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

LOCATION: Crenshaw Blvd at Exposition to Green Line DESIGN/CONSULTANT: Hatch Mott						CONSTRUCTION MANAGEMENT CONSULTANT: Stantec CONTRACTORS: Walsh-Shea Corridor Constructors (Alignment) and Hensel Phelps / Herzog (Southwestern Yard)					
PROJECT PHOTO: Crews placed the first concrete lift for a segment of the cut & cover section utilizing the traveler system and mass concrete thermal control plan.						WORK COMPLETED PAST MONTH:					
						o Continued tunnel segment production. o Continued TBM Mining o Continued waterproofing installation for the lower walls at the Expo Station. o Continued waterproofing installation for the lower walls at the MLK Station o Continued waterproofing installation for the lower walls at the MLK Station o Completed construction of the mud slab at Vernon Station. o Completed installation of the elevator casing at Vernon Station o Commenced installation of Tier 2 bracing at UG #4 o Continued demolition and replacement of curb, gutter, sidewalks and driveways at Park Mesa Heights o Continued setting the precast panels for the cantilevers at UG #3 o Completed footings at La Brea Station o Completed construction of Century bridge superstructure o Completed construction of Green Line superstructure					
EXPENDITURE STATUS (\$ In Millions)		DENT	EVDE	IDED	DEDOENT	SCHEDULE ASSESSMENT					
ACTIVITIES		RRENT DGET	EXPEN AMO		PERCENT EXPENDED	MAJOR SCHEDULE	PRIOR PLAN	CURRENT PLAN	VARIANCE WEEKS		
ACTIVITIES	ВО	DGET	AIVIO	UNI	EXPENDED	ACTIVITIES Environmental	PLAN	PLAN	VARIANCE WEEKS		
DEGICN	\$	100.7	e .	101.6	00.00/		Con 11	Con 11	Complete		
DESIGN) a	136.7	\$	121.6	88.9%	FEIS/FEIR Record of Decision	Sep-11 Dec-11	•	Complete Complete		
RIGHT-OF-WAY	\$	127.4	\$	120.3	94.4%	Record of Decision	Dec-11	Dec-11	Complete		
RIGHT-OF-WAT	J	127.4	Ф	120.3	94.470	Design					
CONSTRUCTION	\$	1,353.1	\$:	599.5	44.3%	Preliminary Engineering	Nov-11	Nov-11	Complete		
		,				Final Design	Sep-15		11.3 months behind		
OTHER	\$	440.8	\$	157.3	35.7%	3		- 3			
OTTLER						Right-of-Way					
TOTAL	\$ 2	2,058.0	\$ 9	998.6	48.5%	Full-take parcels available	Jan-15	Jan-15	Complete		
Note: Cost expended as o	of July	31, 2016	S.			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	Apr-19	6.2 months behind		
 Design-builder's ability to o Timely submittal of WSC 					view by City	Revenue Service Date	Oct-19		On schedule*		
of Los Angeles.	JO S GE	esigii sui	Jiiiiiiais	and ie	view by City	The D-B Substantial Complete pr					
o 96th street station accor	nodati	ons cost	/schedul	e impa	acts.	contract modification in March 20	•	ounica by a	55-day concurrent delay		
						*Note: Revenue Service Date includes a significant reduction in contingency.					
ROW ACQUISITION	ON PLAN ACQUIRED REMAININ					CRITICAL ACTIVITIES / 3 N	ONTH LOO	K AHEAD			
FULL TAKES		37	35	5	2	o Continued construction of Manchester bridge Superstructure o TBM south bound tunnel break thru at MLK Station o Complete water proofing/ protection slab work at Leimert Park and pour box					
PARTIAL TAKES		27	24	1	3	o Pour platform walls and deck at Fairview Heights station.					
TEMPORARY EASEMENTS		15	13	3	2						
TOTAL PARCELS		79	72	2	7						
	<u> </u>	-	L		·						

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 (Alignment) – The design-builder, Walsh-Shea Corridor Constructors (WSCC) continues remaining base final design and change work. Construction efforts by the design-builder continued along all major areas. The major construction activity this month on the Project's critical path is the continuing of mining operations. The contractor continued tunnel boring of the south bound tunnel from Expo/Crenshaw Station heading to MLK Station. The break through at MLK Station is planned for August 14, 2016 where it will be moved across the floor of the station to the other side, and then mining will recommence from MLK Station to Leimert Park Station.

Design- Build Contract C0991 Southwestern Yard (Division 16) – The design-builder, Hensel Phelps / Herzog JV was issued a notice-to-proceed on June 29, 2015. The design-builder continues final design and submission of required submittals. Design activities continued including reconciliation of various design packages. Contractor commenced construction activities in May 2106. Completed temporary fence, cutting and capping utilities, demolition of slabs and other underground structures including abatement of hazardous material within Phase 1 right-of-way area. Started site mass excavation, exporting over 6,000 cy of excess soil and excavation of the Main Shop building footprint.

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 72 parcels acquired through May 2016. Thirty-five full takes, 24 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

PROJECT OVERVIEW (Continued)

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.

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%, (includes Measure R TIFIA Loan), state funding 10.5% and federal funding 9.6%.

PROJECT OVERVIEW (Continued)

The project commitments thru July 2016 are \$1,861.7 million or 90.4 % of the Current Budget. The project expenditures thru July 2016 are \$998.6 million or 48.5 % of the Current Budget.

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 no change in project status. Metro is reporting a projected 206 calendar day delay to the design-builder's contract substantial completion milestone (forecast 2019).

MANAGEMENT ISSUES

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

Status/Action Metro and the City of Inglewood are finalizing an agreement which is anticipated to be executed in the near future.

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

<u>Status/Action</u> There are a few remaining final design submittals that are required to be submitted by the Contractor for City of Los Angeles review. Metro will continue to take action and strictly monitor the review comments from the agencies. Ensure WSCC submittals are coordinated, quality checked and submitted within necessary timeline for reviews.

Concern No. 3: Design-builders construction schedule

<u>Status/Action</u> This month the project schedule reflects no change in project status. Metro is reporting a projected 206 calendar day delay to the design-builder's contract substantial completion milestone (forecast 2019).

Concern No. 4: 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. The Metro Board approved \$7,400,000 for the direct construction costs for FY17, which was required to commence construction to prevent any additional schedule delay impact to the Project. The design submittal milestones to date have been completed earlier than planned. Metro continues to work with the design-builder to minimize impacts to construction. Metro is continuing to negotiate with the design-builder on the total time the work will take to accommodate the future Airport Metro Connector Transit Station. 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.

Crenshaw/LAX Transit Project
Monthly Project Status Report

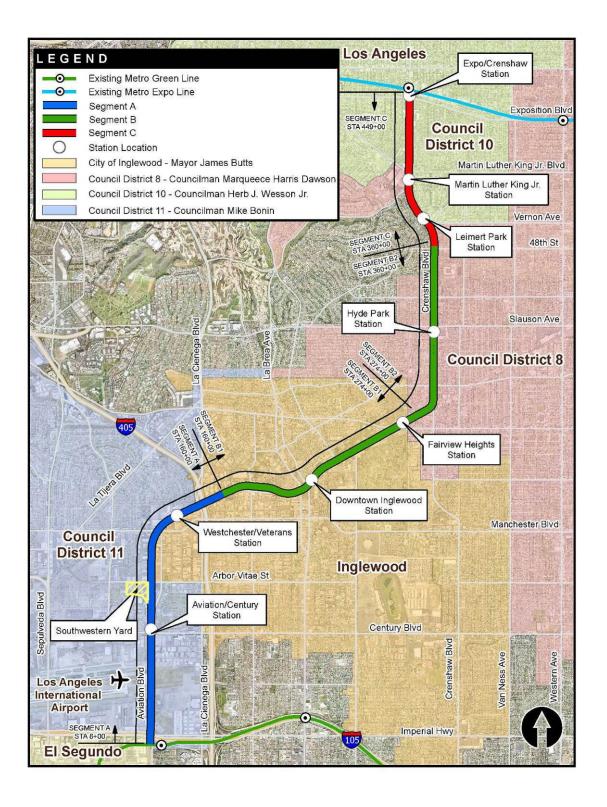
July 2016

MANAGEMENT ISSUES (Continued)

Concern No. 5: Design-builder's ability to meet their planned tunneling productivity rate.

Status/Action After an initial learning curve the contractor plans to achieve a rate of 74 feet per work day tunneling toward MLK Station and 93 feet per work day tunneling from MLK Station to Leimert Park Station. Thru the end of July 2016, the contractor is achieving an average of 40 feet per work day. Metro is closely monitoring the daily production rate and the contractor is aware that they need to mitigate any of their delay in a timely manner.

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.

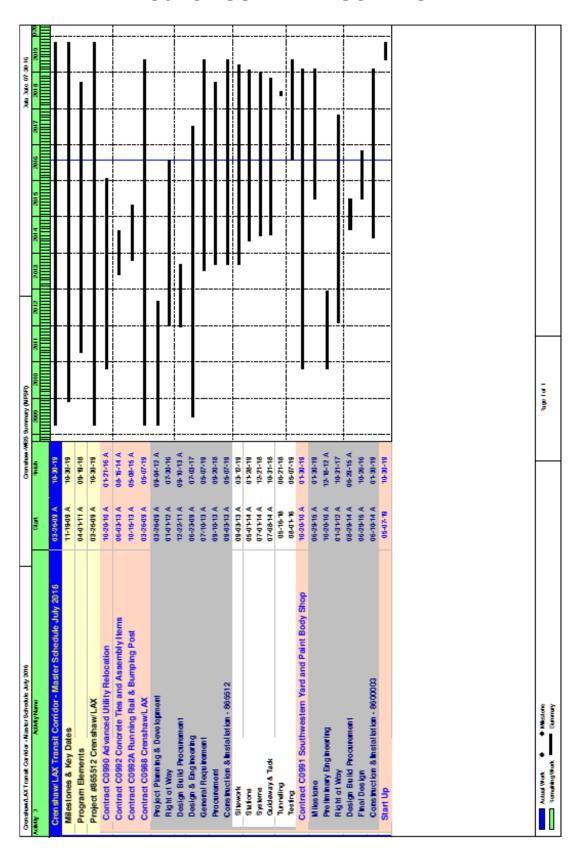
KEY MILESTONES SIX- MONTH LOOK AHEAD

	Milestone Date	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17
			30p 10	000.10	.107 10	200 10	Juli 11
C0988 - OCS Foundations - Arbor Vitae to Manchester	16 - Aug - 16	VILLE O STEE					
C0988 - TPSS-01-02-06 Permanent Power Drop - Engineering Review	18 - Aug - 16						
C0988 - Ballast Wall - Trench and Excavate Footings and Pour - La Brea to Brynhurst	19 - Aug - 16	MIS DEEL					
C0988 - FRP Platform Grade Beams Walls - Downtown Inglewood	19 - Aug - 16	WALES DE STEE					
C0988 - Ductbank - Excavate-Place Conduit-Pour - La Brea to Bryhurst	26 - Aug - 16	THE CAME					
C0988 - Ballast Wall - F/R/P Wall, Footing & Bulkheads - La Brea to Brynhurst	02 - Sep - 16						
C0991 - Main Shop Building Construction Begins	26 - Sep - 16		Δ				
C0988 - TPSS-01-02-06- Permanent Power Drop - Utility Install Infrastructure and conduit	27 - Sep - 16		- Onn				
C0988 - TBM Mining & Segment Installation - 401+05 to 383+39 - SB	28 - Sep - 16						
C0988 - Remove TBM & Retreive Trailing Gear to Expo Station	12 - Oct - 16						
C0988 - F/R/P OCS Foundation - Bridge - Aviation / Century Bridge	12 - Oct - 16			WALL DEET			
C0988 - TPSS-01-02-06 Permanent Power Drop - SCE - Utility Install Equipment	17 - Oct - 16			MA DELLA			
C0988 - Erect Falsework (Span 2) - I-405 Bridge	18 - Oct - 16			PALSE STATE			
C0991 - Completion of Design	26 - Oct - 16			\triangle			
C0988 - Ductbank - Manhole / Vault / Pad / Pull Box - Aviation & Century Bridge	31 - Oct - 16						
C0988 - TPSS: No.2 Upgrade from 1.5 MW to 2.0 MW	09 - Nov - 16				Mar Carry		
C0988 - Construct Escalator Foundations - Aviation/Century	10 - Nov - 16						
C0988 - TPSS-04-07-08 Permanent Power Drop - SCE - Utility Install Infrastructure and Conduit	11 - Nov - 16				•		
C0988 - Bridge F/R/P OCS Foundation - Manchester Bridge	15 - Nov - 16						
C0988 - Ductbank - Manhole/Vault/Pad/Pull Box - From TPSS-03 to Manchester Bridge	15 - Nov - 16						
C0988 - TPSS-05-07-09 Permanent Power Drop - LADWP - Utility Install Cable	30 - Nov - 16						
C0988 - F/R/P Platform Slab - Aviation/Century	05 - Dec - 16						
C0988 - Erect Falsework (Span 4) - I-405 Bridge	15 - Dec - 16						
C0988 - Prepare for TBM Arrival (NB) - MLK	19 - Dec - 16						
C0988 - Construct Century Blvd. Future Right Turn Lane (LAWA)	30 - Dec - 16					MIS O SEEL	
C0988 - EL - OCS Foundation - Aerial Structure #1	18 - Jan - 17						PRIZE D 28111
C0988 - Form Escalator 1&2 Stair and Wall - MLK	26 - Jan - 17						THE CHILD
C0988 - F/R/P TC&C Foundation - TCC&C #3	05 - Jan - 17						nus (Ban

MTA Staff

MTA Board Action

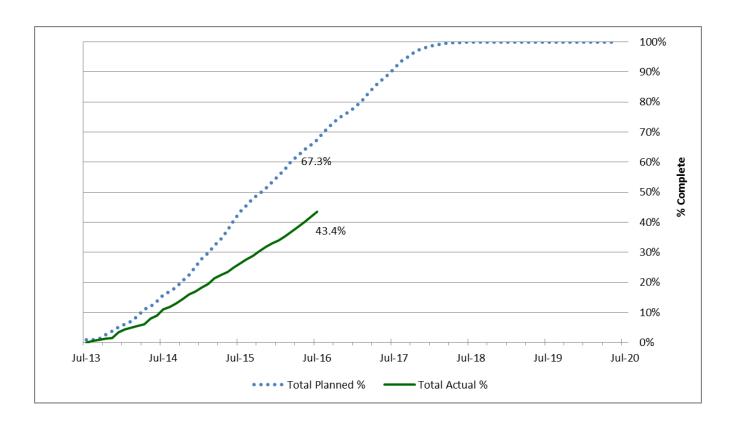
PROJECT SUMMARY SCHEDULE



SCHEDULE MEASUREMENTS

	Status	Change from Last 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%	0.3%	Behind Schedule
Contract C0990	100%	None	Design Completed
Contract C0991	72.5%	10.9%	On Schedule
Contract C0992	100%	None	Design Completed
Contract C0992A	100%	None	Design Completed
Construction Contracts Progress:			
Contract C0988	37.5%	1.8%	Behind Schedule
Contract C0990	100%	None	Substantially Completed
Contract C0991	0.8%	0.0%	Construction Started May 2016
Contract C0992	100%	None	Substantially Completed
Contract C0992A	100%	None	Substantially Completed

OVERALL CONSTRUCTION PROGRESS CURVE STATUS



The actual overall construction progress is 43.4% versus a planned progress of 67.3% through July 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 physical progress percentage excludes non-construction items such as contractor's 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 procure the tunnel boring machine (TBM) and equipment. Following are the major milestone dates for TBM:

	Baseline	Jun-16	Jul-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	04/27/16A	04/27/16A	
TBM SB Break through at Vernon	09/17/15	09/09/16	09/28/16	-19
TBM NB Tunnel Launch at Expo	10/29/15	10/21/16	11/14/16	-24
TBM NB Break through at Vernon	03/21/16	02/27/17	03/16/17	-17

Light Rail Vehicles

The Board approved exercising Option 1 of Contract P3010 with Kinki Sharyo 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.

<u>Ticket Vending Machines</u>

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

Tunnel Boring Machine Stations- Elevators Stations- Escalators Track- Special Trackwork Track- Restraining Rail and Grade Crossing Ties TPSS- Substation 1 TPSS- Substation 2 TPSS- Substation 3 TPSS- Substation 5 TPSS- Substation 6 TPSS-Substation 7 TPSS- Substation 8	Executed Executed Selected Selected 4/13/2015 4/8/2015 6/8/2015 8/10/2015 10/8/2015 1/7/2016 1/7/2016	Needed By Complete 3/25/2015 5/22/2015 3/21/2015 5/1/2015 5/23/2015 7/23/2015 9/24/2015 11/22/2015 2/21/2016	Completed Pits 10/5/15 7/1/2016 10/26/2015 2/10/2016 4/2/2016 6/2/2016 8/4/2016 10/2/2016	9/1/2015 Pits 10/5/15 10/5/2016 11/12/2015 4/1/2016 6/1/2016 8/1/2016
Stations- Escalators Track- Special Trackwork Track- Restraining Rail and Grade Crossing Ties TPSS- Substation 1 TPSS- Substation 2 TPSS- Substation 3 TPSS- Substation 5 TPSS- Substation 6 TPSS-Substation 7 TPSS- Substation 8	Selected Selected 4/13/2015 4/8/2015 6/8/2015 8/10/2015 10/8/2015 1/7/2016 1/7/2016	5/22/2015 3/21/2015 5/1/2015 5/23/2015 7/23/2015 9/24/2015 11/22/2015 2/21/2016	7/1/2016 10/26/2015 2/10/2016 4/2/2016 6/2/2016 8/4/2016 10/2/2016	10/5/2016 11/12/2015 4/1/2016 6/1/2016 8/1/2016
Track- Special Trackwork Track- Restraining Rail and Grade Crossing Ties TPSS- Substation 1 TPSS- Substation 2 TPSS- Substation 3 TPSS- Substation 5 TPSS- Substation 6 TPSS-Substation 7 TPSS- Substation 8	Selected 4/13/2015 4/8/2015 6/8/2015 8/10/2015 10/8/2015 1/7/2016 3/7/2016	3/21/2015 5/1/2015 5/23/2015 7/23/2015 9/24/2015 11/22/2015 2/21/2016	10/26/2015 2/10/2016 4/2/2016 6/2/2016 8/4/2016 10/2/2016	11/12/2015 4/1/2016 6/1/2016 8/1/2016
Track- Restraining Rail and Grade Crossing Ties TPSS- Substation 1 TPSS- Substation 2 TPSS- Substation 3 TPSS- Substation 5 TPSS- Substation 6 TPSS-Substation 7 TPSS- Substation 8	4/13/2015 4/8/2015 6/8/2015 8/10/2015 10/8/2015 1/7/2016 3/7/2016	5/1/2015 5/23/2015 7/23/2015 9/24/2015 11/22/2015 2/21/2016	2/10/2016 4/2/2016 6/2/2016 8/4/2016 10/2/2016	4/1/2016 6/1/2016 8/1/2016
TPSS- Substation 1 TPSS- Substation 2 TPSS- Substation 3 TPSS- Substation 5 TPSS- Substation 6 TPSS-Substation 7 TPSS- Substation 8	4/8/2015 6/8/2015 8/10/2015 10/8/2015 1/7/2016 3/7/2016	5/23/2015 7/23/2015 9/24/2015 11/22/2015 2/21/2016	4/2/2016 6/2/2016 8/4/2016 10/2/2016	6/1/2016 8/1/2016
TPSS- Substation 1 TPSS- Substation 2 TPSS- Substation 3 TPSS- Substation 5 TPSS- Substation 6 TPSS-Substation 7 TPSS- Substation 8	6/8/2015 8/10/2015 10/8/2015 1/7/2016 3/7/2016 1/7/2016	7/23/2015 9/24/2015 11/22/2015 2/21/2016	6/2/2016 8/4/2016 10/2/2016	8/1/2016
TPSS- Substation 3 TPSS- Substation 5 TPSS- Substation 6 TPSS-Substation 7 TPSS- Substation 8	6/8/2015 8/10/2015 10/8/2015 1/7/2016 3/7/2016 1/7/2016	7/23/2015 9/24/2015 11/22/2015 2/21/2016	6/2/2016 8/4/2016 10/2/2016	8/1/2016
TPSS- Substation 5 TPSS- Substation 6 TPSS-Substation 7 TPSS- Substation 8	8/10/2015 10/8/2015 1/7/2016 3/7/2016 1/7/2016	9/24/2015 11/22/2015 2/21/2016	8/4/2016 10/2/2016	
TPSS- Substation 6 TPSS-Substation 7 TPSS- Substation 8	10/8/2015 1/7/2016 3/7/2016 1/7/2016	11/22/2015 2/21/2016	10/2/2016	10/3/2016
TPSS-Substation 7 TPSS- Substation 8	1/7/2016 3/7/2016 1/7/2016	2/21/2016		12/1/2016
TPSS- Substation 8	3/7/2016 1/7/2016		1/1/2017	3/2/2017
	1/7/2016	4/21/2016	3/2/2017	5/1/2017
TDCC C L L L C		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
	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- Lucalyptus and Florence 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:

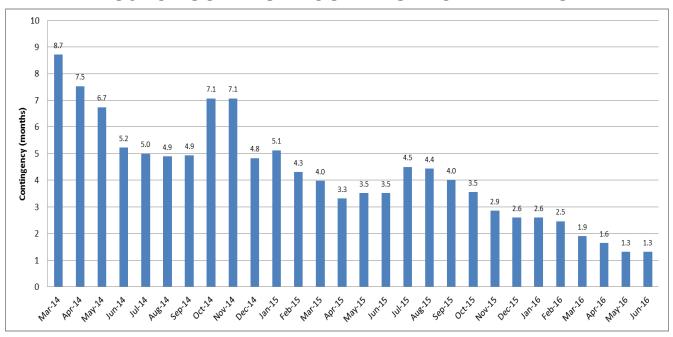
The longest path to project substantial completion begins with final design of the Design/Build Contract #C0988 Crenshaw/LAX Transit Corridor.

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 May 7, 2019, which is 206 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 re-forecast of their substantial completion milestone.

Metro this month reduced the forecast of the available project contingency by seven (7) calendar days. The seven (7) calendar days is the delay in the contractor's schedule for the longer period of time required for mining South bound tunnel from Expo/Crenshaw Station to MLK Station.

The total contingency remaining is 0.8 months.

PROJECT COST STATUS

SCC	DESCRIPTION	ORIGINAL	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		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		443,578,773	-	192,387,189		450,354,375	(2,145,626)
20	STATIONS	153,906,000	-	316,050,000		303,573,366	-	128,931,688		315,050,000	(1,000,000)
30	SUPPORT FACILITIES SOUTHWEST YARD	66,673,000	-	73,245,544	-	71,053,330		15,661,667		71,164,000	(2,081,544)
40	SITEWORK\SPECIAL CONDITIONS	235,576,000	-	348,565,999	849,000	373,207,317	272,893	256,143,054	750,000	382,868,552	34,302,553
50	SYSTEMS	125,132,000	-	169,311,000		152,363,920	-	6,385,667		169,436,000	125,000
	CONSTRUCTION SUBTOTAL (10-50)	1,052,622,000	-	1,359,672,544	849,000	1,343,776,707	272,893	599,509,264	750,000	1,388,872,927	29,200,383
60	RIGHT-OF-WAY	132,294,000	-	127,400,000	-	123,482,584	1,655	120,253,645	-	127,490,000	90,000.00
70	LRT VEHICLES	87,780,000	-	82,100,000		82,050,901	-	11,656,698	-	83,571,544	1,471,544
80	PROFESSIONAL SERVICES	273,147,000	٠	300,093,178	538,566	286,899,134	4,956,863	241,637,345	398,567	345,921,710	45,828,532
	SUBTOTAL (10-80)	1,545,843,000	٠	1,869,265,722	1,387,566	1,836,209,326	5,231,410	973,056,952	1,148,567	1,945,856,181	76,590,459
90	UNALLOCATED CONTINGENCY	177,157,000	,	162,734,278			-		(1,148,567)	86,143,819	(76,590,459)
	TOTAL PROJECT 865512 (10-100)	1,723,000,000	-	2,032,000,000	1,387,566	1,836,209,326	5,231,410	973,056,952		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	-	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	1,387,566	1,861,758,713	5,231,410	998,606,339	-	2,058,000,000	

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH 30-JUL-2016.

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 49% 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 July 30, 2016. The total commitments increased by \$1.4 million this period primarily due to the following:

- SCC-40 (Sitework and Special Conditions) has increased by \$0.9 million due to third party utility relocation scope of work with The Gas Company and Los Angeles Department of Water and Power and environmental consultant scope of work under contract PS3274 with Kleinfelder, Inc.
- SCC-80 (Professional Services) has increased of \$0.5 million due to project administration, legal services, design coordination and oversight by Caltrans District 07 and third party coordination by City of Inglewood. The total commitment of \$286.9 million includes \$20.1 million for the Southwestern Yard 49% allocation.

The \$1,861.8 million in commitments to date represents 90.5% of the current budget.

Expenditures:

The expenditures are cumulative through July 30, 2016. The total expenditures increased by \$5.2 million this period due to the following:

- SCC-40 (Sitework and Special Conditions) has increased by \$0.3 million for costs associated with third party utility relocation with Tesoro Logistics LP, environmental consulting work and Metro Art Program.
- SCC-80 (Professional Services) has increased by \$4.9 million for costs associated with Engineering and Design Contract E0117, Metro project administration, IPMO field office lease and utilities, construction management support services, legal services, third party coordination by Los Angeles City Departments, project management assistance support, labor compliance monitoring and environmental consultant services. The total expenditure of \$241.6 million includes \$10.5 million for the Southwestern Yard 49% allocation.

The \$999.6 million in expenditures to date represents 48.5% of the current budget.

PROJECT COST ANALYSIS (Continued)

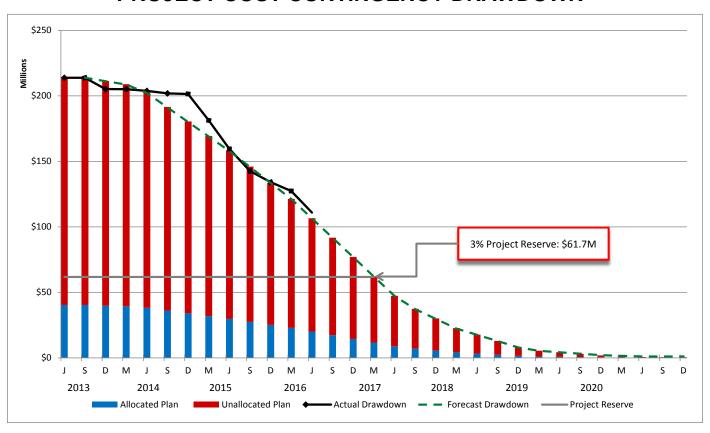
Contracts C0988 Crenshaw/LAX Transit Corridor and C0991 Division 16: Southwestern Yard (Design/Build) invoices for work completed through June 2016 have been accrued and reported as part of June 2016 expenditures.

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	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		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	3,504	139,236	-	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	217,638	2,311,024	181,848	2,182,405	-	3,001,555	-
	500013 C/LAX LAWA SCOPE OF WORK	1,575,362	-	1,575,362	-	531,125	-	408,712	-	1,575,362	-
Ì	TOTAL	4,390,998	-	7,198,899	217,638	5,464,131	185,352	2,903,100	-	7,198,899	-

PROJECT COST CONTINGENCY DRAWDOWN



Through 30-Jul-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

July 2016

PROJECT CONTINGENCY DRAWDOWN ANALYSIS (Continued)

There has been a cumulative drawdown of \$104,048,534 or 48.7% for both allocated and unallocated contingency through July 2016.

- The unallocated contingency decreased by \$1,148,567 due to executed modifications for project management support services contract PS2879 Hill International, third party utility relocation scope of work with The Gas Company and Los Angeles Department of Water and Power and annual work order authorization with Caltrans District 6 and City of Inglewood.
- There was no drawdown of allocated contingency this reporting period.

PROJECT COST CONTINGENCY (through 30-July-2016) UNITS IN DOLLARS										
	Original	_		_	Remaining					
	Contingency	Previous	Current	To-Date	Contingency					
	(Budget)	Period	Period		(Forecast)					
Unallocated Contingency	173,500,000	(86,207,614)	(1,148,567)	(87,356,181)	86,143,819					
Allocated Contingency	40,366,792	(16,692,353)	1	(16,692,353)	23,674,439					
Total Contingency	213,866,792	(102,899,967)	(1,148,567)	(104,048,534)	109,818,258					

Crenshaw/LAX Transit Project	July 2016
Monthly Project Status Report	

DISADVANTAGED BUSINESS ENTERPRISE (DBE) STATUS

Contract C0988 Crenshaw/LAX Transit Corridor Design-Build

(Reported Data as of June 15, 2016)

• DBE Goal – Design 20%

Current DBE Commitment \$20,324,963 (19.55%)

Current DBE Participation \$24,080,308 (25.56%)

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

• DBE Goal – Construction 20%

• DBE Commitment \$236,116,671 (20%)

Current DBE Commitment \$148,405,507 (10.10%)

Current DBE Participation \$105,654,870 (23.62%)

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 June, 2016)

Targeted Worker Goal –
 40.00%

Targeted Worker Current Participation - 58.74%

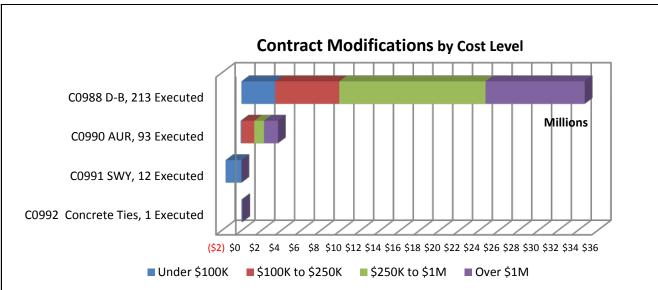
• Apprentice Worker Goal - 20.00%

Apprentice Worker Current Participation - 19.31%

Disadvantaged Worker Goal - 10.00%

Disadvantaged Worker Current Participation 12.49%

SUMMARY OF CONTRACT MODIFICATIONS



	C0988		C0990			C0991	C0992	
	213 Executed		93 Executed		1:	2 Executed	1 Executed	
Under \$100K	\$	3,394,305	\$	(70,251)	\$	(1,598,175)	\$	81,738
\$100k to \$250K	\$	6,489,739	\$	1,280,184	\$	-	\$	-
\$250K to \$1M	\$	14,783,217	\$	984,662	\$	-	\$	-
Over \$1M	\$	10,039,556	\$,417,202	\$	-	\$	
Total Contract MODs	\$	34,706,817	\$	3,611,797	\$	(1,598,175)	\$	81,738
% of Contract MODs		2.73%		46.14%		-0.93%		3.78%

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

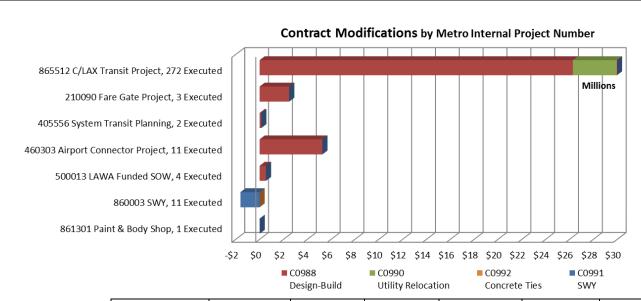
Two hundred and thirteen (213) changes with a total value of \$34.71 million have been executed since award of Contract C0988. There are an additional forty-one (41) changes with a total value of \$0.95 million pending the administrative approval process.

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

Twelve (12) changes with a total value of (\$1.66) million have been executed since award of Contract C0991. There are an additional four (4) changes with a total value of \$0.31 million credit pending the administrative approval process.

One change with a value of \$81,738 was executed for completed Contract C0992.

SUMMARY OF CONTRACT MODIFICATIONS



	865512	210090	405556	460303	500013	860003	861301	
	Executed	Executed	Executed	Executed	Executed	Executed	Executed	
C0988 - QTY	193	3	2	11	4	0	0	
C0998 - \$	\$ 26,289,776	\$ 2,482,746	\$ 139,236	\$ 5,263,844	\$ 531,216	\$ -	\$ -	
C0990 - QTY	78	0	0	0	0	0	0	
C0990 - \$	\$ 3,611,797	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
C0991 - QTY	0	0	0	0	0	11	1	
C0991 - \$	\$ -	\$ -	\$ -	\$ -	\$ -	\$(1,606,175)	\$ 8,000	
C0992 - QTY	1	0	0	0	0	0	0	
C0992 - \$	\$ 81,738	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Total - QTY	272	3	2	11	4	11	1	
Total - \$	\$ 29,983,310	\$ 2,482,746	\$ 139,236	\$ 5,263,844	\$ 531,216	\$(1,606,175)	\$ 8,000	

Two hundred and seventy two (272) changes with a total value of \$29.98 million have been executed for Project 865512 Crenshaw/LAX Transit Project. There are an additional forty-one (41) changes with a total value of \$0.96 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.

Eleven (11) changes with a value of \$5.26 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.

Eleven (11) changes with a value of \$1.61 million credit have been executed for Project 860003 Southwestern Yard. There are an additional three (3) changes with a total value of \$0.31 million pending approval.

One (1) change with a value of \$8,000 has been executed for Project 861301 Southwestern Yard Paint and Body Shop.

FINANCIAL/GRANT STATUS

SOURCE	(A) ORIGINAL	(B) TOTAL	(C) TOTAL	(D) COMMITM	(D/B) MENTS	(E) (E/B) EXPENDITURES		(F) (F/B) BILLED to 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%	47.5	39%	47.5	39%
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%	191.3	29%	167.7	25%
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	177.9	94%	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	1,861.8	90.5%	998.6	48.5%	975.0	47.4%

NOTE: Expenditures are cumulative through July 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 during the second quarter of FY17.

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.

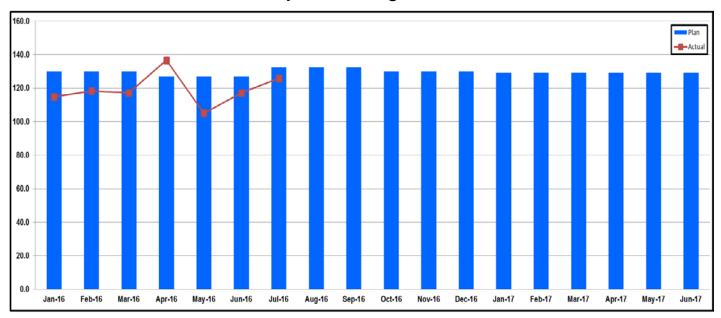
OTHER FUNDS: City of LA: Based on the funding agreement between Metro and the City of LA. \$13M is available for drawdown through FY2016.

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 July 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.

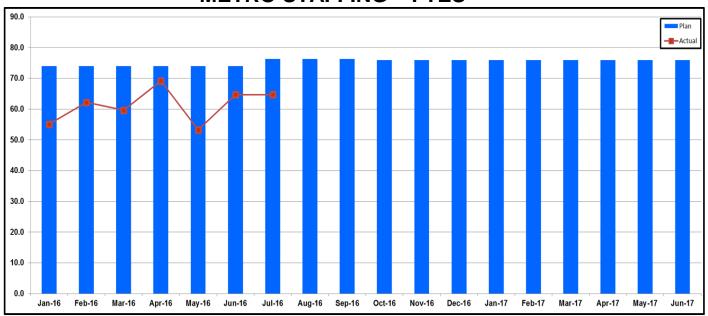
The planned staffing includes 11 new positions that were authorized by the Board in July 2015. Actual staffing will continue to be less than plan until new positions are filled throughout fiscal year 2016 and planned construction work increases with corresponding increases is staffing requirements.

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

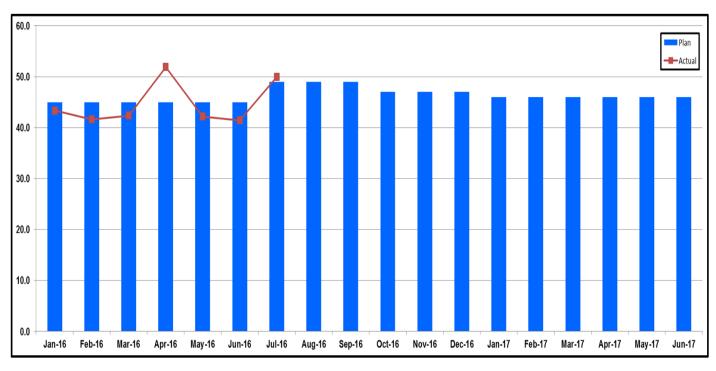
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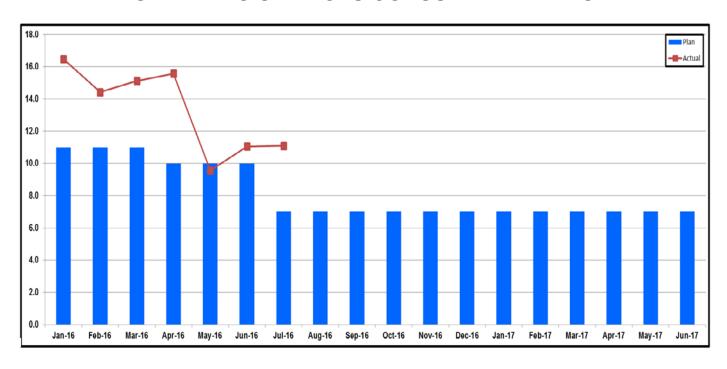
STAFFING STATUS (Continued) METRO STAFFING – FTES



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 Corrido	or (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	9	1	10	10	1	8		9
Subtotal Parcels	32	30	2	31	31	11	19	12	30
Crenshaw Subdivision Addit	ional Parcels:					•			
Full Takes									
Part Takes	1	1		1	1				
TCE									
Subtotal Parcels:	1	1		1	1				
Total Crenshaw Parcels	33	31	2	32	32	11	19	12	30
Harbor Subdivision									
Full Takes	15	15		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	33	3	35	34	14	19	12	31
Harbor Subdivision Addition	al Parcels:		•	,		•			•
Full Takes	3	2	1	1					
Part Takes	4	2	2	2	2	2			1
TCE	3	3		3	3	2			2
Subtotal Parcels:	10	7	3	6	5	4			3
Total Harbor Subdivision Parcels	46	40	6	41	39	18	19	12	34
Total CR/HS Parcels:	79	71	8	73	71	29	38	24	64
Southwestern Yard							•		
Full Takes	8	8		8	8	4	4	7	8
Part Takes									
TCE									
Subtotal Parcels:	8	8		8	8	4	4	7	8
Total SW Parcels:	8	8		8	8	4	4	7	8
Total Project Parcels	87	79	8	81	79	33	42	31	72

- 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. Three of these acquisitions are complete.

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 nine (9) Nonconformance Reports (NCR's) and closed one NCR during the month including unsound concrete in Bridge Deck, soffit for the 111th Bridge, exceeding 30 min to place fresh concrete, bent rebar dowels at West Station, vertical rebar of Bent-2 with PT Duct at Manchester Bridge (AG-4), low 28 day compressive strength for 111th Bridge (AG2) Deck, out of plum vertical expansion joint at UG1, incorrect vertical profile for 24" storm drain and incorrect mud slab elevation at bumpout at Expo Station.
- WSCC Quality Control issued ten (10) Potential Nonconformance Reports (PNCR's).
- WSCC Quality implemented their Intern Summer Spec Series where interns research and present a topic on issues related to the project.
- HNTB Design Quality Control reviewed twenty-one (21) NDC's, one RFI and five (5) AFC packages.
- Metro Independent Testing Lab conducted split sample for verification testing of MSE Wall 202 soil and provided soil test analysis of material MSE Wall 17.
- Metro Quality participated in Readiness Review Meetings for the installation of sub/bottom ballast, storm drain installation in the MTA right-of-way and for the Century Blvd. falsework removal with LA DOT and LAWA personnel.

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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
 - o Green Construction Plan Monthly Report
 - o Sustainability Plan Monthly Reports
 - Weekly Storm Water Pollution Prevent Plan (SWPPP) inspection reports
 - Weekly Fugitive Dust Inspection Reports
 - Various Construction Work Plans
- Submitted Quarterly Mitigation and Monitoring Status Report to FTA ON July 25, 2016.
- Monitoring groundwater dewatering activities at the Expo and MLK Station excavations.
- 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.
- Conducted Contractor Cultural Awareness Training.
- Coordinated cultural monitoring (Archaeological, Paleontological and Native American Monitoring).
- Conducted site characterization activities for potential contamination at Victoria Yard.

CONSTRUCTION RELATIONS STATUS

- Metro and WSCC continue to work on the implementation of the Temporary Construction Parking Plan.
- Continue to report TBM progress through Metro social media channels.
- Continue to work with businesses and residents interested in the Park Mesa At-Grade segment including the Baldwin Hills Estates HOA and Dulan's Restaurant.
- Continue to work with Metro Bus Operations to ensure that bus stops between 60th and 67th Street are operational during construction.
- Metro CEO Phil Washington performed a community walk in the Park Mesa Heights area to meet with key stakeholders and business owners impacted by construction.
- Held a Construction Update Community Meeting in downtown Inglewood.
- Media Relations is working on a media event for the completion of the first bored tunnel at Leimert Park Station anticipated for September 2016.
- Metro Construction Relations and WSCC held the first monthly Construction Update Meeting focused on the Park Mesa Heights area.
- Coordinated the creation of a Hyde Park Station Art Community Advisory Committee. A kickoff workshop was held in July 2016 at Crenshaw Yoga and Dance.
- Distributed construction notices in the UG3 Park Mesa Cut and Cover area for k-rail reconfiguration.
- Metro Construction Relations and LAWA conducted an outreach campaign to key stakeholders in the City of Inglewood, LAX and Westchester area for the closure of Century Blvd. between Aviation and Bellanca including notices, detour maps, media release and a press conference.

SYSTEMWIDE DESIGN AND ART PROGRAM STATUS

- Responded to RFIs and submittal drawings.
- 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.
- Conducted outreach activities to present station artwork to the community.
- Facilitated Community Stakeholder Meeting with Hyde Park Station artist.

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 during safety monitoring.
- Participated in WSCC's weekly Safety Tool-Box Meetings, Executive and Sub-Contractor Safety Committee Meetings and monthly Supervisors Safety Meeting.
- Conducted monthly All Hands Safety and Security Meeting.
- Participated in WSCC's Readiness Review for the CWP at 104th Street.
- Walsh/Shea reported 112,494 work hours and one recordable incident for the month of July 2016. Total Project-to-Date work hours are 2,717,704 and twenty-nine recordable incidents. The Project Incident Rate is 2.0. The Bureau of Labor Statistics (BLS) average recordable rate per 200,000 work-hours is 3.0.

THIRD PARTY AGREEMENT STATUS

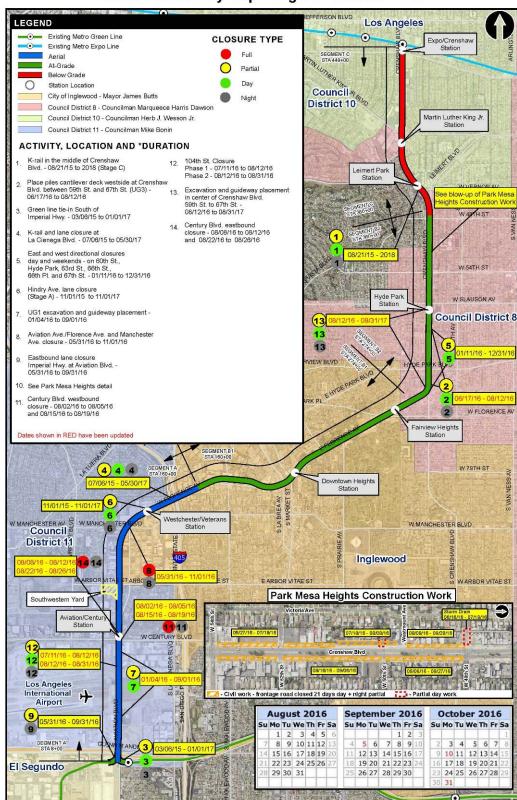
Third Party	Type of Agreement	Forecast Execution Date	Required Need Date	Status/ Comments
City of Los Angeles	Amendment to Master Cooperative Agreement	N/A	N/A	Parties will work under 2003 MCA.
City of Inglewood	Master Cooperative Agreement	8/16	N/A	Executed Letter of Agreement April 2012. Metro working 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.

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.
- Metro attended the Prehearing regarding the petition on May 24, 2016. The next step
 is for the Administrative Law Judge to issue the Scoping Memo and Ruling, which will
 set forth the procedural schedule and address the scope of the proceeding.
- Metro is awaiting the Administrative Law Judge Scoping document.
- Briefs due to CPUC on August 5, 2016. Reply briefs due no later than August 15, 2016.

Crenshaw/LAX Transit Corridor Project Traffic Closure Key Map - August - October 2016





Updated: 08/04/2016

*Note: Traffic closure dates and durations are subjected to change

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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.

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CHRONOLOGY OF EVENTS (Continued)

July 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
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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.
May 7, 2016	Held Halfway There Community Celebration at Leimert Park marking the halfway point of the project.
May 27, 2016	Held Groundbreaking Ceremony for the Southwestern Yard (Division 16).

CONTRACT C0988 STATUS

Crenshaw/LAX Transit Corridor

Contract No.: C0988 PE Design Contractor: Hatch Mott (HM) CM Consultant: Stantec Contractor: - Walsh Shea Corridor Constructors (WSCC) Status as of July 30, 2016 **Progress/Work Completed:** Areas of Concern: Design-builder's ability to mitigate schedule delays. Construction Timely submittal of WSCC's design submittals and review by City of - Continued tunnel segment production. Los Angeles - Continued TBM Mining - 96th street station accomodations cost/schedule impacts. - Continued waterproofing installation for the lower walls at the Expo Station. - Continued construction of the lower walls at Expo station. - Continued waterproofing installation for the lower walls at the MLK Station - Completed construction of the mud slab at Vernon Station. - Completed installation of the elevator casing at Vernon Station - Commenced installation of Tier 2 bracing at UG #4 - Continued demolition and replacement of curb, gutter, sidewalks and driveways at Park Mesa Heights Continued setting the precast panels for the cantilevers at UG #3 Completed footings at La Brea Station Completed construction of Century bridge superstructure - Completed construction of the 111th St Bridge - Continued construction of Green Line superstructure Contractor's July 2016 schedule update indicates Milestone 1 - Contract Substantial Completion is 206 calendar days behind the current contract date. - Contractor did submit their June schedule update late in July as well as their July schedule update in August. - Contractor also submitted a new updated and revised schedule to be reviewed by Metro. Schedule Assessment: Cost Assessment: The current construction contract cost forecast is \$1,301.48 million and is within the Board authorized budget. The Contractor submitted their 35th payment application in the approved amount of \$19,876,620.98 -WSCC decided not to submit a re-baseline schedule as requested by Metro, because per contract it does not allow them. *Please note that not all executed modifications may have been included in the Contractor current payment application. Schedule Summary: Cost Summary: \$ In millions 1. Date of Award: 08/01/13 1. Award Value: 1,272.63 2. Notice to Proceed: 09/10/13 2. Executed Modifications: 30.85 3. Original Substantial Completion Duration: 3. Approved Change Orders: 1824 3.85 4. Current Substantial Completion Duration: 4. Current Contract Value (1 + 2 + 3): 1,307.33 1859 5. Elapsed Time from NTP: 1054 56.7% 5. Incurred Cost: 637.32 PERCENT COMPLETE from 9/10/13 to 7/30/16

Milestones	Original Contract	Current Contract	Forecast	Calendar Day Variance
Milestone 1 - Contract Substantial Completion	09/08/18	10/13/18	05/07/19	-206
Milestone 2 - UFS Completion	03/09/18	04/13/18	10/24/18	-194
Milestone 3 - Commence SIT Phase I	06/09/18	07/14/18	02/07/19	-208
Milestone 4 - Const./Turnover Parcels SW-0101, 0102, 0103	12/04/15	03/04/16	5/1/2016A	-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

CONTRACT C0990 STATUS

Crenshaw/LAX Advanced Utility Relocations

PE Design Contractor: Hat CM Consultant: Stantec				Contract No.: C0990	- Carol		
Contractor: - Metro Builders and Engineers Group LTD				Status as of July 30, 2016			
Progress/Work Completed - The construction was substar - Board authorized in March a s - Contract in close out.	ntially completed on A	ugust 21, 20 [.] ontractor.	14	Areas of Concern:			
Schedule Assessment: - Metro granted substantial cor	mpletion to Metro Buil	ders on Augu	ust 21,	Cost Assessment: - The final contract is \$11,316,140.00 and h	as been completely paid		
2014, which is 276 calender da - The settlement with the contra	ays behind.			to contractor. * A modification in process for credit of unused provisional sums in the amount of \$123,156.85.			
Schedule Summary:				Cost Summary:	\$ In millions		
1. Date of Award:	05/30/12	!		1. Award Value:	7.83		
2. Notice to Proceed:	07/17/12	!		2. Executed Modifications:*	3.49		
3. Original Substantial Comple	etion Duratic 365			3. Approved Change Orders:	-		
4. Current Substantial Comple	etion Duratic 468			4. Current Contract Value (1 + 2 + 3):	11.32		
5. Elapsed Time from NTP:	753			5. Incurred Cost:	11.32		
Milestones	Original Current Contract Contract	Forecast	Calendar Day Variance	PERCENT COME from 7/17/12 to 8/2			
Milestone 1 - Contract Substantial Completion	07/17/13 11/18/13	08/21/14A	-276	Design 0%			
				Design			
				Construction	100%		
				Total Incurred Cost	100%		
		1		0% 20% 40% 60% Percent Complete			
		1		Construction physical percent com	plete excludes		
				mobilization and general requirements			

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 July 30, 2016

4

\$ In millions 172.31 (1.63) 0.04 170.72 20.73

Progress/Work Completed:

- Design submittal 100% of APDU-1 was $\,$ AAN and re-submitted on July 8, 2016.
- Design Submittal 100% of APDU-2A was submitted in June and AAN and resubmitted on July 26, 2016.
- Design submittal 85% of ADPU-2B was Rejected in June and iwas resubmitted on July 11, 2016 and was AAN.
- Design submittal 85% of ADPU-2C for future Main Shop Expansion 85% has been submitted.
- Phase I, right of way was turned over to HPH on May 2, 2016.
- Bellanca Revocable Permit was issued in June.
- Temporary Access Road (TAR) was approved for construction.
- DWP installed new poles east of Temporary Access Road.

Areas of Concern:

- DWP and ATT utility line relocation design is continuing and anticipated to be complete as early as begining of August 2016.
- Design approval process is taking much longer than anticipated. Metro 3rd party is working on an interim plan to remove the interfearing power pole. ATT is in the process of selecting a contractor to perform the underground portion of work and relocate the line to Airpot-IPMO.

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.
- Risk Register for SWY was expanded as part of the overal Crenshaw project risk process.
- Schedule updates for March, April , May and June were AAN and July schedule update is being pre pared for submittal by HPH. (No delay to the milestones are expected, but design contingency has been obsorbed).

Cost Assessment:

Cost Summary:

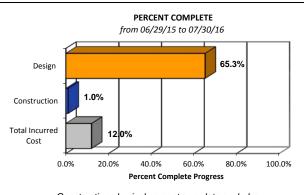
- Contract to Hensel Phelps / Herzog JV was awarded for \$172.3 million.
- Contractor has caught up with submitting both monthly schedule and cost update submittals.
- July 2016 pay applications have been approved by Metro.
- Trends are being prepared for adjustments within the LOP Budget.
- Separate 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-15		1. Award Value:	
2. Notice to Proceed:	29-Jun-15		2. Executed Modifications:	
3. Original Substantial Completion Duration:	1,220		3. Approved Change Orders:	
4. Current Substantial Completion Duration:	1,311		4. Current Contract Value (1 + 2 + 3):	
5. Flansed Time from NTP:	397	30.28%	5. Incurred Cost (thru Jul 2016):	

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	5-Apr-18	11
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	28-Jan-19	2



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

CONTRACT C0992 STATUS

Concrete Ties

CM Consultant: Stantec Contractor: Rocla Concrete T	Mott (HM)		Contract No.: C0992 Status as of July 30, 2016						
Progress/Work Completed: - All 19,936 concrete ties have bee (Contract C0988) Contract is closed out.		site by the	design-build	der	Areas of Concern:				
Schedule Assessment: All concrete ties were delivered to	job site by Au	gust 15, 20	114.		Cost Assessment: The final contract cost is \$2.25 mi	::::::::::::::::::::::::::::::::::::::			
					to contractor.				
						¢ lo milli			
Schedule Summary:			12/10/13		Cost Summary:	\$ In milli			
1. Date of Award:			12/10/13 12/23/13		Cost Summary: 1. Award Value:	\$ In milli	2.16		
 Date of Award: Notice to Proceed: 			12/23/13		Cost Summary: 1. Award Value: 2. Executed Modifications:	\$ In milli			
 Date of Award: Notice to Proceed: Original Substantial Completion 			12/23/13 220		Cost Summary: 1. Award Value: 2. Executed Modifications: 3. Approved Change Orders:		2.16 0.09		
 Date of Award: Notice to Proceed: Original Substantial Completion Current Substantial Completion 			12/23/13		Cost Summary: 1. Award Value: 2. Executed Modifications: 3. Approved Change Orders: 4. Current Contract Value (1 + 2)		2.16 0.09 2.25		
 Date of Award: Notice to Proceed: Original Substantial Completion 			12/23/13 220 235		Cost Summary: 1. Award Value: 2. Executed Modifications: 3. Approved Change Orders:		2.16 0.09		
 Date of Award: Notice to Proceed: Original Substantial Completion Current Substantial Completion Elapsed Time from NTP: 	n Duration: Original	Current	12/23/13 220 235 235	Calendar Day	Cost Summary: 1. Award Value: 2. Executed Modifications: 3. Approved Change Orders: 4. Current Contract Value (1 + 2) 5. Incurred Cost: PERCE		2.16 0.09 2.25 2.25		
 Date of Award: Notice to Proceed: Original Substantial Completion Current Substantial Completion 	Original Contract	Contract	12/23/13 220 235 235	Calendar Day Variance	Cost Summary: 1. Award Value: 2. Executed Modifications: 3. Approved Change Orders: 4. Current Contract Value (1 + 2) 5. Incurred Cost: PERCE	+ 3): -	2.16 0.09 2.25 2.25		
 Date of Award: Notice to Proceed: Original Substantial Completion Current Substantial Completion Elapsed Time from NTP: Milestones	n Duration: Original		12/23/13 220 235 235	Calendar Day Variance	Cost Summary: 1. Award Value: 2. Executed Modifications: 3. Approved Change Orders: 4. Current Contract Value (1 + 2) 5. Incurred Cost: PERCE	+ 3): -	2.16 0.09 2.25 2.25		
Date of Award: Notice to Proceed: Original Substantial Completion Current Substantial Completion Elapsed Time from NTP: Milestones Milestones	Original Contract	Contract	12/23/13 220 235 235	Calendar Day Variance	Cost Summary: 1. Award Value: 2. Executed Modifications: 3. Approved Change Orders: 4. Current Contract Value (1 + 2) 5. Incurred Cost: PERCE from 12/	+ 3): -	2.16 0.09 2.25 2.25		
Date of Award: Notice to Proceed: Original Substantial Completion Current Substantial Completion Elapsed Time from NTP: Milestones Milestones	Original Contract	Contract	12/23/13 220 235 235	Calendar Day Variance	Cost Summary: 1. Award Value: 2. Executed Modifications: 3. Approved Change Orders: 4. Current Contract Value (1 + 2) 5. Incurred Cost: PERCE from 12/	+ 3): -	2.16 0.09 2.25 2.25		
Date of Award: Notice to Proceed: Original Substantial Completion Current Substantial Completion Elapsed Time from NTP: Milestones Milestones	Original Contract	Contract	12/23/13 220 235 235	Calendar Day Variance 0	Cost Summary: 1. Award Value: 2. Executed Modifications: 3. Approved Change Orders: 4. Current Contract Value (1 + 2) 5. Incurred Cost: PERCE from 12.	+ 3): -	2.16 0.09 2.25 2.25		
Date of Award: Notice to Proceed: Original Substantial Completion Current Substantial Completion Elapsed Time from NTP: Milestones Milestones	Original Contract	Contract	12/23/13 220 235 235	Calendar Day Variance 0 0	Cost Summary: 1. Award Value: 2. Executed Modifications: 3. Approved Change Orders: 4. Current Contract Value (1 + 2) 5. Incurred Cost: PERCE from 12: Delivered Shipped Total Incurred Cost	+ 3): - ENT COMPLETE 2/3/2013 to 8/15/14	2.16 0.09 2.25 2.25		
Date of Award: Notice to Proceed: Original Substantial Completion Current Substantial Completion Elapsed Time from NTP: Milestones Milestones	Original Contract	Contract	12/23/13 220 235 235	Calendar Day Variance 0 0 0	Cost Summary: 1. Award Value: 2. Executed Modifications: 3. Approved Change Orders: 4. Current Contract Value (1 + 2) 5. Incurred Cost: PERCE from 12: Delivered Shipped Total Incurred Cost 0% 20% 400	+ 3): - ENT COMPLETE 2/3/2013 to 8/15/14	2.16 0.09 2.25 2.25 100%		

CONTRACT C0992A STATUS

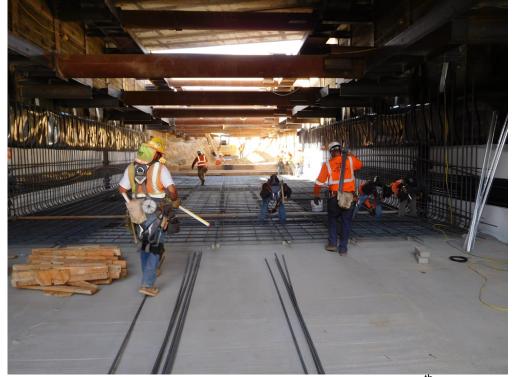
Running Rail and Bumping Posts

PE Design Contractor: Hatch Mott (CM Consultant: Stantec Contractor: LB Foster Rail Technology		orp			Contract No.: C0992A Status as of July 30, 2016
Progress/Work Completed: - All 115RE SS Blank Stick Rails have be - All 115RE HH rail have been delivered: - All Bumping Posts have been delivered: - Contract is closed out.	to job si	ite.			Areas of Concern:
Schedule Assessment: All running rails and bumping posts were	delivere	ed ahead o	f 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:
Original Substantial Completion Duration	ion:		300		Approved Change Orders:
Current Substantial Completion Durati			558		4. Current Contract Value (1 + 2 + 3): - 5.2
5. Elapsed Time from NTP:			448		5. Incurred Cost: 5.2
	riginal entract	Current Contract	Forecast	Calendar Day Variance	PERCENT COMPLETE from 3/7/2014 to 05/29/15
Milestone 1 - Contract Substantial	/31/14	09/30/15	05/08/15A	145	
Completion				0	Construction 100%
				0	
				0	Total Incurred Cost
					0% 20% 40% 60% 80% 100%
				0	Percent Complete Progress Construction physical percent complete excludes mobilization and general requirements

CONSTRUCTION PHOTOGRAPHS



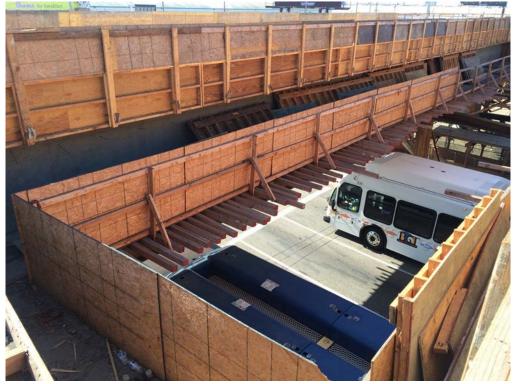
MSE Wall 17L&R (North of Imperial Highway): Crews worked on galvanized strap placement, embankment backfill and compaction.



UG#1- Finished installing bracing and lagging beneath 104th Street temporary deck bridge.



AVIATION/CENTURY BRIDGE - Frame 1A deck concrete placement.



AVIATION/CENTURY BRIDGE – Exterior girder formwork removed in Frame 1A.



DOWNTOWN INGLEWOOD STATION - Crews worked on installing formwork and rebar for the station's footing and grade beams.



FAIRVIEW HEIGHTS STATION - Crews continued installing rebar and formwork for Southern retaining wall for the subterranean TC&C room.



UG#3 – Installation of west side deck panels.



PARK MESA HEIGHTS - Demolition activities at sidewalk at 52nd Street.



LEIMERT PARK STATION - Placement of protection slab at east side of station box.



MARTIN LUTHER KING JR. STATION - Backfill and compaction of west bump out wall.



EXPOSITION/CRENSHAW STATION - Installation of rebar for east lower wall D-29 thru D-31.



TUNNELING – Setting ring #519.

APPENDIX PROJECT COST STATUS – SOUTHWESTERN YARD

UNIIS	IN DOLLARS										
SCC	SCC DESCRIPTION		CURREN	TBUDGET	COMMITMENTS		EXPENDITURES		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	38,658,086	0	15,687,627	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	158,181,781	0	15,687,627	0	158,153,531	1,699,532
60	RIGHT-OF-WAY	99,910,000	0	100,000,000	0	106,286,238	0	105,580,096	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	660,081	28,333,909	536,568	16,695,025	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	660,081	292,801,927	536,568	137,962,747	0	307,200,000	(0)

C0991 PAINT & BODY SHOP PROJECT										
DESCRIPTION	ORIGINAL	CURREN	T BUDGET	COMMIT	MENTS	EXPEND	DITURES	CURRENT	FORECAST	FORECAST
DESCRI 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	116	6,916,364	116	194,081	0	11,000,000	0

PROJECT GRAND TOTAL 307,434,278 0 318,200,000 660,197 299,718,291 536,684 138,156,828 0 318,200,000											
	PROJECT GRAND TOTAL	307,434,278	0	318,200,000	660,197	299,718,291	536,684	138,156,828	0	318,200,000	(

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 July 30, 2016.

Total commitments increased by \$0.66 million for this period due to the following:

- SCC-40
 - o No Change.
- SCC-60
 - o Right-of-Way (ROW) no change.
- SCC-80
 - Other professional services such as legal, construction management and labor increased by \$0.66

The \$299.72 million in commitments to date represents 94.19% of the current budget.

Expenditures:

The expenditures are cumulative through July 30, 2016.

The total expenditures increased by \$0.54 million for this period due to the following:

- SCC-40
 - No Cost to Report.
- SCC-60
 - No Cost to Report.
- SCC-80
 - Agency expenditure increase by \$0.21 million for June/July.
 - o Professional services expenditure increase by \$0.33 million for June/July.

The \$138.2 million in expenditures to date represents 43.42% 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.

CURRENT BUDGET The Original Budget plus all budget amendments approved by

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,

SERVICES construction management support services, legal counsel,

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.