL STP	20.0	120.9	73.7	120.9	100%	59.3	49%	38.5	32%
FEDERAL - ALTERNATIVE ANALYSIS	1.2	1.2	1.2	1.2	100%	1.2	100%	1.2	100%
FEDERAL - TIGER II	0.0	13.9	13.9	13.9	100%	13.9	100%	13.9	100%
FEDERAL REGIONAL IMPROV PROG	34.3	34.4	0.0	34.4	100%	0.0	0%	0.0	0%
STATE REGIONAL IMPROVEMENT PROG	2.2	2.2	2.2	2.2	100%	2.2	100%	2.2	100%
STATE PPM	0.178	0.178	0.178	0.178	100%	0.178	100%	0.178	100%
STATE PROP 1B PTMISEA	201.2	128.6	128.6	128.6	100%	128.6	100%	128.6	100%
STATE PROP 1 B LOCAL PARTNER PROG	0.0	49.5	49.5	49.5	100%	49.5	100%	49.5	100%
MEASURE R - TIFIA LOAN	545.9	545.9	545.9	545.9	100%	480.1	88%	480.1	88%
MEASURE R	661.1	661.1	502.8	661.1	100%	97.5	15%	97.5	15%
OTHER FUNDS*	52.4	187.5	13.0	13.0	7%	13.0	7%	13.0	7%
PROP C 25% HIGHWAY	148.9	189.5	3.7	161.7	85%	3.7	2%	3.7	2%
PROP C 40% DISCRETIONARY	0.0	10.2	0.0	0.0	0%	0.0	0%	0.0	0%
PROP A 35% RAIL CAPITAL	4.8	50.4	4.9	50.4	0%	4.9	0%	4.9	10%
TOTAL	1,749.0	2,058.0	1,402.0	1,845.5	89.7%	916.7	44.5%	895.8	43.5%

NOTE: Expenditures are cumulative through April 2016.

Original Budget based on Board approved October 2011 Funding/Expenditure Plan

Total Funds Anticipated based on Board approved June 2013 Revised Funding

^{*} Other funds include: Local Agency Funds (\$107.470), CNG Tax Credit (\$54.000) and 3rd Party Lease Contingency (\$26.000)

STATUS OF FUNDS ANTICIPATED

FEDERAL – CMAQ: Metro submitted to FTA in October 2013 a draft grant application of \$30M for review. FTA has reviewed the application and allowed Metro to formally submit the grant application in July 2014. Grant was approved in December 2014. Funds are available for drawdown. Metro submitted to FTA in January 2015 a grant application of \$24M for approval. Grant was approved on September 23, 2015. Funds are available for drawdown.

FEDERAL – **RSTP:** FTA approved a grant of \$45M in May 2014 to fund the project rail cars. Funds are available for drawdown. Metro submitted to FTA in October 2013 a draft grant application of \$28.2M for review. FTA has reviewed the application and allowed Metro to formally submit the grant application in July 2014. Grant was approved in December 2014. Funds are available for drawdown. *Metro will apply to FTA for a grant application of \$20.0 M in August 2016.*

STATE PROP 1B – PTMISEA: An allocation request for \$12M was approved in May 2012 and funds are available for drawdown. In March 2013, allocation requests of \$11.4M and \$98.9M were submitted to Caltrans. The \$11.4M allocation request was approved in June 2013. Funds are available for drawdown. The \$98.9M allocation request was approved on February 6, 2014. Funds are available for drawdown. A new allocation request of \$6.170M was submitted in June 2014 to Caltrans for approval. The allocation request was approved on February 4, 2015. Funds are available for drawdown.

STATE PROP 1B LP: An allocation request of \$49.5M was submitted in April 2013 and approved in July 2013. The allocation request was executed by Caltrans in December 2013. Funds are available for drawdown.

MEASURE R – TIFIA LOAN (Transportation Infrastructure Finance & Innovation Act): Application for a loan of \$545.9M was submitted to the US Department of Transportation (DOT) in November 2011. Loan agreement was executed on September 12, 2012.

MEASURE R: \$502.753M has been allocated to the project through FY2016. Funds are available for drawdown.

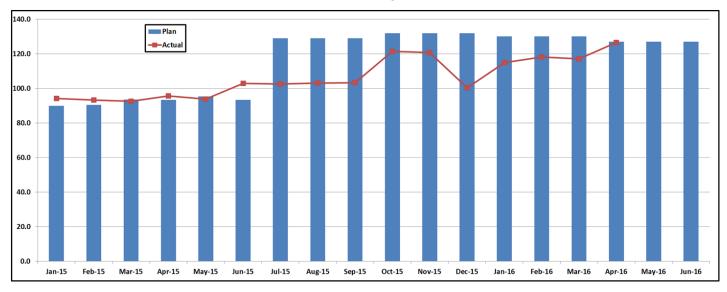
OTHER FUNDS: City of LA: Based on the funding agreement between Metro and the City of LA. \$13M is available for drawdown through FY2016.

PROP C 25% HIGHWAY: \$3.8M has been allocated to the project based on the June 2014 TIFIA Financial Model Funding Plan. Funds are available for drawdown.

PROP A 35% RAIL CAPITAL: \$4.8M has been allocated to the project based on the June 2014 TIFIA Financial Model.

STAFFING STATUS

Total Project Staffing – FTES



Notes:

- 1. FTE = Full Time Equivalent
- 2. Staffing levels include the Southwestern Yard Project.
- 3. Actual staffing levels are cumulative through March 2016.

TOTAL PROJECT STAFFING

With the start of the 2016 fiscal year in July; the staffing for the Southwestern Yard Project is also included along with the Crenshaw/LAX Project for Metro and the Construction Management and Engineering Services consultants.

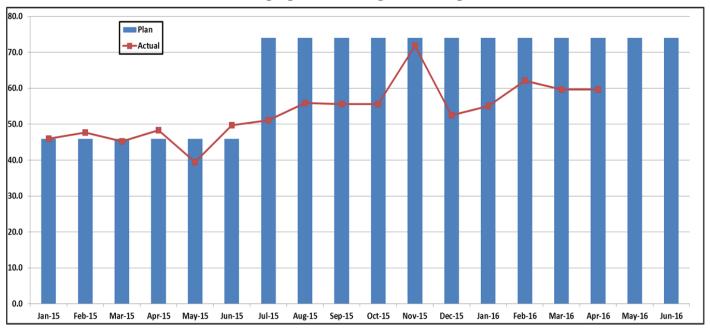
The planned staffing includes 11 new positions that were authorized by the Board in July 2015. Actual staffing will continue to be less than plan until new positions are filled throughout fiscal year 2016 and planned construction work increases with corresponding increases is staffing requirements.

The next three charts show actual staffing versus planned staffing for the three major project participants.

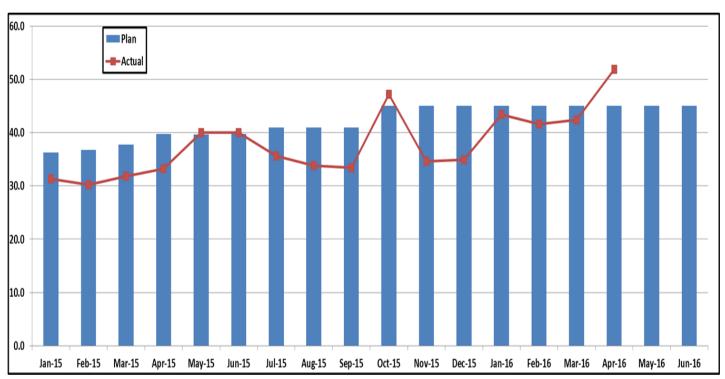
Crenshaw/LAX Transit Project
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April 2016

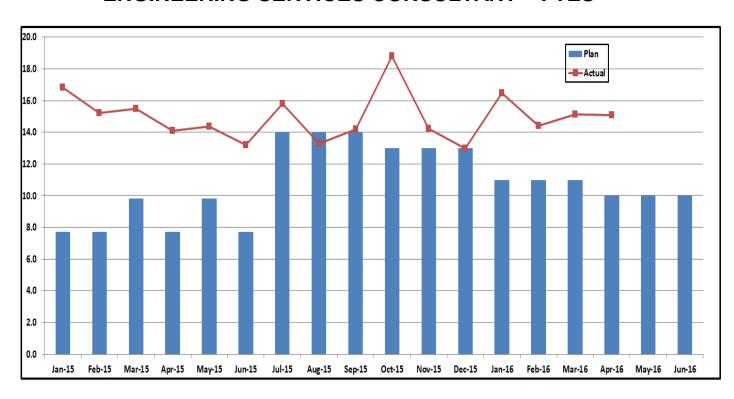
STAFFING STATUS (Continued) METRO STAFFING – FTES



CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONSULTANT – FTES



STAFFING STATUS (Continued) ENGINEERING SERVICES CONSULTANT – FTES



REAL ESTATE STATUS

Contract No.	Number of Parcels	Certified	Decertified	Appraisals Complete	Offers Made	Agreements Signed	Condemnations Filed	Relocations Complete	Parcels Available to WSCC		
C0988 C/LAX Transit C	C0988 C/LAX Transit Corridor (D-B):										
Crenshaw Subdivision											
Full Takes	12	12		12	12	7	5	12	12		
Part Takes (PT or SE)	10	9	1	9	9	3	6		9		
TCE	10	10		10	10	1	8		9		
Subtotal Parcels	32	31	1	31	31	11	19	12	30		
Crenshaw Subdivision Additional Parcels:											
Full Takes											
Part Takes	1	1									
TCE								ĺ			
Subtotal Parcels:	1	1	0	0	0	0	0	0	0		
Total Crenshaw Parcels	33	32	1	31	31	11	19	12	30		
Harbor Subdivision											
Full Takes	15	14		15	15	8	7	12	15		
Part Takes (PT or SE)	18	16	2	18	17	6	10		14		
TCE	3	2	1	2	2		2		2		
Subtotal Parcels	36	32	3	35	34	14	19	12	31		
Harbor Subdivision Ad	Iditional Pard	cels:									
Full Takes	3	2	1	1							
Part Takes	4	2	2	2	2						
TCE	3	3	0	3	3	2			2		
Subtotal Parcels:	10	7	3	6	5	2	0	0	2		
Total Harbor Subdivision Parcels	46	39	6	41	39	16	19	12	33		
Total CR/HS Parcels:	79	71	7	72	70	27	38	24	63		
Southwestern Yard											
Full Takes	8	8		8	8	4	4	7	8		
Part Takes	0										
TCE	0										
Subtotal Parcels:	8	8	0	8	8	4	4	7	8		
Total SW Parcels:	8	8	0	8	8	4	4	7	8		
Total Project Parcels	87	79	7	80	78	31	42	31	71		

- All critical parcels have been turned over to the Contractor.
- Only two of the original 76 acquisitions remain to be turned over to the Contractor. Anticipate having possession of these parcels by the end of summer.
- The project has added eight parcels to the list of required properties. Two of these acquisitions are complete.

Reported as of April 30, 2016

QUALITY ASSURANCE STATUS

C0988 Crenshaw/LAX Transit Corridor Design-Build Contract

- Attended weekly Quality Staff Meetings with City of Los Angeles, Los Angeles Bureau of Contract Administration, HNTB, and WSCC Lead Quality personnel.
- WSCC Quality Control issued five (5) Nonconformance Reports (NCR's) during the month including Green Line Bridge (Bent 5) concrete placement, Invert slab elevation at UG-1, horizontal measurement discrepancy with Green Line Abutment 1 shear key, concrete tests results for the Century/Aviation Bridge pour and damaged manhole ring/riser in guideway area.
- WSCC Quality Control closed one NCR for resolution for Geocomp instrumentation details.
- Metro Quality issued one Nonconformance Report (NCR) for concrete being poured without a WSCC QC Pre-Placement Inspection.
- WSCC completed a formal Surveillance Report for La Brea Bridge Post-Tensioning Operations.
- HNTB Design Quality Control audited five (5) deliverables.
- The Metro Independent Test Lab provided a Certified Weld Inspector for the UG-3 SOE Cantilever Deck Beams.
- Metro Quality participated in Readiness Review Meetings for TBM Mining, Park Mesa street improvements, permanent traffic and street lighting and Century Bridge Pre-Pour Meeting.

ENVIRONMENTAL STATUS

C0988 Crenshaw/LAX Transit Corridor Design Build

- Reviewed and commented on the following Contractor Submittals:
 - Weekly Noise Monitoring Data for station and alignment construction
 - Green Construction Plan Monthly Report
 - Sustainability Plan Monthly Reports
 - Weekly Storm Water Pollution Prevent Plan (SWPPP) inspection reports
 - Weekly Fugitive Dust Inspection Reports
 - Various Construction Work Plans
- Monitoring groundwater dewatering activities at the Expo and MLK Station excavations.
 Submitted the First Quarter Monitoring Report to the RWQCB in May 2016.
- Metro obtained a Waste Discharge Permit (WDR) for the Regional Water Quality Control Board (RWQCB) for the injection of chemical grout into the groundwater at the Expo Station and MLK Station. Submitted the Monthly Monitoring Report to the RWQCB in April 2016.
- The City of Los Angeles Bureau of Sanitation approved the Low Impact Development Plan in April 2016.
- A Soil Investigation Report for Parcel 2101 was submitted to the RQWCB in April 2016.
- Ardent, environmental consultant for Parcel SW-0104, submitted the Fourth Quarter Monitoring Report to the RWQCB in April 2016.
- Coordinated the location and species of replacement trees along Crenshaw Boulevard with the City of Los Angeles and community groups.
- The State Historic Preservation Officer (SHPO) approved the Cultural Resources Monitoring and Mitigation Plan (CRMMP) and the Paleontological Monitoring and Mitigation Plan (PMMP).
- Conducted Contractor Cultural Awareness Training.

CONSTRUCTION RELATIONS STATUS

• Preparing for "Halfway There" community celebration on May 7, 2016.

SYSTEMWIDE DESIGN AND ART PROGRAM STATUS

- Responded to RFIs and submittal drawings.
- Installation of construction phase artwork banners designated by non-profit arts education organization in conjunction with local youth to be installed in three locations in the City of Los Angeles and the City of Inglewood.
- Worked with Design Builder to refine artwork technical requirements, schedule and budget.
- Participated in Systemwide Design integration reviews and presentations.
- Provided art program update to community stakeholders.
- Worked with artists to refine designs for submission to fabricators.
- Produced videos introducing artists, station artwork and youth art construction fence program.
- Continue ongoing community outreach.

SAFETY & SECURITY STATUS

- Participated in weekly progress meetings with WSCC's Management and Construction Management Team to discuss safety/security/quality related issues and construction schedules.
- Conducted bi-weekly Site Safety Walks with WSCC's Safety personnel to enhance overall safety awareness. Minor safety hazards observed and corrected immediately.
- Participated in WSCC's weekly Safety Tool-Box Meetings at Expo and Bellanca Yards and Executive and sub-contractor Safety Committee Meetings.
- Participated in WSCC's Park Mesa Readiness Review Meeting.
- Participated in WSCC's TBM and weekly safety meeting.
- Conducted All Hands Safety and Security Meeting.
- Conducted project tours for DWP, LADOT and various Metro Departments.
- Conducted Self-Rescuer Training for RE's and Construction Inspectors.
- Conducted CPR/First Aid classes at Southwest Yard Project Division 16.
- Participated in WSCC's Readiness Review Meetings for Storm Drain Installation and MSE Wall Coping Installation.
- Walsh/Shea reported 131,126 work hours and two recordable incidents for the month of April 2016. Total Project-to-Date work hours are 2,357,827 and twenty-three recordable incidents. The Project Incident Rate is 1.9. The Bureau of Labor Statistics (BLS) average recordable rate per 200,000 work-hours is 3.0.

THIRD PARTY AGREEMENT STATUS

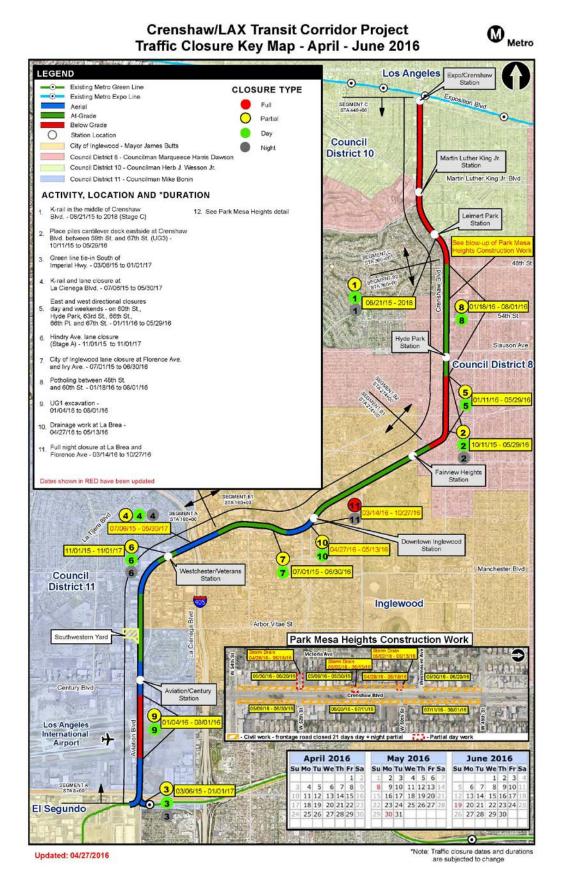
Third Party	Type of Agreement	Forecast Execution Date	Required Need Date	Status/ Comments	
City of Los Angeles	Amendment to Master Cooperative Agreement	N/A	N/A	Parties will work under 2003 MCA.	
City of Inglewood				Executed Letter of Agreement April 2012. Metro working on outstanding issues.	
Los Angeles Department of Water and Power	Amendment to Memorandum of Understanding	N/A	N/A	Metro and LADWP will work under 2002 Utility Cooperative Agreement which remains in effect.	
Los Angeles County Public Works	Letter of Agreement	4/11	3/12	Executed	
Caltrans	Amendment	8/11	3/12	Executed	
Private Utilities	LOA, MOU or UCA	5/11 to 5 / 13	N/A	Metro is working with affected third party utilities under work orders unless license agreements dictate relocation by utility company. No additional agreements required.	

ADVANCED UTILITY RELOCATION STATUS

 Tesoro Oil – design completed for 8" gas line. Construction was completed in January 2016.

CPUC CROSSING SUMMARY STATUS

- The CPUC has approved all packages.
- LACMTA filed a response on March 25, 2016 in response to a petition that was filed by a community member, Chandra V. Mosley, to modify the CPUC Decision that approved seven at-grade crossings on Crenshaw Blvd, located from 48th St. to 59th St.



Crenshaw/LAX Transit Project	
Monthly Project Status Report	

April 2016

CHRONOLOGY OF EVENTS

2003	Major Investment Study
April 2007	Board authorized the CEO to award Contract PS 4330-1968 to complete environmental clearance and conceptual engineering.
December 2009	Board adopted the LRT Alternative as the Locally preferred Alternative and received and filed the Crenshaw Transit Corridor DEIS/DEIR.
December 2009	Board authorized the CEO to award Contract No. EO117 for Phase I, Advanced Conceptual Engineering.
September 2010	Board authorized the CEO to exercise option with Contract No. EO117 for Phase II Preliminary Engineering.
April 2011	Board adopted the Arbor Vitae/Bellanca (Site 14) LPA for the Maintenance Facility Site
July 2011	Board approved Southwestern Yard cost allocation.
September 2011	Board approved Project Definition and certified Final Environmental Impact Report
October 2011	Board approved the Life-of-Project Budget of \$1.749 billion.
December 15, 2011	CTC reviewed the FEIS/FEIR and adopted the required resolution for future funding consideration.
December 23, 2011	Request for Qualifications for Contract C0988 C/LAX Transit Corridor was released to Industry.
December 30, 2011	Received Record of Decision from FTA.
February 10, 2012	Released Invitation for Bid for Contract C0990 Crenshaw/LAX Advanced Utility Relocations.
March 12, 2012	Received Statement of Qualifications for Contract C0988 C/LAX Transit Corridor.

Crenshaw/LAX Transit Project	
Monthly Project Status Report	

CHRONOLOGY OF EVENTS (Continued)

April 2016

May 16, 2012	Notification of pre-qualified proposers for Contract C0988 C/LAX Transit Corridor.
May 30, 2012	Awarded Contract No. C0990 C/LAX Advanced Utility Relocations to Metro Builders and Engineers Group LTD.
June 22, 2012	Released Request for Proposals for Contract C0988 C/LAX Transit Corridor.
August 24, 2012	Received approval from the Surface Transportation Board regarding BNSF Railway Company abandonment along five-mile Crenshaw Segment of the Harbor Branch ROW.
September 4, 2012	Preparation of a FONSI for Supplemental Environmental Assessment to the FEIS was approved by FTA.
September 28, 2012	Completed abandonment process with BNSF.
September 28, 2012	TIFIA and TIGER II Grants approved.
December 6, 2012	Received proposals for Contract C0988 C/LAX Transit Corridor.
February 22, 2013	Issued Amendment No. 8 requesting Best and Final Offers (BAFO) for Contract C0988 C/LAX Transit Corridor.
March 15, 2013	Received BAFO's for Contract C0988 C/LA Transit Corridor.
May 23, 2013	Board amended the Agency's FY14 Proposed Budget to include funding of \$80 million for an underground station at Leimert Park Village as part of the baseline project.
June 27,2013	The Board awarded Contract C0988 Crenshaw/LAX Transit Corridor to Walsh-Shea Corridor Constructors.
July 10, 2013	Issued notice of award to Walsh-Shea Corridor Constructors, Contract C0988 Crenshaw/LAX Transit Corridor.

CHRONOLOGY OF EVENTS (Continued)

August 1, 2013	United States Department of Transportation approves Metro's request to increase the Crenshaw/LAX Project Budget to \$2,058 million.
August 8, 2013	Issued notice of execution of the contract was issued to Walsh-Shea Corridor Constructors, Contract C0988 Crenshaw/LAX Transit Corridor.
September 10, 2013	Issued Notice to Proceed to Walsh-Shea Corridor Constructors, Contract C0988 Crenshaw/LAX Transit Project.
December 5, 2013	The Board approved Memorandum of Understanding with the Los Angeles World Airports for a parallel design and possible construction modifications near Aviation/Century Station to accommodate elements of LAWA's SPAS.
December 5, 2013	The Board awarded Contract C0992 with Rocla Concrete Tie, Inc; for the procurement of concrete ties and assembly items.
January 21, 2014	A Groundbreaking Ceremony was held at the Crenshaw/Exposition Station.
January 23, 2014	The Board awarded Contract C0992A Rail and Bumping Posts to LB Foster Rail Technologies Corp.
July 25, 2014	Century Crunch" – weekend demolition of the defunct Century railroad bridge at the intersection of Century Blvd. and Aviation.
August 21, 2014	Substantial Completion issued for Advanced Utility Relocations Contract C0990.
August 29, 2014	Released Invitation for Bid for Contract C0991 Crenshaw/LAX Southwestern Yard (Division 16) Maintenance Facility.
September 19, 2014	CPUC has approved all five (5) grade crossing applications and no further actions are required.
January 22, 2015	Received Technical and Price Bids for the Southwestern Yard (Division 16) Maintenance Facility.
March 25, 2015	Opened Price Bids for the Southwestern Yard (Division 16) Maintenance Facility.

Crenshaw/LAX Transit Project
Monthly Project Status Report

April 2016

CHRONOLOGY OF EVENTS (Continued)

May 28, 2015	The Board awarded Contract C0991 Division 16: Southwestern Yard to Hensel Phelps/Herzog JV. Also increased by \$22.0 million the Life of Project Budget for the Southwestern Yard Project to a new amount of \$307.2 million.
May 28, 2015	The Board approved Design Option 3 for the track alignment to accommodate the future Metro Connector Transit Station (96 th St. Station).
June 29, 2015	Issued Notice to Proceed to Hensel Phelps/Herzog JV, Contract C0991 Division 16: SouthwesternYard.
July 23, 2015	The Board approved the Official and Operational Names of the eight stations.
April 27, 2016	The Tunnel Boring Machine was launched and drilling from north to south of the alignment started.

CONTRACT C0988 STATUS

Crenshaw/LAX Transit Corridor

PE Design Contractor: Hatch Mott (HM)

CM Consultant: Stantec

Contractor: - Walsh Shea Corridor Constructors (WSCC)

Progress/Work Completed:

Construction

- Continued potholing along the Grade Crossing, Park Mesa & UG #3 .
- Continued geotechnical monitoring at Vernon, MLK, Expo, UG#4, #3 & #1.
- Continued with SWPPP Implementation Segments A, B & C.
- Completed the TBM assembly at the Bellanca Yard.
- Continued TBM lowering and Assembly.
- Commenced TBM System Testing and Train Set up
- Completed removing struts & walers, invert slab and invert conduit & plumbing construction at Expo Station.
- Continued waterproofing, and lower walls at Expo Station.
- Completed mud slab & ground grid at MLK Station.
- Continued soil excavation & SOE installation at Vernon Station.
- Completed Jet Grouting for Cross Passage #4.
- Continued excavation, lagging, utility hanging & bracing tier 1 at UG #4.
- Continued SOE Installation at UG #3.
- Continued Ballast Wall & OCS foundation construction in Seg B1.
- Completed excavation at West Station.
- Continued superstructure work at the La Brea bridge.
- Continued MSE wall panel erection/back fill at La Brea East Wall.
- Continued structural concrete work at the Pedestrian Underpass.
- Continued abutment wall installation at I-405 Bridge.
- Continued subgrade guideway cut of Segment A north of Arbor Vitae.
- Continued excavation, bracing installation, mud slab, waterproofing, & Invert slab at UG #1.
- Continued falsework construction at the Green Line Tie-In.
- Continued Green Line MSE Wall excavation, level pad & panel setting and backfill.

Contract No.: C0988

MLK station.

Status as of April 30, 2016



- **Areas of Concern:** Possible cobbles and boulders found during excavation at Expo and
- Station excavation impacted by excessive water inflow at EXPO Station
- Segment A guideway work may be impacted by implementation of a westward shifting of the LRT tracts in Guideway at Segment A for the future 96th Street Station.
- Street package decision by the city family reviews may impact the start of the Park Mesa street work.
- Contractor's schedule does not accurately forecast its work efforts.

Schedule Assessment:

Contractor's April 2016 schedule update indicates Milestone 1 - Contract Substantial Completion is 180 calendar days behind the current contract date.

Cost Assessment:

The current construction contract cost forecast is \$1,292.98 million and is within the Board authorized budget.

The Contractor submitted their 32nd payment application in the approved amount of \$18,941,034.32 $\,$

*Please note that not all executed modifications may have been included in the Contractor current payment application.

Schedule Summary:

1. Date of Award:	08/01/13
2. Notice to Proceed:	09/10/13
3. Original Substantial Completion Duration:	1824
4. Current Substantial Completion Duration:	1859

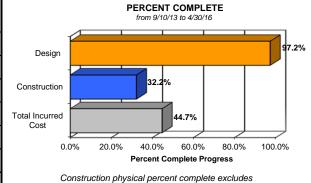
5. Elapsed Time from NTP: 963 51.8%

Cos	st Summary:	\$ In millions
1.	Award Value:	1,272.63
2.	Executed Modifications:	20.03

3. Approved Change Orders: 2.664. Current Contract Value (1 + 2 + 3): 1,295.32

5. Incurred Cost: 575.50

Milestones	Original Contract	Current Contract	Forecast	Calendar Day Variance
Milestone 1 - Contract Substantial Completion	09/08/18	10/13/18	04/11/19	-180
Milestone 2 - UFS Completion	03/09/18	04/13/18	10/03/18	-173
Milestone 3 - Commence SIT Phase I	06/09/18	07/14/18	01/11/19	-181
Milestone 4 - Const./Turnover Parcels SW-0101, 0102, 0103	12/04/15	03/04/16	05/01/16	-58
Milestone 5 - Const./Turnover Parcels SW-0002, 0003, 0004, 0104	06/05/17	06/05/17	06/05/17	0
Milestone 6 - Const./Turnover Parcels SW-0001	08/01/17	08/01/17	07/31/17	1
Milestone 7 - Provide Access for Division 16 Southwestern Yard D-B	01/23/16	01/23/16	02/22/16A	-30



mobilization and general requirements

CONTRACT C0990 STATUS

Crenshaw/LAX Advanced Utility Relocations

PE Design Contractor: Hat CM Consultant: Stantec					Contract No.: C0990	- Caril
Contractor: - Metro Builders and Engineers Group LTD					Status as of April 30, 2016	
Progress/Work Completed - The construction was substan - Board authorized in March a s - Contract in close out.	itially comp	leted on Au with the co	igust 21, 20' ntractor.	14	Areas of Concern:	
Schedule Assessment: - Metro granted substantial completion to Metro Builders on August 21, 2014, which is 276 calender days behind The settlement with the contractor settled all time issues.				Cost Assessment: - The final contract is \$11,316,140.00 and has to contractor. * A modification in process for credit of unuse the amount of \$123,156.85.		
Schedule Summary:					Cost Summary:	\$ In millions
Date of Award:		05/30/12			Award Value:	7.83
2. Notice to Proceed:		07/17/12			2. Executed Modifications:*	3.49
Original Substantial Comple	tion Duration	365			3. Approved Change Orders:	-
Current Substantial Comple					4. Current Contract Value (1 + 2 + 3):	11.32
5. Elapsed Time from NTP:		753			5. Incurred Cost:	11.32
Milestones Milestone 1 - Contract Substantial	Original Contract	Current Contract	Forecast	Calendar Day Variance	PERCENT COMPL from 7/17/12 to 8/21/	
Completion	07/17/13	11/18/13	08/21/14A	-276	Design 0%	
					Construction	100%
					Total Incurred Cost	100%
					0% 20% 40% 60% Percent Complete Pr	80% 100% rogress
					Construction physical percent comple mobilization and general requirement	

CONTRACT C0991 STATUS

Southwestern Yard

PE Design Contractor: Hatch Mott (HM)

CM Consultant: Stantec

Contractor: - Hensel Phelps / Herzog JV

Contract No.: C0991

Status as of April 30, 2016

4

Progress/Work Completed:

Progress/Work Completed:

- Baseline schedule was submitted on November 16th and was approved as noted on December 11, 2015.
- Contractor is working on early contract required submittals.
- Design submittal 85.1% and 100% of APDU 1 were submitted.
- Design Submittal 85% of APDU 2-A was submitted $\,$ and continued working on Design Submittal ADPU-2B.
- Phase I right of way will be turned over to HPH on May 2, 2016.
- HPH has commenced construction mobilization, including preparation for site clearing and demilition.

Areas of Concern:

- Contractor is behind in submitting their monthly schedule update and invoicing. Path forward is established to bring the schedule update and invoicing current by end of June 2016.

Schedule Assessment:

- MOD #02 was executed extending milestones 2, 3, 4 by 90 calendar days as shown on the Schedule milestone section below.
- MOD #06 was also executed to adjust the contract Rain Days allowance.
 C0991 contract critical path runs through design and start of construction for the Main Shop Facility.
- Interface coordination between HPH, WSCC, City, 3rd Parties are being managed proactively to address and to minimize any impact on the project cost and Schedule.
- Metro is expanding the Risk Register for SWY as part of the overal Crenshaw project risk process.

Cost Assessment:

- Contract to Hensel Phelps / Herzog JV was awarded for \$172.3 million
- March 2016 pay application has been approved by Metro.
- Trends are being prepared for funding adjustments as necessary
- Separate cash flow and contingency draw down curves are being prepared and will be included in future report.

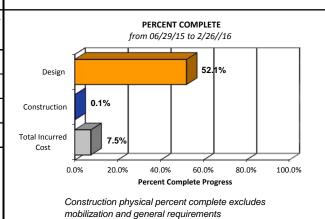
Schedule Summary:

1.	Date of Award:	28-May-1
2.	Notice to Proceed:	29-Jun-1
3.	Original Substantial Completion Duration:	1,220
4.	Current Substantial Completion Duration:	1,311
5.	Elapsed Time from NTP:	305

Cost Summary:	\$ In millions
1. Award Value:	172.31
2. Executed Modifications:	0.03
3. Approved Change Orders:	0.03
4. Current Contract Value (1 + 2 + 3):	172.36
5. Incurred Cost (thru April 2016):	14.63

Milestones	Original Contract	Current Contract	Forecast	Calendar Day Variance
MS#1 Yard and Main Shop Design Completion	26-Oct-16	26-Oct-16	26-Oct-16	0
MS#2 Main Shop Communication Room Completion	15-Jan-18	16-Apr-18	16-Apr-18	0
MS#3 Main Shop Substantial Completion	30-Apr-18	30-Jul-18	30-Jul-18	0
MS#4 Southwestern Yard Substantial Completion	31-Oct-18	30-Jan-19	30-Jan-19	0

Note: Schedule status through Jan 2016



CONTRACT C0992 STATUS

Concrete Ties

PE Design Contractor: Hatch M CM Consultant: Stantec Contractor: Rocla Concrete Tie			Contract No.: C0992 Status as of April 30, 2016					
Progress/Work Completed: - All 19,936 concrete ties have been (Contract C0988) Contract is closed out.	received on	site by the	design-buik	der	Areas of Concern:			
Schedule Assessment: All concrete ties were delivered to job	o site by Au	gust 15, 20	114.		Cost Assessment: The final contract cost is \$2.25 million and has been completely pa to contractor	aid		
Schedule Summary:					Cost Summary: \$ In millions			
Date of Award:			12/10/13		1. Award Value: 2.16			
Notice to Proceed:			12/23/13		2. Executed Modifications: 0.09			
Original Substantial Completion D	uration:		220		Approved Change Orders:			
Current Substantial Completion D			235		4. Current Contract Value (1 + 2 + 3): - 2.25			
Elapsed Time from NTP:	aration.		235		5. Incurred Cost: 2.25			
Milestones	Original Contract	Current Contract	Forecast	Calendar Day Variance	PERCENT COMPLETE from 12/23/2013 to 8/15/14			
Milestone 1 - Contract Substantial Completion	07/31/14	08/15/14	08/15/14A	0	200	00%		
'				0	Delivered 10	,0 /0		
				0	Shipped 100	00%		
				0	Total Incurred Cost	00%		
				0				
				0	0% 20% 40% 60% 80% 100% Percent Complete Progress			
					Construction physical percent complete excludes mobilization and general requirements			

CONTRACT C0992A STATUS

Running Rail and Bumping Posts

PE Design Contractor: Hatch M CM Consultant: Stantec Contractor: LB Foster Rail Tecl		orp	Contract No.: C0992A Status as of April 30, 2016		
Progress/Work Completed: - All 115RE SS Blank Stick Rails ha: - All 115RE HH rail have been delive - All Bumping Posts have been delive - Contract is closed out.	ve been del ered to job s	ivered to th	-		Areas of Concern:
Schedule Assessment: All running rails and bumping posts w	vere deliver	ed ahead c	of the schedu	le.	Cost Assessment: The final contract cost is \$5,2 million and has been completely paid to contractor.
Schedule Summary:					Cost Summary: \$ In millions
Date of Award:			01/23/14		1. Award Value: 5.2
Notice to Proceed:			03/07/14		Executed Modifications:
	Auration:		300		
Original Substantial Completion E Current Substantial Completion F			558		Approved Change Orders: Current Contract Value (1 + 2 + 3): 5.2
Current Substantial Completion D Standard Time from NTD:	uralion.				4. Outlone Contract Value (1 1 2 1 6).
5. Elapsed Time from NTP:			448		5. Incurred Cost: 5.2
Milestones	Original Contract	Current Contract	Forecast	Calendar Day Variance	PERCENT COMPLETE from 3/7/2014 to 05/29/15
Milestone 1 - Contract Substantial	12/31/14	09/30/15	05/08/15A	145	
Completion					Construction 100%
				0	Construction
				0	
				0	Total Incurred Cost
				0	0% 20% 40% 60% 80% 100%
				0	Percent Complete Progress Construction physical percent complete excludes
					mobilization and general requirements

CONSTRUCTION PHOTOGRAPHS



GREENLINE UNDERPASS – Exterior girder, overhang and soffit formwork placement ongoing.



MSE WALL 17L & R (North of Imperial Highway) – Subgrade preparation, leveling pad placement, precast panel erection, embankment backfill and compaction.



UNDERGROUND #1 – Invert concrete placement ongoing at south end.



AVIATION/CENTURY BRIDGE – Placed concrete for the girder stems and soffit at Frame 1A.



MANCHESTER BRIDGE – Falsework fabrication and erection begins.



FAIRVIEW HEIGHTS STATION – Crews installed the HDPE membrane; MEP embeds and invert rebar.



FAIRVIEW HEIGHTS STATION – Station foundation footing completed. Crews worked on installing stem wall forms and rebar.



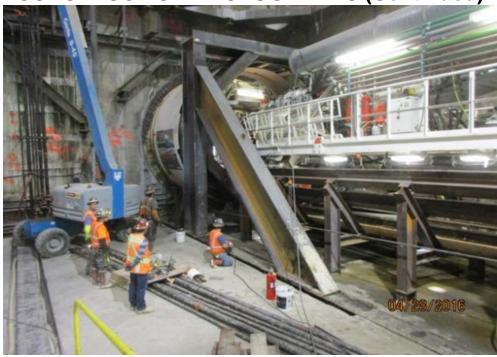
MARTIN LUTHER KING JR. STATION - Installation of electrical conduits, plumbing and rebar.



EXPOSITION/CRENSHAW STATION – Installation of waterproofing at west wall of station box.



EXPOSITION/CRENSHAW STATION – Looking north from the TBM towards the trailing gear gantries.



EXPOSITION/CRENSHAW STATION – Advancing TBM and thrust frame. The TBM is buried up to the tail-can.



EXPOSITION/CRENSHAW STATION - Placement of 1st section of lower station wall (east side of station box).

APPENDIX PROJECT COST STATUS – SOUTHWESTERN YARD

UNITS	IN DOLLARS										
SCC	DESCRIPTION	ORIGINAL	CURREN	T BUDGET	COMMI	TMENTS	EXPEN	DITURES	CURRENT	FORECAST	FORECAST
CODE	DESCRIPTION	BUDGET	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	VARIANCE
10	GUIDEWAYS	0	0	0	0	0	0	0	0	0	0
20	STATIONS	0	0	0	0	0	0	0	0	0	0
30	SUPPORT FACILITIES (Y & S)	85,546,835	0	85,189,999	0	86,532,695	0	0	0	86,889,531	1,699,532
40	SITEWORK\SPECIAL CONDITIONS	35,932,000	0	38,273,000	0	38,525,629	234,890	11,525,615	0	38,273,000	0
50	SYSTEMS	25,784,616	0	32,991,000	0	32,991,000	0	0	0	32,991,000	0
	(10-50) CONSTRUCTION	147,263,451	0	156,453,999	0	158,049,324	234,890	11,525,615	0	158,153,531	1,699,532
60	RIGHT-OF-WAY	99,910,000	0	100,000,000	5,764,746	105,615,578	5,764,746	105,526,861	0	100,000,000	(0)
70	VEHICLES	0	0	0	0	0	0	0	0	0	0
80	PROFESSIONAL SERVICES	35,601,095	0	33,639,631	480,696	27,246,524	997,229	13,525,212	0	31,815,199	(1,824,432)
90	PROJECT CONTINGENCY	13,659,732	0	17,106,370	0	0	0	0	0	17,231,270	124,900
TOTAL	<u> </u>	296,434,278	0	307,200,000	6,245,443	290,911,426	6,996,866	130,577,688	0	307,200,000	(0)

C0991 PAINT & BODY SHOP PROJECT										
DESCRIPTION	ORIGINAL	CURREN	T BUDGET	COMMIT	MENTS	EXPEND	DITURES	CURRENT	FORECAST	FORECAST
DESCRIF HON	BUDGET	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	VARIANCE
861301 DIV 22 PAINT & BODY SHOP	11,000,000	0	11,000,000	0	6,915,732	0	193,448	0	11,000,000	0

PROJECT GRAND TOTAL	307.434.278	۸	318.200.000	6.245.443	297.827.158	6.996.866	130.771.136	0	318.200.000	(0)
TROSECT GRAND TOTAL	307,434,270	U	310,200,000	0,243,443	291,021,100	0,770,000	130,771,130	U	310,200,000	(0)

PROJECT COST ANALYSIS

The project number 865512, 860003 and 861301 are internal to Metro and are used to differentiate between various components of the project.

Original Budget:

The Board in May 2015 established the Life-of-Project (LOP) budget of \$307.2 million for the Southwestern Yard Project.

Current Budget:

The Board in May 2015 approved an increase for the funding for the Southwestern Yard by \$22.0 million to increase the Life-of-Project (LOP) budget to \$307.2 million to allow for the award of design-build Contract C0991 Southwestern Yard Project. Of the total \$307.2 million, \$150.2 million is funded in the Crenshaw/LAX Transit Project life of project budget which includes the original 49% allocation amount of \$139.4 million plus a new \$10.8 million reduction from the Crenshaw/LAX Transit Project contingency line item in the budget. There is no increase in the LOP for the Crenshaw/LAX Transit Project. The original 51% share associated with future Green Line related extensions in an amount of \$145.8 million was increased by \$11.2 million for a new total of \$157.0 million.

In addition to the \$307.2 million there is another \$11.0 million that is the budget for the paint and body shop, under another Metro internal cost project number, which funding was approved by a prior agreement for a paint and body shop to support the Green Line shops and was required for the award of the design-build Contract C0991 Southwestern Yard Project.

The grand total of the combined cost is \$318.2 million.

APPENDIX PROJECT COST ANALYSIS (Continued)

Current Forecast:

The forecast is under review.

Commitments:

The commitments are cumulative through April 30, 2016.

Total commitments increased by \$6.24 million for this period due to the following:

- SCC-60
 - Right-of-Way (ROW) commitment increased by \$5.76 million.
- SCC-80
 - Other professional services such as legal, construction management and labor increased by \$0.48

The \$297.8 million in commitments to date represents 93.6% of the current budget.

Expenditures:

The expenditures are cumulative through April 30, 2016.

The total expenditures increased by \$7.0 million for this period due to the following:

- SCC-40
 - Contractor's Hensel Philips/Herzog JV expenditure increase of \$0.23 million.
- SCC-60
 - Acquisition and Relocation expenditure increase of \$5.76 million.
 - The Right-of-Way costs exceed the current budget. Metro is reviewing all Right-of-Way costs expended to date to ensure all costs are properly allocated to the Southwestern Yard Project. A journal voucher is prepared to re-allocate \$2,273,089.00 to the Paint and Body Shop Project (861301).
- SCC-80
 - o Agency expenditure increase by \$0.31 million for March/April.
 - Contractor's Hensel Philips/Herzog JV design expenditure increase of \$0.70 million.

The \$130.8 million in expenditures to date represents 41.1% of the current budget.

COST AND BUDGET TERMINOLOGY

Project Cost Descriptions -

ORIGINAL BUDGET The Original Project Budget as established by the Metropolitan

Transportation Authority (Metro) Board on October 27, 2011.

The Original Budget plus all budget amendments approved by **CURRENT BUDGET**

formal Metro Board action. Also referred to as Approved

Budget.

COMMITMENTS The total of actual contracts awarded, executed change orders

> or amendments, approved work orders of Master Cooperative Agreements, offers accepted for purchase of real estate, and other Metro actions which have been spent or result in the

obligation of specific expenditures at a future time.

EXPENDITURES The total dollar amount of funds expended by Metro for

> contractor or consultant invoices, third party invoices, staff salaries, real estate and other expenses that is reported in

Metro's Financial Information System (FIS).

CURRENT FORECAST The best estimate of the final cost of the project when all

checks have been issued and the project is closed out. Current Forecast is composed of actual costs incurred to date, the best estimate of work remaining and a current risk assessment for

each budgeted cost item.

Cost Report by Element Descriptions -

CONSTRUCTION Includes construction contracts. Cost associated with

Guideways, Stations, Southwestern Yard, Sitework/Special.

Conditions and Systems.

RIGHT-OF-WAY Includes purchase cost of parcels, easements, right-of-entry

permits, escrow fees, contracted real estate appraisals and

tenant relocation.

VEHICLES Includes the purchase of LRT vehicles and spare parts for the

project.

PROFESSIONAL

Includes design engineering, project management assistance, construction management support services, legal counsel,

SERVICES

agency staff costs, and other specialty consultants.

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.

PROJECT REVENUE Includes all revenue receivable to the Metro as a direct result

of project activities. This includes cost sharing construction

items, insurance premium rebates, and the like.