

# Crenshaw/LAX Transit Project



Metro®

# **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).

**JULY 2017**


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**PROJECT SUMMARY**

<b>LOCATION:</b> Crenshaw Blvd at Exposition to Green Line <b>DESIGN/CONSULTANT:</b> Mott MacDonald				<b>CONSTRUCTION MANAGEMENT CONSULTANT:</b> Stantec <b>CONTRACTORS:</b> Walsh-Shea Corridor Constructors (Alignment) and Hensel Phelps / Herzog (Southwestern Yard)							
<b>PHOTO:</b> Bottom-up plinth construction nearing completion at UG1 structure.				<b>WORK COMPLETED PAST MONTH:</b>							
				<ul style="list-style-type: none"> <li>o Continued tunnel walkway concrete placements.</li> <li>o Completed tunnel cross passage excavation work and commenced concrete placements.</li> <li>o Continued wall and concourse concrete placements at Expo, MLK Jr and Leimert Park stations.</li> <li>o Continued wall concrete placement at underground structures # 3 and 4.</li> <li>o Continued civil construction work within Park Mesa Heights area.</li> <li>o Continued accommodations for future 96th Street Station.</li> <li>o Continued finishing work for Greenline tie-in structure.</li> <li>o Continued SWY main shop building structural steel installation and slab on grade concrete placements.</li> <li>o Continued SWY material storage building slab on grade concrete placements.</li> </ul>							
<b>EXPENDITURE STATUS</b> (\$ In Millions)				<b>SCHEDULE ASSESSMENT</b>							
ACTIVITIES	CURRENT BUDGET	EXPENDED AMOUNT	PERCENT EXPENDED	MAJOR SCHEDULE ACTIVITIES	PRIOR PLAN	CURRENT PLAN	VARIANCE WEEKS				
<b>DESIGN</b>	\$ 136.7	\$ 126.9	92.9%	<b>Environmental</b>							
<b>RIGHT-OF-WAY</b>	\$ 127.4	\$ 127.4	100.0%	FEIS/FEIR	Sep-11	Sep-11	Complete				
<b>CONSTRUCTION</b>	\$ 1,353.1	\$ 893.2	66.0%	Record of Decision	Dec-11	Dec-11	Complete				
<b>OTHER</b>	\$ 440.8	\$ 226.0	51.3%	<b>Design</b>							
<b>TOTAL:</b>	<b>\$ 2,058.0</b>	<b>\$ 1,373.6</b>	<b>66.7%</b>	Preliminary Engineering	Nov-11	Nov-11	Complete				
Note: Cost expended as of July 28, 2017.				Final Design	Sep-15	Sep-17	24.5 months behind				
				<b>Right-of-Way</b>							
<b>AREAS OF CONCERN</b>  o Timely submission of remaining WSCC's design submittals and review by City of Los Angeles. o WSCC's ability to mitigate potential schedule delays to their substantial completion milestone of May 1, 2019.				Full-take parcels available	Jan-15	Jan-15	Complete (base scope)				
				Part-take and TCE parcels	Sep-15	Apr-16	Complete (base scope)				
<b>ROW ACQUISITION</b>				<b>Construction</b>							
				PLAN	ACQUIRED	REMAINING	D-B Notice to Proceed	Sep-13	Sep-13	Complete	
				FULL TAKES	37	36	1	D-B Substantial Complete	May-19	May-19	11 days behind
				PARTIAL TAKES	27	26	1	Revenue Service Date	Oct-19	Oct-19	One week behind
TEMPORARY EASEMENTS	15	14	1	<b>Notes on Schedule:</b> o Agreement approved in Jan 2017 by Metro Board for cost/schedule impacts revised the D-B Contractor's Substantial Completion Milestone to May 1, 2019. o Revenue Service Date includes no schedule contingency.							
<b>TOTAL PARCELS:</b>	<b>79</b>	<b>76</b>	<b>3</b>	<b>CRITICAL ACTIVITIES / 3 MONTH LOOK AHEAD</b>							
o Continue the three underground stations walls and concourse concrete placements. o Continue Park Mesa Heights area civil construction work. o Continue trackwork in available alignment areas.											

## **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. The contract is 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 is 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 is 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.

*Construction efforts by the design-builder continued along all areas of the alignment. The contractor continues to work on all five cross passages between the twin tunnels including waterproofing and the start of concrete placements. Work on the twin tunnels includes walkway concrete placements.*

*The three underground stations remain at various levels of completion. Work continues on remaining platform concrete, platform level walls, concourse floor and concourse walls. Two of the four at-grade stations structure concrete placements are substantially completed with entrance and finish work to commence in the near future. The aerial station structure concrete placement is substantially complete.*

The underground shallow tunnel structure in front of the south runways of LAX along Aviation Boulevard is substantially completed. The shallow tunnel box structure south of Leimert Station and the shallow tunnel box structure south of Park Mesa Heights are both in various stages of construction.

*All six bridge superstructures are substantially complete with the exception of the finishes and systems installations. Various construction efforts continue on the roadway section near or within the Park Mesa Heights area.*

Trackwork installation is continuing in areas available along the southern area of alignment. The contractor has completed construction of five of 17 at-grade crossings.

**Design- Build Contract C0991 Southwestern Yard (Division 16)** – The design-builder, Hensel Phelps / Herzog JV (HPH) substantially completed final design and submission of submittals required for construction on October 26, 2016. Design for the future expansion of the main shop was issued as a preliminary engineering package for Metro's use in the future.

## **PROJECT OVERVIEW (Continued)**

*The contractor continues critical path work such as structural steel installation and placement of main shop building slab on grade and backfilling of completed work. Work also continues on the material storage building placing the slab on grade, CMU walls and door framing. Work continued on electrical and communication duct banks. A key milestone was achieved to complete structural steel installation for the main shop. Work has started on the main shop CMU walls, decking and imbedded electrical, mechanical and plumbing activities.*

*HPH received the planned Phase II turnover of the south and north yard areas from the main line contractor (WSCC) which allowed HPH to commence demolition, excavation and site preparation. Phase II site grading, demolition and clearing is substantially complete and the construction trailers have been relocated. HPH is ahead of schedule by approximately two months.*

### **Right-of-Way**

Metro added in January 2016, two full takes and five part-takes/TCE's required for the construction of the Project. There are now a total of 79 parcels (eight have been decertified). There are 37 full takes, 27 partial takes and 15 temporary construction easements (TCE's). *There have been 76 parcels acquired through July 2017.* Thirty-six full takes, 26 part-takes and 14 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 course of action is to expand the existing functional operations at the ROC to support the new five new rail lines and extensions including Foothill Ext., Expo II, Crenshaw/LAX, Regional Connector and Purple Extension Projects. The existing ROC service control and closed circuit television monitoring areas are being expanded and reconfigured for each new rail line extension. The supporting facilities and electrical\communication systems are also expanded and upgraded accordingly to suit the needs of the growing Metro operations. The ROC Reconfiguration Plan will be updated to suit the central control needs of each upcoming new rail line extension. Metro will prepare a design update for the Crenshaw/LAX Project. All work for the ROC is planned to be completed concurrently with the C0988 design-builder scope work to ensure continuity of the systems effort.

### **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.

## **PROJECT OVERVIEW (Continued)**

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.

Although there is no change to the Total LOP Current Budget there was a reallocation for changes to the SCC elements within the Current Budget in April 2017. The reallocation was required due to the draw down to date of the SCC 90 Allocated Contingency for changes issued to the design-build contractor, additional relocations of utilities by third parties, additional legal services and special services as well as an increase in professional services for construction and project management oversight.

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 and state funding 91.3%, (includes Measure R TIFIA Loan), and federal funding is 8.7%.

*The project commitments thru July 2017 are \$1,943 million or 94.4% of the Current Budget.  
The project expenditures thru July 2017 are \$1,374 million or 66.7% of the Current Budget.*

The current period expenditures are for Contract C0988 design-builders monthly 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 Metro internal project number. The total costs for the Southwestern Yard project is included in the Appendix.



## **PROJECT OVERVIEW (Continued)**

In December 2016, the C0988 design-builder submitted a “Completion Schedule” which was subsequently reviewed and approved by Metro on December 16, 2016. This schedule represents a re-baseline of WSCC’s Contract Schedule which reflects their means and methods for completing construction and testing during the remaining years with a commitment to complete on time to support Metro’s planned revenue operations in the fall of 2019. The approved Completion Schedule resets WSCC’s Contract Milestone #1 Substantial Completion to May 1, 2019.

*WSCC in their July 2017 Schedule Update forecasts an 11 calendar day delay to WSCC’s Contract Milestone #1 Substantial Completion date of May 1, 2019. This is an additional three calendar day delay from last month’s forecast. WSCC continues to explore mitigation opportunities along the alignment where the current impact of 11 days can be mitigated.*

## **MANAGEMENT ISSUES**

**Concern No. 1:** Timely future reviews of WSCC final design submittals by City of Los Angeles.

**Status/Action** *The Contractor has completed the critical final design submittals for upcoming construction. The Contractor has a few remaining City of Los Angeles submittals that require the City review. Metro meets with the Contractor several times a week on design submittal status and works with the Contractor and City to resolve outstanding issues. Metro will continue to take action and strictly monitor the review comments from the agencies and work with the contractor to ensure submittals are coordinated, quality checked and submitted within necessary timeline for reviews.*

**Concern No. 2:** Design-builders construction schedule

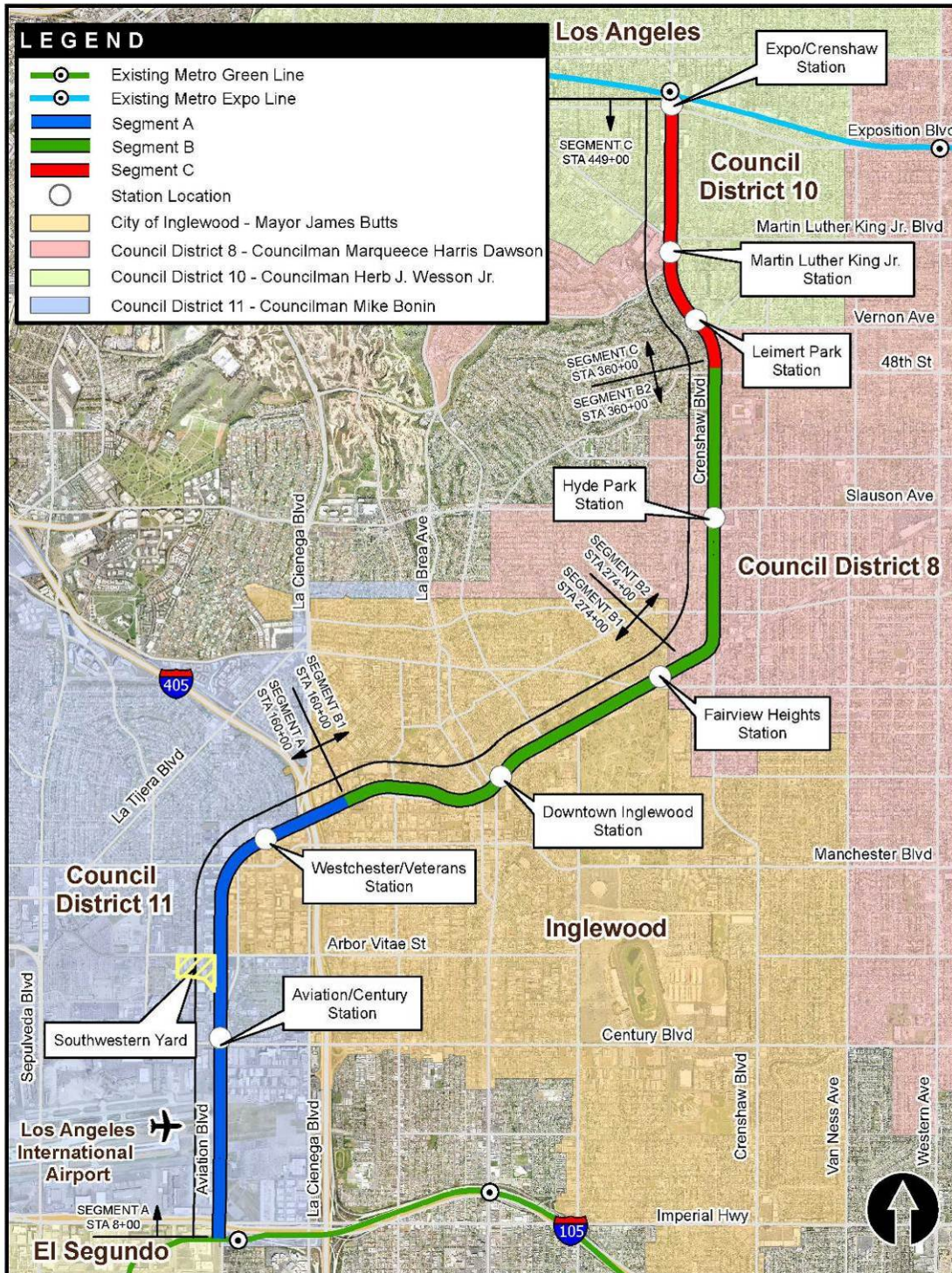
**Status/Action** WSCC submitted a "Completion Schedule" which was subsequently reviewed and approved by Metro on December 16, 2016. This schedule represents a re-baselining of WSCC's Contract schedule which reflects their means and methods for completing construction and testing during the next three years with a commitment to complete on time to support Metro's planned revenue operations in the fall of 2019. The approved Completion Schedule resets WSCC's Contract Milestone #1 Substantial Completion to May 1, 2019.

*WSCC in their July 2017 Schedule Update forecasts an 11 calendar day delay to WSCC's Contract Milestone #1 Substantial Completion date of May 1, 2019. This is an additional three calendar day delay from last month's forecast. WSCC continues to explore mitigation opportunities along the alignment where the current impact of 11 days can be mitigated.*

**Concern No. 3:** *Remaining Unallocated Contingency is less than 2% of Total Project Budget.*

**Status/Action** *Metro monitors and reports on the drawdown of unallocated contingency on a monthly basis. Staff is evaluating the potential uses of the remaining unallocated contingency and also researching funding reallocation.*

**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, pre-qualification 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**

Activity ID	Activity Name	Milestone Date	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
988-CT-84935	F/R/P OCS Foundation - Bridge - Aviation / Century Bridge	23-Jun-17 A						
988-CT-54100	Demo IPMO - SW-0001 - SW Yard	10-Jul-17 A						
988-CT-5870	Exc/Lag/Brace Phase 2 Entrance Structure to Concourse Level - Leimert Park Station	31-Jul-17						
988-IFC-OCS03	I-Face: Track Complete in Segment 3 - Start OCS (160+73 to 256+09)	22-Aug-77						
988-CT-79176	EL - OCS Foundation - Aerial Structure #1	02-Aug-17						
988-CT-84975	Bridge Emergency Walkway - Aviation / Century Bridge	11-Aug-17						
988-CT-50800	Construct TC&C #3 Walls (Services Building Room) - Aviation / Century	11-Aug-17						
988-MOD-3180	Deluge System at Expo Crossover	15-Aug-17						
988-CT-33000	Turnover to Track (sta. 9+00 to 16+64) - Aerial Structure #1	16-Aug-17						
988-SCE-T1050	TPSS-01 Permanent Power Drop - SCE - Procurement of Cable and Equipmen	17-Aug-17						
988-TW-3700	Install Ballasted #10N RHXO Crossover @ PS STA 100+81 - Seg. A	24-Aug-17						
988-MOD-2780	TPSS No.2 Upgrade from 1.5 MW to 2.0 MW	25-Aug-17						
988-CT-5659	Ductbank - Manhole / Vault / Pad / Pull Box - TPSS-07/ Aux. Power (Future)	06-Sep-17						
988-CT-23700	Turnover to Track - 111th St Bridge	14-Sep-17						
988-CT-69105	Pour Concourse Slab - Sequence 4 - MLK	19-Sep-17						
991-CON-22160	Erect Structural Framing - Service Platform Area - West Side - Seq 4 - Main Shop	26-Sep-17			△			
988-CT-36200	Turnover to Track (Manchester Bridge -STA 118+70 to 121+31) - Manchester Bridge	28-Sep-17						
991-SLT1090	Install South Yard Lead Track	29-Sep-17			△			
988-CT-7170	Pour (C9, C10, C14, C15) - Leimert Park Station	04-Oct-17						
988-TW-9684	Construct Ballasted Track (Arbor Rail Pile STA 103+50 to STA 75+20) - Seg. A	08-Oct-17						
988-CT-8360	Pour (C11, C12, C13, C16) - Leimert Park Station	12-Oct-17						
988-IFC-TCC02	I-Face: TC&C Room Ready for systems @ A02 Aviation/Century TC&C #3	16-Oct-17						
991-TW-30160	Construct Turnouts 4 TO-43	31-Oct-17				△		
988-IFC-ATC01	I-Face: Track Complete @ A01 (6+00 to 43+50)	09-Nov-17						
988-TW-1400	Destress DF Track - STA 27+15 to 28+20 - 111th St. Bridge - Seg. A	09-Nov-17						
988-SCE-T1170	TPSS-03 Permanent Power Drop - SCE - Utility Install Infrastructure and conduit	22-Nov-17						
988-TW-2100	Construct Ballasted Track - Arbor Rail Pile STA 103+50 to 118+58 Manchester - Seg. A	11-Dec-17						
988-CT-9189	Backup Power (TPSS) - TPSS-04	18-Dec-17						



MTA Board Action



MTA Staff



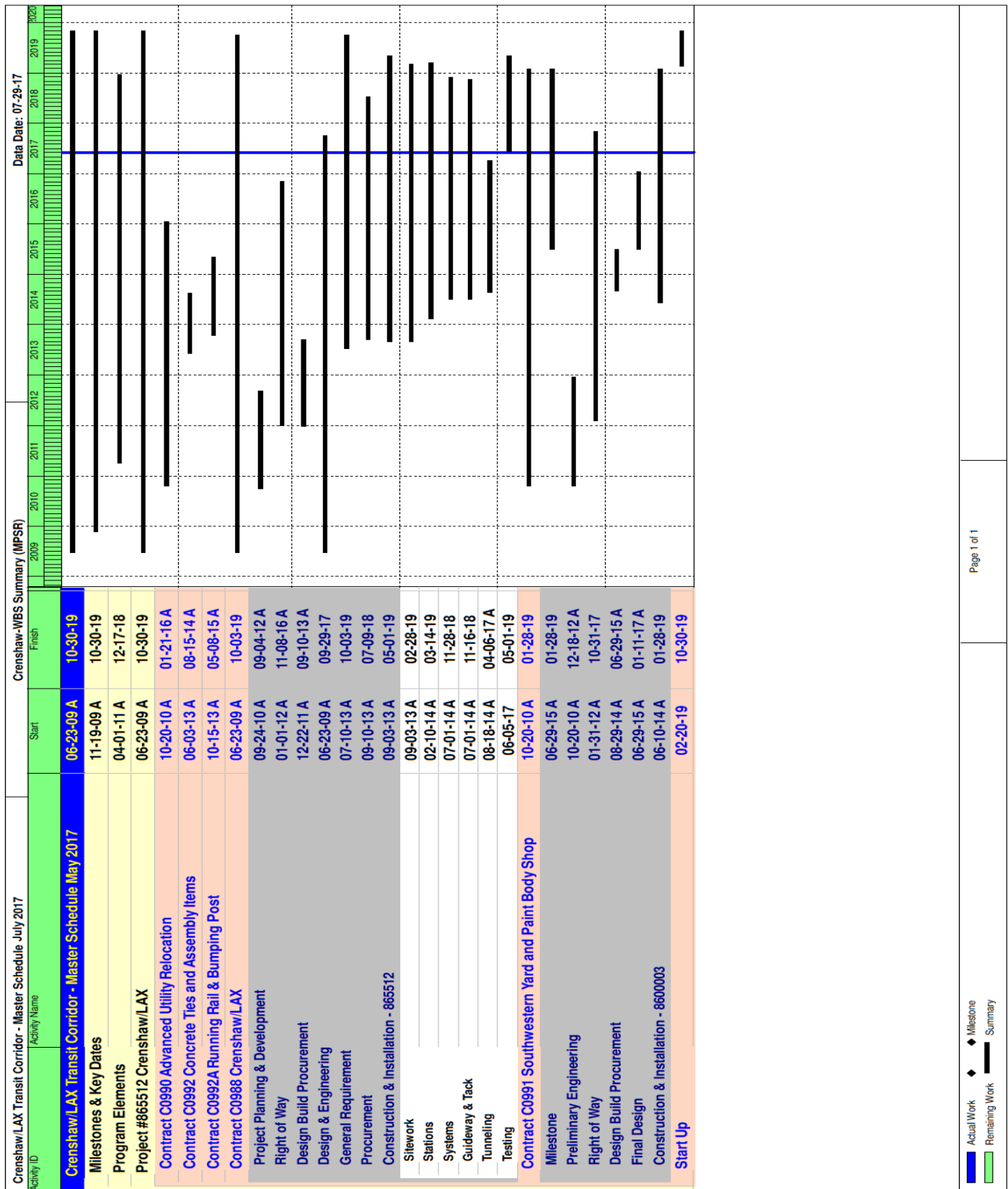
Walsh Shea Corridor Constructors



Hensel Phelps / Herzog

"A" following date is actual and completed

**PROJECT SUMMARY SCHEDULE**

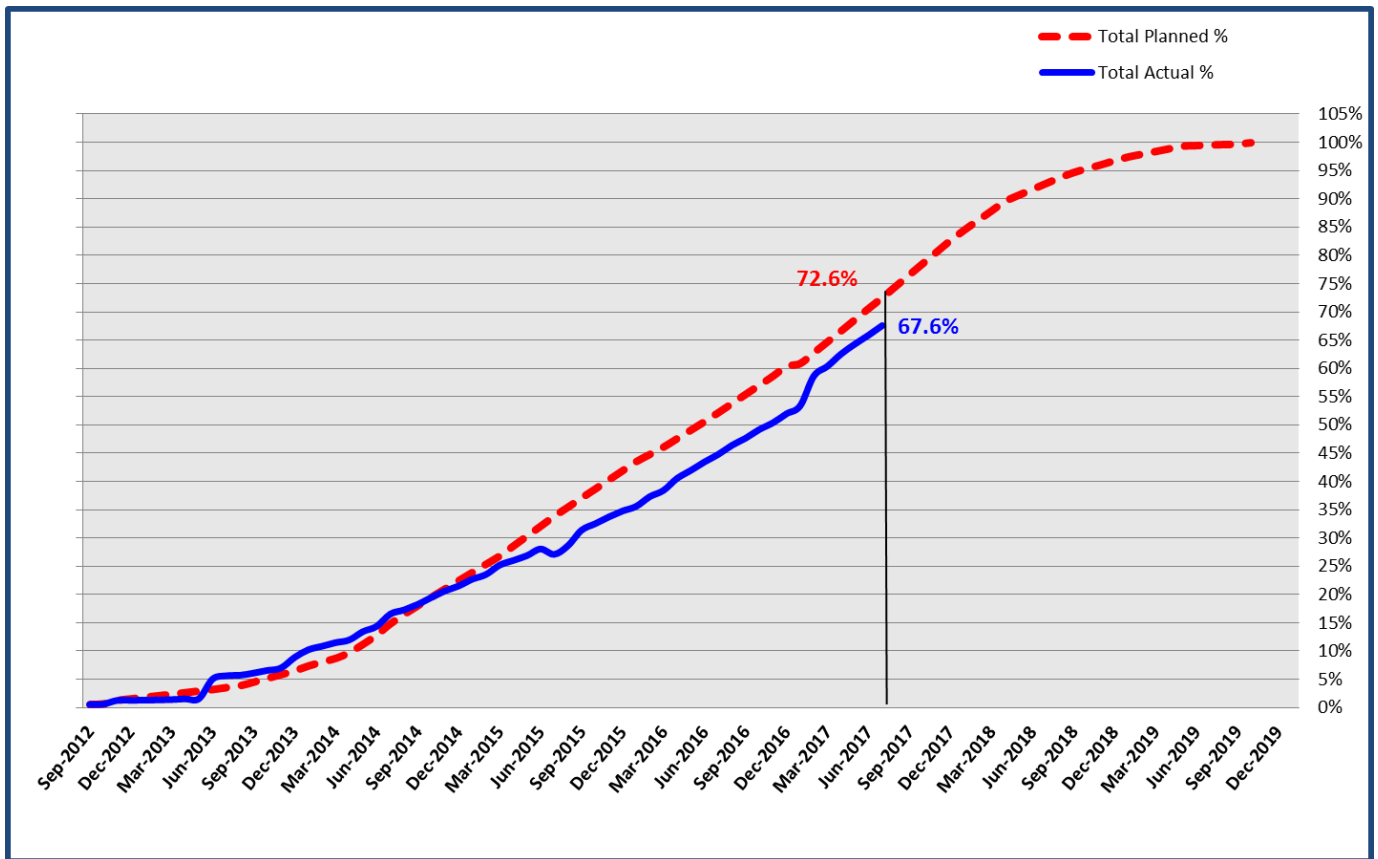


**SCHEDULE MEASUREMENTS**

	Status	Change from Last Period	Comment
Current Revenue Service:	10/30/2019	0	
Forecast Revenue Service:	11/09/2019	-10	Behind Schedule; exploring mitigation
TIFIA Revenue Service:	10/30/2019	0	
<b>Final Design Progress:</b>			
Contract C0988	98.5%	0.1%	Behind Schedule
Contract C0990	100%	None	Design Completed
Contract C0991	85.7%	1.3%	On Schedule
Contract C0992	100%	None	Design Completed
Contract C0992A	100%	None	Design Completed
<b>Construction Contracts Progress:</b>			
Contract C0988	62.2%	1.7%	Behind Schedule
Contract C0990	100%	None	Substantially Completed
Contract C0991	22.0%	4.8%	On Schedule
Contract C0992	100%	None	Substantially Completed
Contract C0992A	100%	None	Substantially Completed



## OVERALL CONSTRUCTION PROGRESS CURVE STATUS



The actual overall construction progress is 67.6% versus a planned progress of 72.6% through July 2017. The progress curves represent a composite percentage for the physical progress of work performed to complete the project’s construction contracts, including, but not limited to the alignment design-build (C0988), advance utility relocation (C0990), Southwestern Yard design-build (C0991), and two equipment procurement contracts-concrete ties (C0992) and running rail (C0992A).

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

The progress curve includes forecast for the alignment design-builder and includes the Southwestern Yard design-builder progress effort.

## **MAJOR EQUIPMENT DELIVERY STATUS**

### **Light Rail Vehicles**

The Board approved exercising Option 1 of Contract P3010 with KinkiSharyo International (KI) 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. KI is continuing final assembly on option 1 cars in Palmdale, CA.

### **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. Initiated change notice to the existing TVM contractor in December 2016 with a planned notice to proceed by October 2017.

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

Area	Activity ID	Activity Name	Start	Need Date
Site/Civil	988-PR-6945	Fab/Procure & Deliver Electrical Manholes, Vaults, Pads - At-Grade Guideway	18-Sep-15 A	20-Sep-17
Stations	988-PR-11724591	Escalators - Materials & Fabrication - Aviation / Century	31-Jul-17	12-Dec-17
Stations	988-PR-7425	Fabricate Station Artwork Panels - Crenshaw/Expo Station (Porcelain Enamel Steel)	29-Sep-17	27-Feb-18
Stations	988-PR-7465	Fabricate Station Artwork Panels- Leimert Park Station (Porcelain Enamel Steel)	29-Sep-17	6-Mar-18
Stations	988-PR-4700	Fabricate & Deliver Elevators	04-Apr-16 A	1-Apr-18
Stations	988-PR-30491	Fabricate 100% of Artwork Panels- Fairview Heights Station (Porcelain Enamel Steel)	19-Jan-18	19-Jun-18
Stations	988-PR-7505	Fabricate Station Artwork Panels- Martin Luther King Jr. Station (Porcelain Enamel Steel)	19-Jan-18	26-Jun-18
Stations	988-PR-11724621	Metro Orders/Fabricates Underground Station Tile Artwork	30-Jun-17 A	12-Nov-18
Trackwork	988-PR-30731	P/S R/A Shop Dwgs Restraining Rail 132 lbs & Fasteners for Green Line	16-Nov-16 A	21-Aug-17
Trackwork	988-PR-7085	Procure Restraining Rail 132 lbs & Fasteners for Green Line	3-Aug-17	29-Nov-17
Traction Power	988-PR-6705	Fabricate & Deliver Dry Type Transformers - Century	04-Feb-17 A	26-Sep-17
Traction Power	988-PR-6555	Fabricate & Deliver Medium Voltage Cable	03-Apr-17 A	4-Oct-17
Traction Power	988-PR-6955	Fabricate & Deliver Low Voltage Cable - Cut & Fill	03-Apr-17 A	11-Oct-17
Traction Power	988-PR-6765	Fabricate & Deliver Low Voltage Cable (Project Wide)	31-Jul-17	19-Oct-17
Traction Power	988-PRC-T0600	Mfgr/Assemble/Wire Substation - TPSS-06	01-May-17 A	3-Nov-17
Traction Power	988-PRC-T0500	Mfgr/Assemble/Wire Substation - TPSS-05	22-May-17 A	27-Nov-17
Traction Power	988-PRC-T0200	Mfgr/Assemble/Wire Substation - TPSS-02	10-Jul-17 A	1-Dec-17
Traction Power	988-PRC-T0100	Mfgr/Assemble/Wire Substation - TPSS-01	13-Jun-17 A	18-Dec-17

**Crenshaw/LAX Transit Project  
Monthly Project Status Report**

**July 2017**

Traction Power	988-PRC-T0300	Mfgr/Assemble/Wire Substation - TPSS-03	21-Aug-17	30-Jan-18
Traction Power	988-PR-6545	Fabricate & Deliver TPSS Generator	3-Aug-17	9-Feb-18
Traction Power	988-PRC-T0800	Mfgr/Assemble/Wire Substation - TPSS-08	4-Oct-17	14-Mar-18
Traction Power	988-PR-6475	Fabricate & Deliver Pad Mount Transformer - TPSS	31-Jul-17	10-Apr-18
Traction Power	988-PRC-T1000	Mfgr/Assemble/Wire Substation - TPSS-10	15-Nov-17	25-Apr-18
Traction Power	988-PRC-T0900	Mfgr/Assemble/Wire Substation - TPSS-09	10-Jan-18	18-Jun-18
Traction Power	988-PRC-T0310	Factory Acceptance Testing - TPSS-03	26-Jan-18	22-Jun-18
Traction Power	988-PRC-T0320	Prepare & Ship TPSS-03	9-Feb-18	9-Jul-18
Overhead Contact System	988-PRC-O0020	OCS: Manufacture / Deliver Poles	17-Feb-17 A	29-Nov-17
Procurement - Signal System	988-PRC-A3110	ATC: Factory Acceptance Test @ Arbor (85+90 to 130+00)	02-Jun-17 A	17-Nov-17
Procurement - Signal System	988-PRC-A3120	ATC: Develop Factory Acceptance Test Report @ Arbor (85+90 to 130+00)	21-Aug-17	11-Dec-17
Procurement - Communication System	988-PRC-C0050	Mfgr/Test/Ship Complete Comm Racks - MGL TCCB & ROC	31-Jul-17	15-Dec-17
Procurement - Communication System	988-PRC-C0051	Deliver & Receive Complete Comm Racks - MGL TCCB & ROC	10-Oct-17	18-Dec-17
Procurement - Signal System	988-PRC-A3130	ATC: Pack & Ship Train Control Bungalow @ Arbor (85+90 to 130+00)	12-Sep-17	26-Dec-17
Procurement - Communication System	988-PRC-C1400	COM: Procure Equip. Complete		26-Jan-18
Procurement - Communication System	988-PRC-C0009	Procure/Deliver IDS Wire & Cable	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0008	Procure/Deliver Fire Alarm Wire & Cable	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0025	Procure Equip. & Components for PA/VMS	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0020	Procure Equip. & Components for CCTV	21-Jun-17 A	26-Jan-18

**Crenshaw/LAX Transit Project  
Monthly Project Status Report**

**July 2017**

Procurement - Communication System	988-PRC-C0075	Procure Equip. & Components for Portal Surveillance	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0070	Procure Equip. & Components for Telephone	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0065	Procure Equip. & Components for Seismic Detection	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0060	Procure Equip. & Components for SCADA	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0055	Procure Equip. & Components for Radio	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0045	Procure Equip. & Components for Intrusion Detection	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0040	Procure Equip. & Components for Gas Detection	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0035	Procure Equip. & Components for Fire Alarm	1-Aug-17	26-Jan-18
Procurement - Communication System	988-PRC-C0030	Procure Equip. & Components for EMP	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0016	Procure/Deliver TVM Wire & Cable	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0014	Procure/Deliver Radio Wire & Cable	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0013	Procure/Deliver CCTV Wire & Cable	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0012	Procure/Deliver PA/VMS Wire & Cable	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0011	Procure/Deliver Telephone Wire & Cable	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0005	Procure Equip. & Components for CTS	21-Jun-17 A	26-Jan-18
Procurement - Communication System	988-PRC-C0010	Procure/Deliver CTS Wire & Cable	21-Jun-17 A	26-Jan-18

**Crenshaw/LAX Transit Project  
Monthly Project Status Report**

**July 2017**

Procurement - Communication System	988-PRC-C0510	Mfgr/Test/Ship Complete Comm Racks - TC&C #5 - Weschester/Veterans	7-Dec-17	6-Apr-18
Procurement - Communication System	988-PRC-C0210	Mfgr/Test/Ship Complete Comm Racks - UG1 Radio Room	7-Dec-17	6-Apr-18
Procurement - Communication System	988-PRC-C0110	Mfgr/Test/Ship Complete Comm Racks - TC&C #1 Continental (12+00)	7-Dec-17	6-Apr-18
Procurement - Communication System	988-PRC-C0610	Mfgr/Test/Ship Complete Comm Racks - TC&C #6 Inglewood	7-Dec-17	25-May-18
Procurement - Communication System	988-PRC-C0410	Mfgr/Test/Ship Complete Comm Racks - TC&C #4 Arbor	7-Dec-17	25-May-18
Procurement - Communication System	988-PRC-C0310	Mfgr/Test/Ship Complete Comm Racks - TC&C #3 Century	7-Dec-17	25-May-18
Procurement - Communication System	988-PRC-C0100	Mfgr/Test/Ship Complete Comm Racks - TC&C #7 Colina	7-Dec-17	29-May-18
Procurement - Communication System	988-PRC-C0710	Mfgr/Test/Ship Complete Comm Racks - TC&C #8 Fairview Heights	7-Dec-17	29-May-18
Procurement - Communication System	988-PRC-C1010	Mfgr/Test/Ship Complete Comm Racks - 48th Street Radio House	7-Dec-17	10-Jul-18
Procurement - Communication System	988-PRC-C0810	Mfgr/Test/Ship Complete Comm Racks - UG3 Radio Room	7-Dec-17	10-Jul-18
Procurement - Communication System	988-PRC-C1110	Mfgr/Test/Ship Complete Comm Racks - TC&C #10 Leimert Park	7-Dec-17	28-Aug-18
Procurement - Communication System	988-PRC-C0910	Mfgr/Test/Ship Complete Comm Racks - TC&C #9 Hyde Park	7-Dec-17	28-Aug-18
Procurement - Communication System	988-PRC-C1310	Mfgr/Test/Ship Complete Comm Racks -TC&C #12 EXPO	7-Dec-17	29-Aug-18
Procurement - Communication System	988-PRC-C1210	Mfgr/Test/Ship Complete Comm Racks -TC&C #11 MLK	7-Dec-17	29-Aug-18

## **CRITICAL PATH NARRATIVE**

### **Critical Path:**

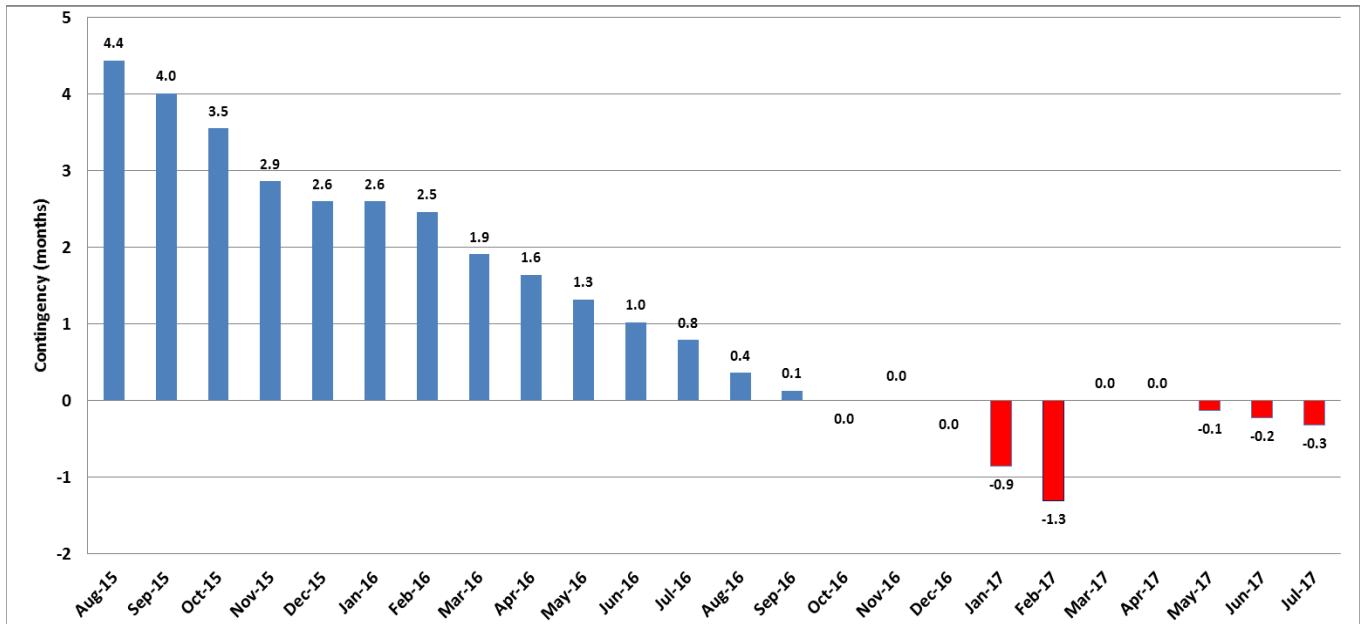
With the addition of construction activities for the accommodations to support a future LRT station at 96th Street in the approved Completion Schedule the project's critical path changed in December 2016. The critical path for the project as shown in the design-builder's Completion Schedule has shifted from the tunnel boring machine mining operations and tunnel concreting activities to the accommodations construction activities to support a future LRT station at 96th Street.

The revised critical path activities include the construction of 96th Street infrastructure, all ballasted walls and operator relief platform in Segment A, trackwork, systems work, and automatic train control (ATC) field acceptance testing at train control and communication (TC&C) room No. 3. The ATC field acceptance testing then continues for Segments B and C. The critical path continues with design-builder's systems integration testing, phase 1, leading to the design-builder's substantial completion milestone.

The current critical path is ballasted track installation at Segment "A", followed by train controls/communication installation at TC&C #9. This is followed by the ATC acceptance testing for TC&C #9 and #11.

The current critical path then continues with WSCC systems integration testing, phase 1 and Metro's systems integration testing, and phases 2 and Metro's pre-revenue operations. The critical path completes with the commencement of revenue operations.

**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.

Metro received and approved a revised baseline schedule (Completion Schedule) from the C0988 design-builder in December 2016. With the extension of time for the design-builders Substantial Completion Milestone to May 1, 2019 and a Metro/design-builder commitment to achieving an October 30, 2019 revenue operations date, no planned schedule contingency exists in the revised baseline schedule.

The C0988 design-builder submitted a schedule update that forecast an eleven (11) calendar day delay to their substantial completion milestone of May 1, 2019. The design-builder is looking at several options of mitigating this forecast delay. Metro therefore has reflected the potential delay as a drawdown of schedule contingency this month until the design-builder has implemented mitigation measures.



**PROJECT COST STATUS**

SCC CODE	DESCRIPTION	ORIGINAL BUDGET	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		CURRENT BUDGET/ FORECAST VARIANCE
			PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
10	GUIDEWAYS	471,335,000	-	450,354,375	391,355	450,770,490	9,845,738	350,975,557	-	450,773,510	419,136
20	STATIONS	153,906,000	-	315,050,000	1,864,998	315,975,352	2,812,558	165,646,416	1,864,998	315,975,352	925,352
30	SUPPORT FACILITIES SOUTHWEST YARD	66,673,000	-	71,164,000	-	71,053,330	1,544,413	28,523,657	-	71,164,000	-
40	SITWORK/SPECIAL CONDITIONS	235,576,000	-	395,798,361	589,912	394,201,936	3,933,906	309,095,688	589,912	402,761,611	6,963,249
50	SYSTEMS	125,132,000	-	169,436,000	16,000	155,700,985	3,540,430	38,984,675	16,000	170,411,775	975,775
<b>CONSTRUCTION SUBTOTAL (10-50)</b>		<b>1,052,622,000</b>	<b>-</b>	<b>1,401,802,736</b>	<b>2,862,265</b>	<b>1,387,702,093</b>	<b>21,677,046</b>	<b>893,225,993</b>	<b>2,470,910</b>	<b>1,411,086,248</b>	<b>9,283,511</b>
60	RIGHT-OF-WAY	132,294,000	-	127,490,000	(12)	127,469,708	54,260	127,362,498	-	127,490,000	-
70	LRT VEHICLES	87,780,000	-	83,571,544	-	82,050,901	12,086,698	39,840,387	-	83,571,544	-
80	PROFESSIONAL SERVICES	273,147,000	-	368,734,466	(1,387,751)	320,010,072	4,478,432	287,603,534	831,758	371,053,799	2,319,334
<b>SUBTOTAL (10-80)</b>		<b>1,545,843,000</b>	<b>-</b>	<b>1,981,598,746</b>	<b>1,474,502</b>	<b>1,917,232,774</b>	<b>38,296,437</b>	<b>1,348,032,412</b>	<b>3,302,668</b>	<b>1,993,201,591</b>	<b>11,602,845</b>
90	UNALLOCATED CONTINGENCY	177,157,000	-	50,401,254	-	-	-	-	(3,302,668)	38,798,409	(11,602,845)
<b>TOTAL PROJECT 865512 (10-100)</b>		<b>1,723,000,000</b>	<b>-</b>	<b>2,032,000,000</b>	<b>1,474,502</b>	<b>1,917,232,774</b>	<b>38,296,437</b>	<b>1,348,032,412</b>	<b>-</b>	<b>2,032,000,000</b>	<b>-</b>
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	-
<b>TOTAL PROJECTS 405512 &amp; 465512 (ENV / PLAN'G)</b>		<b>26,000,000</b>	<b>-</b>	<b>26,000,000</b>	<b>-</b>	<b>25,549,388</b>	<b>-</b>	<b>25,549,388</b>	<b>-</b>	<b>26,000,000</b>	<b>-</b>
<b>TOTAL PROJECTS 405512, 465512 &amp; 865512</b>		<b>1,749,000,000</b>	<b>-</b>	<b>2,058,000,000</b>	<b>1,474,502</b>	<b>1,942,782,161</b>	<b>38,296,437</b>	<b>1,373,581,800</b>	<b>-</b>	<b>2,058,000,000</b>	<b>-</b>

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH 28-JUL-2017.

**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:
  - Increase LOP base project scope in the amount of \$160.1 million, and
  - 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 in May 2015 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 was 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 was revised to

## **PROJECT COST ANALYSIS (Continued)**

\$150.2 million. 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 Current Budget allocation for the Crenshaw/LAX Transit Project, excluding the Southwestern Yard Project \$150.2 million 49% allocation and the Environmental/Planning Current Budget of \$26.0 million is \$1,881.8 million.

Although there is no change to the Total LOP Current Budget there was a reallocation for changes to the SCC elements within the Current Budget in April 2017. The reallocation was required due to the draw down to date of the SCC 90 Allocated Contingency for changes issued to the design-build contractor, additional relocations of utilities by third parties, additional legal services and special services as well as an increase in professional services for construction and project management oversight.

### **Current Forecast:**

The total project current forecast is \$2,058 million. However, there was a reallocation of forecast within the SCC-20 (Guideways), SCC-40 (Sitework and Special Conditions), SCC-50 (Systems), SCC-80 (Professional Services) and a corresponding reduction to SCC-90 (Unallocated Contingency) per FTA Guidelines.

### **Commitments:**

The commitments are cumulative through July 28, 2017. The total commitments increased by \$1.5 million this period primarily due to the following:

- SCC-10 (Guideways) has increased by \$0.4 million for executed modifications associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-20 (Stations, Stops, Terminals, Intermodal) has increased by \$1.9 million for executed modifications associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-40 (Sitework and Special Conditions) has increased by \$0.6 million for executed modifications associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-80 (Professional Services) has decreased of \$1.4 million due to executed modifications associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor, design coordination oversight by Caltrans District 07, environmental consultant services and de-commitment of P.O. funds for third party coordination by Los Angeles City Departments. The total commitment of \$320.0 million includes \$19.9 million for the Southwestern Yard 49% allocation.

The \$1,942.8 million in commitments to date represents 94.4% of the current budget.

**PROJECT COST ANALYSIS (Continued)**

**Expenditures:**

The expenditures are cumulative through July 28, 2017. The total expenditures increased by \$38.3 million this period due to the following:

- SCC-10 (Guideways) has increased by \$9.9 million for costs associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-20 (Stations, Stops, Terminals, Intermodal) has increased by \$2.8 million for costs associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-30 (Southwestern Yard) has increased by \$1.5 million for costs associated with the design-build Contract C0991 Division 16: Southwestern Yard (Design/Build).
- SCC-40 (Sitework and Special Conditions) has increased by \$3.9 million for costs associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-50 (Systems) has increased \$3.5 million for costs associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-60 (Right-of-Way) has increased \$0.1 million for cost associated with real estate acquisition and relocation. The total expenditure of \$127.4 million includes \$53.3 million for the Southwestern Yard 49% allocation.
- SCC-70 (Vehicles) has increased by \$12.1 for costs associated with exercising Option 1 of the P3010 Contract with KINKISHARYO INTERNATIONAL, LLC. to procure 22 light rail vehicles.
- SCC-80 (Professional Services) has increased by \$4.5 million for costs associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor, Engineering and Design Contract E0117, Contract C0991 Division 16: Southwestern Yard (Design/Build), Metro project administration, IPMO field office lease and utilities, construction management support, legal services, third party coordination by Los Angeles City Departments, community relations, labor compliance monitoring, material test laboratory and environmental consultant services. The total expenditure of \$287.6 million includes \$15.2 million for the Southwestern Yard 49% allocation.

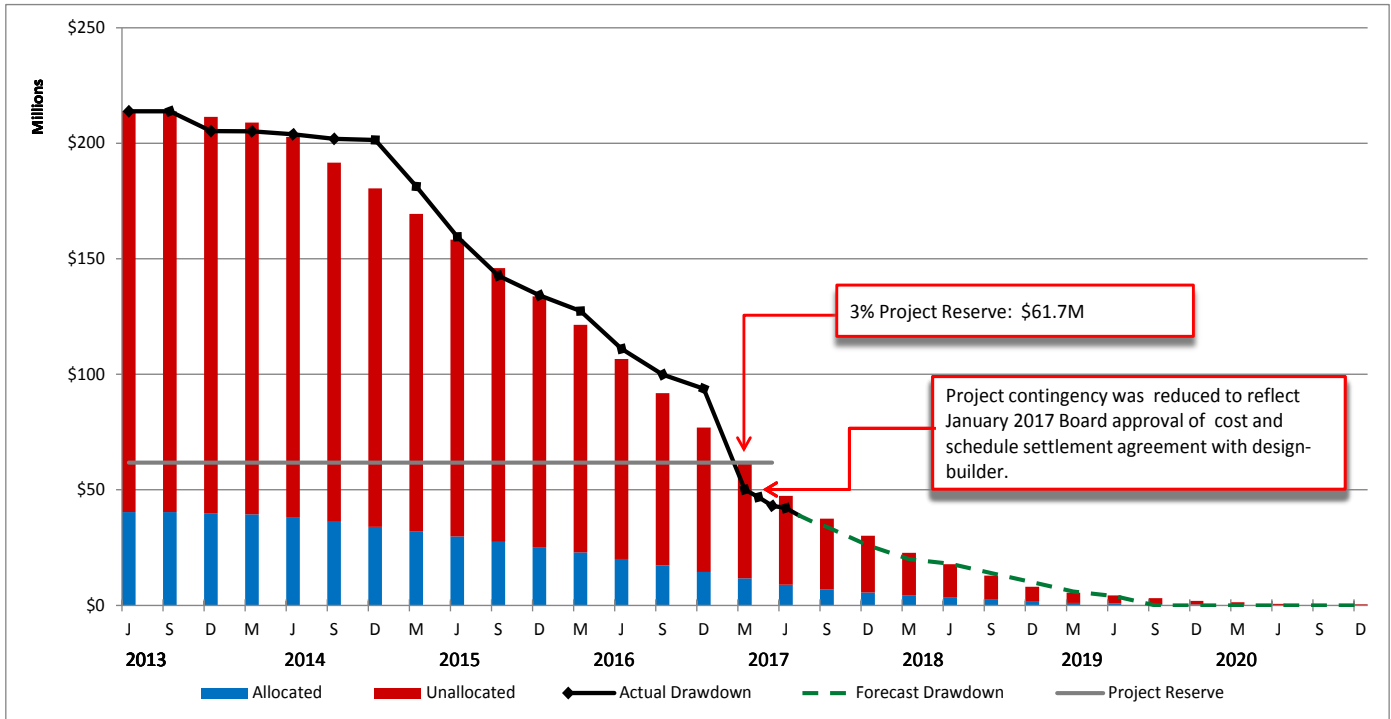
The \$1,373.6 million in expenditures to date represents 66.7% of the current budget

**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 alignment design-builder (Contract C0988)

C0988 NON-CRENSHAW/LAX TRANSIT PROJECT FUNDED SCOPE OF WORK										
DESCRIPTION	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		FORECAST VARIANCE	
	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE		
405556 SYSTEMWIDE TRANSIT PLANNING	-	175,495	-	175,495	-	175,495	-	175,495	-	
210090/93 FARE GATE PROJECT	-	2,482,746	-	2,482,746	-	172,746	-	2,482,746	-	
210152 CRENSHAW/LAX BUS TRANSFER FACILITY	-	2,200,000	-	2,200,000	8,047	403,334	-	2,200,000	-	
460303 AIRPORT METRO CONNECTOR	-	37,914,465	470,696	35,794,171	561,209	32,645,882	-	37,914,465	-	
500013 C/LAX LAWA SCOPE OF WORK	-	1,575,362	-	531,125	-	408,712	-	1,575,362	-	
<b>TOTAL</b>	-	<b>44,348,068</b>	<b>470,696</b>	<b>41,183,537</b>	<b>569,256</b>	<b>33,806,169</b>	-	<b>44,348,068</b>	-	

**PROJECT COST CONTINGENCY DRAWDOWN**



Through 28-Jul-2017

**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.

In February 2017, the project contingency drawdown curve went below the 3% project reserve level and the Board was notified.

The project contingency drawdown curve is based on an October 2019 revenue service date. In February 2017, the forecast drawdown curve was revised.

**PROJECT CONTINGENCY DRAWDOWN ANALYSIS (Continued)**

There has been a cumulative drawdown of \$175,068,383 or 81.9% for both allocated and unallocated contingency through July 2017.

- The unallocated contingency decreased by \$3,302,668 for executed modifications for design-build contract C0988 Crenshaw/LAX Transit Corridor, design coordination oversight by Caltrans District 07, contract PS12251 with BCA Watson Rice LLP for change order audit services and environmental consultant support services.
- There is no allocated contingency remaining as of February 2017 month-end reporting.

<b>PROJECT COST CONTINGENCY (through 28-Jul-2017)</b>					
<b>UNITS IN DOLLARS</b>					
	Original Contingency (Budget)	Previous Period	Current Period	To-Date	Remaining Contingency (Forecast)
Unallocated Contingency	173,500,000	(131,398,923)	(3,302,668)	(134,701,591)	38,798,409
Allocated Contingency	40,366,792	(40,366,792)	-	(40,366,792)	0
<b>Total Contingency</b>	<b>213,866,792</b>	<b>(171,765,715)</b>	<b>(3,302,668)</b>	<b>(175,068,383)</b>	<b>38,798,409</b>

**DISADVANTAGED BUSINESS ENTERPRISE (DBE) STATUS**

**Contract C0988 Crenshaw/LAX Transit Corridor Design-Build**

(Reported Data as of July 2017)

- DBE Goal (Design)** – A numerically expressed percentage of funds apportioned to Design Contracts and is calculated based upon the relative availability of DBE firms as compared to all firms in the relevant geographic market area. **20.00%**
- Current DBE Commitment** – Total DBE Committed Dollars divided by Total Contract Value for Design or Construction. **\$23,148,914 (20.00%)**
- Current DBE Participation** – Total amount paid to date to DBEs divided by the amount paid to date to Prime. **\$27,633,074 (25.98%)**

Twenty-Six (26) Design subcontractors have been identified to-date

- DBE Goal (Construction)** - A numerically expressed percentage of funds apportioned to Construction Contracts and is calculated based upon the relative availability of DBE firms as compared to all firms in the relevant geographic market area. **20.00%**
- DBE Commitment** - Contract commitment divided by current contract value for Construction. **\$251,067,446 (20.00%)**
- Current DBE Commitment** - Actual commitments as Construction work is awarded. **\$238,592,323 (19.01%)**
- Current DBE Participation** - Total amount paid to date to DBEs divided by the amount paid to date to Prime **\$180,210,009 (22.92%)**

153 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 2017)

• <b>Targeted Worker Goal</b> – Construction work to be performed by residents from Economically Disadvantaged Area of LA County	<b>40.00%</b>
<b>Targeted Worker Current Attainment</b>	<b>59.26%</b>
• <b>Apprentice Worker Goal</b> – Construction work to be performed by Apprentices	<b>20.00%</b>
<b>Apprentice Worker Current Attainment</b>	<b>21.97%</b>
• <b>Disadvantaged Worker Goal</b> – Construction work to be performed by Disadvantaged Workers whose primary place of residence is within LA County	<b>10.00%</b>
<b>Disadvantaged Worker Current Attainment</b>	<b>12.59%</b>

**DISADVANTAGED BUSINESS ENTERPRISE (DBE) STATUS**

**Contract C0991 Division 16: Southwestern Yard Design-Build**

(Reported Data as of June 2017)

- **DBE Goal (Design)** – A numerically expressed percentage of funds apportioned to Design Contracts and is calculated based upon the relative availability of DBE firms as compared to all firms in the relevant geographic market area. **20.00%**
- **Current DBE Commitment** – Total DBE Committed Dollars divided by Total Contract Value for Design or Construction. **\$2,383,718 (20.93%)**
- **Current DBE Participation** – Total amount paid to date to DBEs divided by the amount paid to date to Prime. **\$1,645,131.59 (17.93%)**

Nine (9) Design subcontractors have been identified to-date

- **DBE Goal (Construction)** - A numerically expressed percentage of funds apportioned to Construction Contracts and is calculated based upon the relative availability of DBE firms as compared to all firms in the relevant geographic market area. **16.00%**
- DBE Commitment** - Contract commitment divided by current contract value for Construction. **\$27,806,897 (16.00%)**
- **Current DBE Commitment** - Actual commitments as Construction work is awarded **\$23,166,829.43 (13.33%)**
- Current DBE Participation** - Total amount paid to date to DBEs divided by the amount paid to date to **\$3,854,256.86 (11.37%)**

Forty-three (43) Construction subcontractors have been identified to-date.

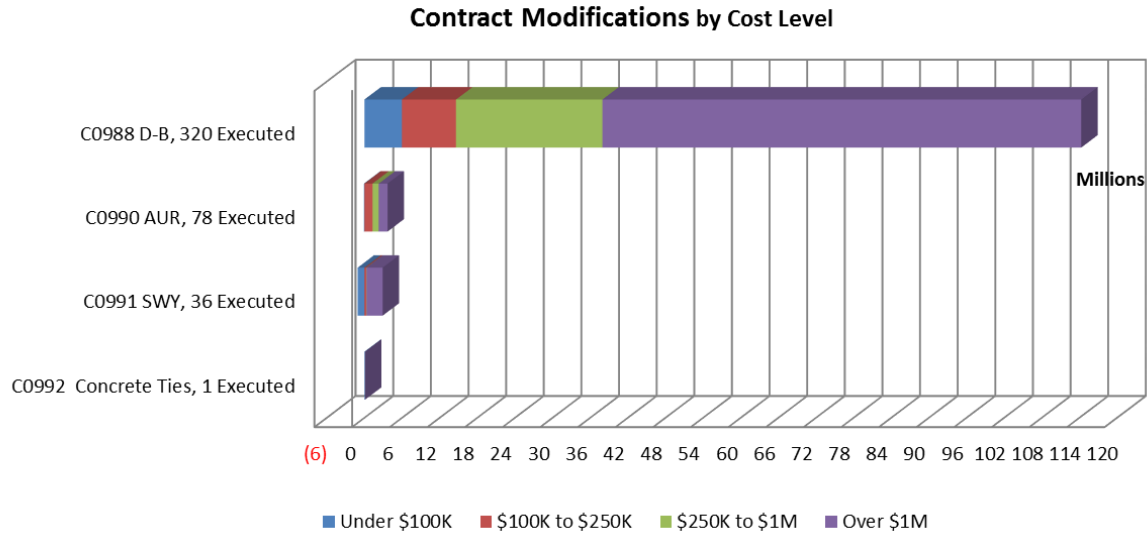


**PROJECT LABOR AGREEMENTS (PLA) STATUS**

**Contract C0991 Division 16: Southwestern Yard Design-Build**  
(Reported Data as of June 2017)

• <b>Targeted Worker Goal</b> – Construction work to be performed by residents from Economically	<b>40.00%</b>
<b>Targeted Worker Current Attainment</b>	<b>52.42%</b>
• <b>Apprentice Worker Goal</b> – Construction work to be performed by Apprentices	<b>20.00%</b>
<b>Apprentice Worker Current Attainment</b>	<b>21.21%</b>
• <b>Disadvantaged Worker Goal</b> – Construction work to be performed by Disadvantaged Workers whose primary place of residence is within LA County	<b>10.00%</b>
<b>Disadvantaged Worker Current Attainment</b>	<b>11.73%</b>

**SUMMARY OF CONTRACT MODIFICATIONS**



	<b>C0988</b>	<b>C0990</b>	<b>C0991</b>	<b>C0992</b>
	<b>320 Executed</b>	<b>78 Executed</b>	<b>36 Executed</b>	<b>1 Executed</b>
<b>Under \$100K</b>	\$ 5,958,271.88	(\$ 70,250.91)	(\$ 1,068,352.31)	\$ 81,738.00
<b>\$100k to \$250K</b>	\$ 8,639,361.74	\$ 1,280,183.74	\$ 282,420.00	\$ 0.00
<b>\$250K to \$1M</b>	\$ 23,344,520.58	\$ 984,662.39	\$ 32,580.00	\$ 0.00
<b>Over \$1M</b>	\$ 76,351,733.81	\$ 1,417,201.61	\$ 2,590,000.00	\$ 0.00
<b>Total Contract MODs</b>	<b>\$ 114,293,888.01</b>	<b>\$ 3,611,796.83</b>	<b>\$ 1,836,647.69</b>	<b>\$ 81,738.00</b>
<b>% of Contract MODs</b>	<b>8.98%</b>	<b>46.14%</b>	<b>1.07%</b>	<b>3.78%</b>

Three hundred and twenty (320) changes with a total value of \$114.29 million have been executed since award of Contract C0988. There are an additional thirty-eight (38) changes with a total value of \$0.42 million pending the administrative approval process.

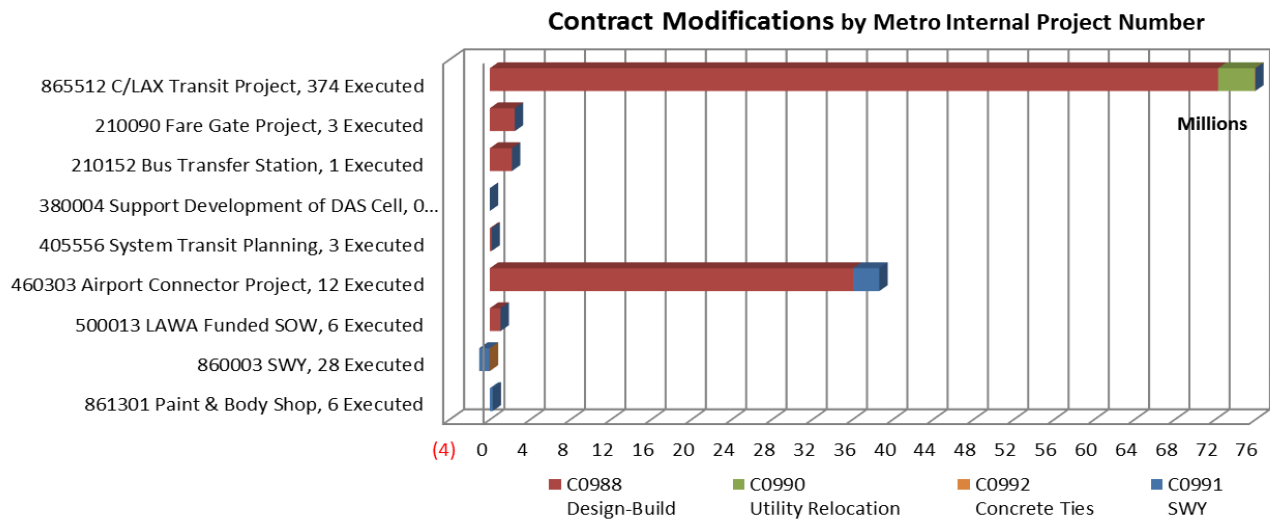
Seventy-eight (78) changes with a total value of \$3.61 million have been executed for completed Contract C0990.

Thirty-six (36) changes with a total value of \$1.84 million have been executed since award of Contract C0991. There are an additional six (6) changes with a total value of \$0.10 million pending the administrative approval process.

One (1) change with a value of \$81,738 was executed for completed Contract C0992.

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

## SUMMARY OF CONTRACT MODIFICATIONS



	865512	210090	210152	405556	460303	500013	860003	861301
	Executed	Executed	Executed	Executed	Executed	Executed	Executed	Executed
<b>C0988 - QTY</b>	295	3	1	3	10	6	0	0
<b>C0988 - \$</b>	72,302,463	2,482,746	2,200,000	175,495	36,069,273	1,063,911	0	0
<b>C0990 - QTY</b>	78	0	0	0	0	0	0	0
<b>C0990 - \$</b>	3,611,797	0	0	0	0	0	0	0
<b>C0991 - QTY</b>	0	0	0	0	2	0	28	6
<b>C0991 - \$</b>	0	0	0	0	2,598,580	0	(1,041,358)	279,426
<b>C0992 - QTY</b>	1	0	0	0	0	0	0	0
<b>C0992 - \$</b>	81,738	0	0	0	0	0	0	0
<b>Total - QTY</b>	<b>374</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>12</b>	<b>6</b>	<b>28</b>	<b>6</b>
<b>Total - \$</b>	<b>75,995,998</b>	<b>2,482,746</b>	<b>2,200,000</b>	<b>175,495</b>	<b>38,667,853</b>	<b>1,063,911</b>	<b>(1,041,358)</b>	<b>279,426</b>

Three seventy four (374) changes with a total value of \$76.00 million have been executed for Project 865512 Crenshaw/LAX Transit Project. There are an additional thirty-six (36) changes with a total value of \$0.42 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.

One (1) change with a value of \$2.20 million has been executed for Project 210152 Bus Transfer Station Project.

Three (3) changes with a value of \$0.18 million have been executed for Project 405556 System Transit Planning.

Twelve (12) changes with a value of \$38.67 million have been executed for Project 460303 Airport Metro Connector Project.

Six (6) changes with a total value of \$1.06 million have been executed for Project 500013 Crenshaw/LAX LAWA Statement of Work.

Twenty eight (28) changes with a value of \$1.04 million credit have been executed for Project 860003 Southwestern Yard project. There are additional five (5) changes with a total value of \$0.10 million pending the administrative approval process.

Six (6) changes with a value of \$0.28 million have been executed for Project 861301 Southwestern Yard Paint and Body Shop.

**FINANCIAL/GRANT STATUS**

\$ in millions

SOURCE	(A)	(B)	(C)	(D)	(D/B)	(E)	(E/B)	(F)	(F/B)
	ORIGINAL BUDGET	TOTAL FUNDS ANTICIPATED	TOTAL FUNDS AVAILABLE	COMMITMENTS \$	%	EXPENDITURES \$	%	BILLED to FUNDING 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	102.2	73.7	102.2	100%	73.7	72%	56.5	55%
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%
STATE REGIONAL IMPROVEMENT PROG	36.5	36.6	2.2	36.6	100%	2.2	6%	2.2	6%
STATE PPM	0.178	0.178	0.178	0.178	100%	0.178	99%	0.179	100%
STATE PROP 1B PTMISEA	201.2	128.9	128.9	128.9	100%	128.9	100%	128.9	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%	545.9	100%	545.9	100%
MEASURE R	661.1	529.3	529.3	529.3	100%	459.7	87%	443.9	84%
OTHER FUNDS*	52.4	187.5	25.0	72.3	39%	25.0	13%	25.0	13%
PROP C 25% HIGHWAY	148.9	349.8	349.8	349.8	100%	6.0	2%	3.7	1%
PROP C 40% DISCRETIONARY	0.0	0.0	0.0	0.0	0%	0.0	0%	0.0	0%
PROP A 35% RAIL CAPITAL	4.8	50.4	50.4	50.4	100%	4.9	10%	4.9	10%
<b>TOTAL</b>	<b>1,749.0</b>	<b>2,058.0</b>	<b>1,832.5</b>	<b>1,942.8</b>	<b>94.3%</b>	<b>1,373.6</b>	<b>67.0%</b>	<b>1,338.4</b>	<b>65.0%</b>

NOTE: Expenditures are cumulative through July 28, 2017

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

Total Funds Anticipated based on August 2016 Funding Plan

\* 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.

**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:** \$446.7M has been allocated to the project through FY2017. Funds are available for drawdown.

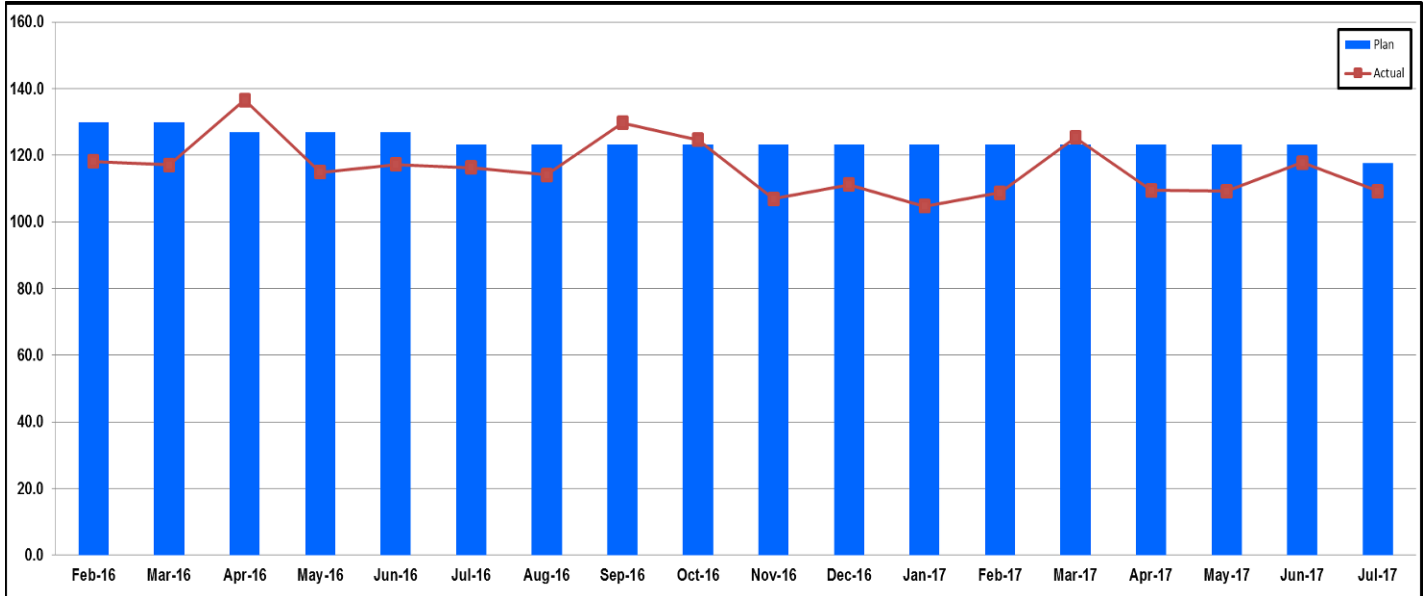
**OTHER FUNDS:** City of LA: Based on the funding agreement between Metro and the City of LA. \$19M is available for drawdown through FY2017.

**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. No Proposition A 35% Rail Capital funds are allocated for fiscal 2017.

## 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 2017.

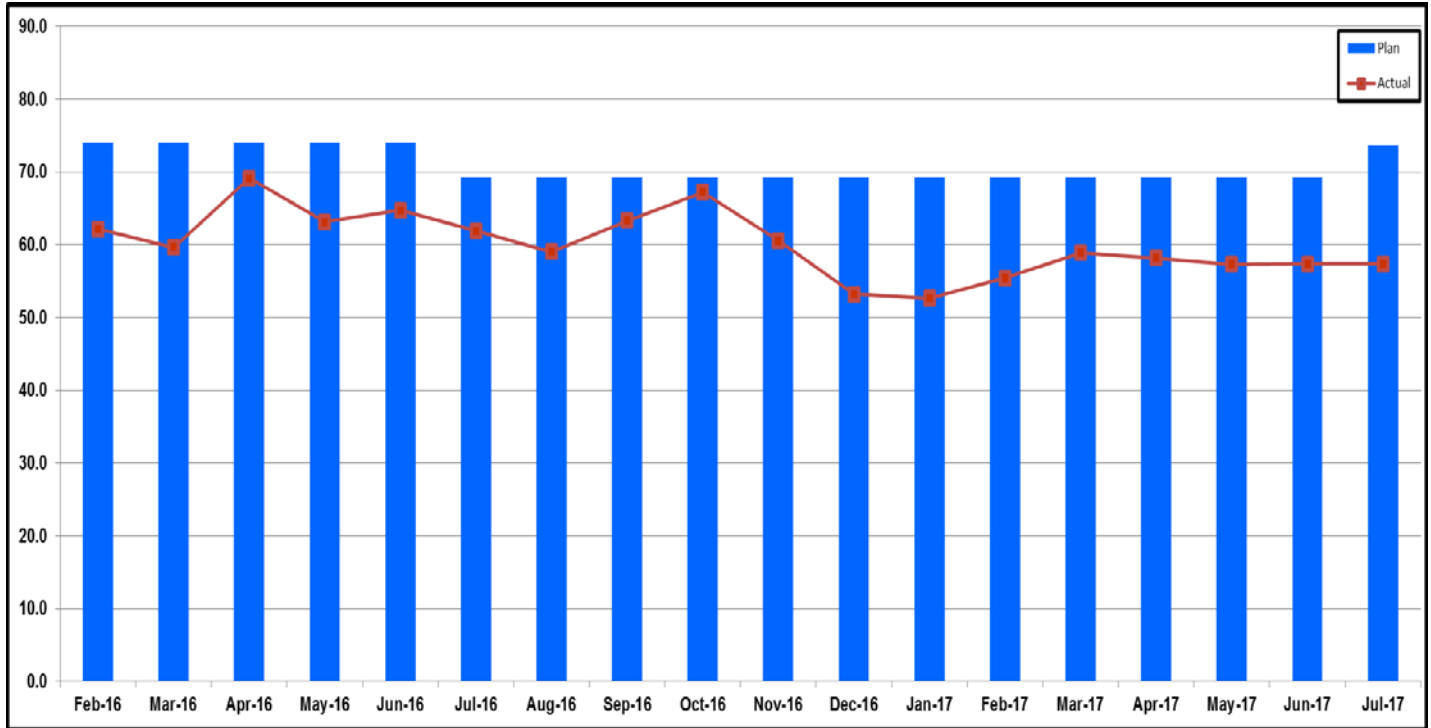
## TOTAL PROJECT STAFFING

The overall FY17 Total Project Staffing Plan averages 123.3 Full Time Equivalent (FTEs) per month consisting of 69.3 for Metro Agency staff, 47.0 for Construction Management Support Services Consultant and 7.0 for Design and Engineering Support Services Consulting staff.

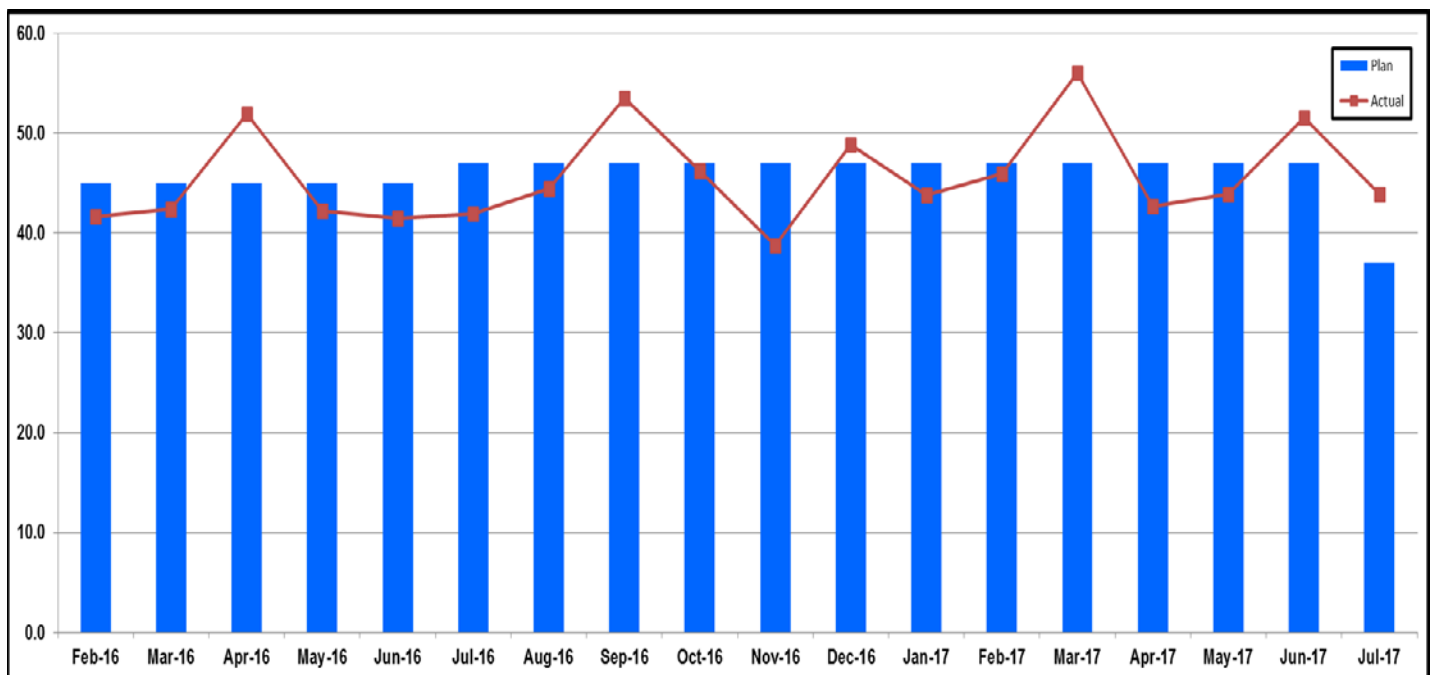
For July 2017, total project staffing were 117.7 FTEs for the month consisting of 57.4 FTEs for Metro’s project administration staff, 43.9 FTEs for Construction Management Support Services Consultant and 8.1 FTEs for Design and Engineering Support Services Consulting staff.

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

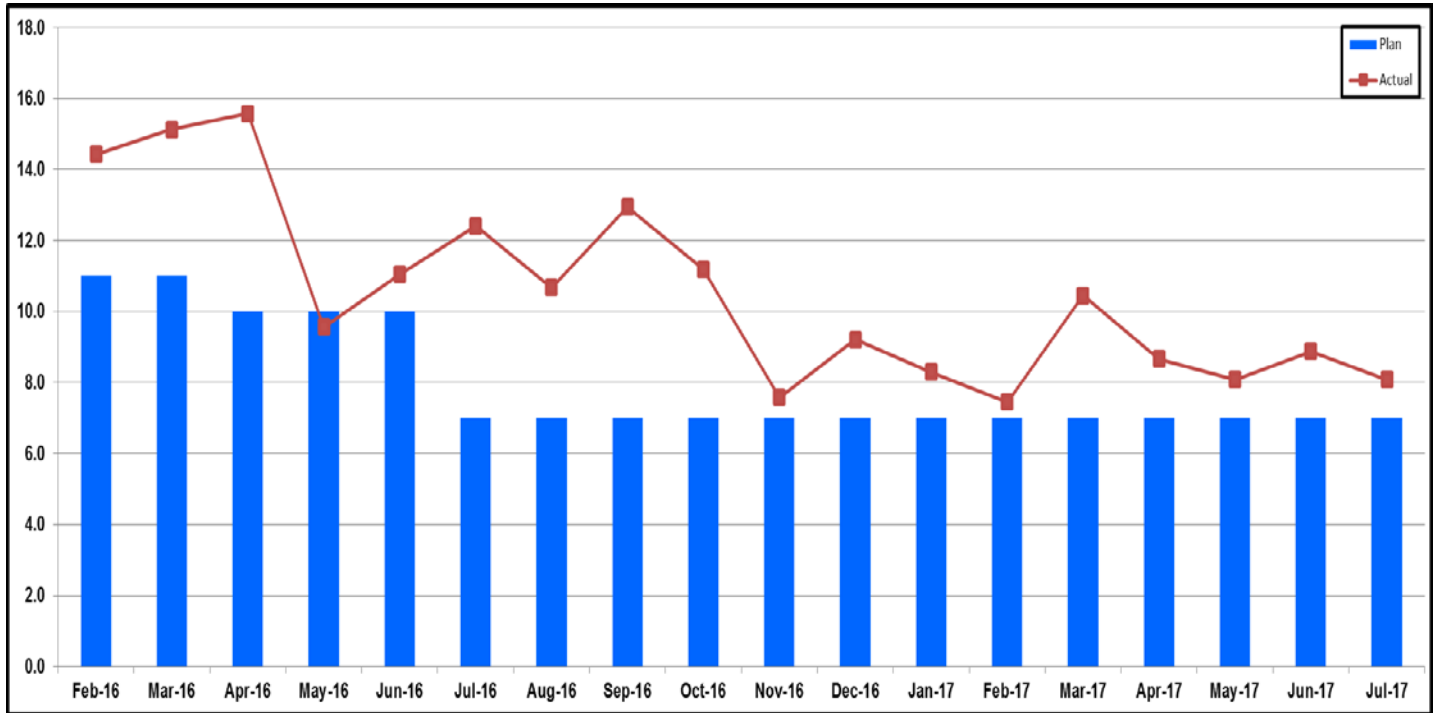
**STAFFING STATUS (Continued)  
METRO STAFFING – FTES**



**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 WSSC
<b>C0988 C/LAX Transit Corridor (D-B):</b>									
<i>Crenshaw Subdivision</i>									
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
<b>Subtotal Parcels</b>	<b>32</b>	<b>30</b>	<b>2</b>	<b>31</b>	<b>31</b>	<b>11</b>	<b>19</b>	<b>12</b>	<b>30</b>
<i>Crenshaw Subdivision Additional Parcels:</i>									
Full Takes									
Part Takes	1	1		1	1	1			
TCE									
<b>Subtotal Parcels:</b>	<b>1</b>	<b>1</b>		<b>1</b>	<b>1</b>	<b>1</b>			
<b>Total Crenshaw Parcels</b>	<b>33</b>	<b>31</b>	<b>2</b>	<b>32</b>	<b>32</b>	<b>12</b>	<b>19</b>	<b>12</b>	<b>30</b>
<i>Harbor Subdivision</i>									
Full Takes	15	15		15	15	8	7	12	15
Part Takes (PT or SE)	18	16	2	18	17	8	10		15
TCE	3	2	1	2	2		2		2
<b>Subtotal Parcels</b>	<b>36</b>	<b>33</b>	<b>3</b>	<b>35</b>	<b>34</b>	<b>16</b>	<b>19</b>	<b>12</b>	<b>32</b>
<i>Harbor Subdivision Additional Parcels:</i>									
Full Takes	3	2	1	2	1			1	1
Part Takes	4	2	2	2	2	2			2
TCE	3	3		3	3	3			3
<b>Subtotal Parcels:</b>	<b>10</b>	<b>7</b>	<b>3</b>	<b>7</b>	<b>6</b>	<b>5</b>		<b>1</b>	<b>6</b>
<b>Total Harbor Subdivision Parcels</b>	<b>46</b>	<b>40</b>	<b>6</b>	<b>42</b>	<b>40</b>	<b>21</b>	<b>19</b>	<b>13</b>	<b>38</b>
<b>Total CR/HS Parcels:</b>	<b>79</b>	<b>71</b>	<b>8</b>	<b>74</b>	<b>72</b>	<b>33</b>	<b>38</b>	<b>25</b>	<b>68</b>
<i>Southwestern Yard</i>									
Full Takes	8	8		8	8	4	4	7	8
Part Takes									
TCE									
<b>Subtotal Parcels:</b>	<b>8</b>	<b>8</b>		<b>8</b>	<b>8</b>	<b>4</b>	<b>4</b>	<b>7</b>	<b>8</b>
<b>Total SW Parcels:</b>	<b>8</b>	<b>8</b>		<b>8</b>	<b>8</b>	<b>4</b>	<b>4</b>	<b>7</b>	<b>8</b>
<b>Total Project Parcels</b>	<b>87</b>	<b>79</b>	<b>8</b>	<b>82</b>	<b>80</b>	<b>37</b>	<b>42</b>	<b>32</b>	<b>76</b>

- All parcels necessary to construct the guideway have been turned over to the Contractor.
- Work requiring the remaining parcels is not on the critical path and will be used to construct ADA, sidewalk, and other civil improvements.
- Efforts continue to closeout court cases on the various condemned properties.

## **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.
- *Reviewed submittals for WSCC surveillances.*
- *ConAd issued a Job Memorandum for concrete sidewalk construction in Segment B2 which has lifted resulting in a tripping hazard. Panels will be removed and replaced.*

## **ENVIRONMENTAL STATUS**

### **C0988 Crenshaw/LAX Transit Corridor Design Build**

- Reviewed and commented on the following Contractor Submittals:
  - Weekly Noise and Vibration Monitoring Data for station and alignment construction
  - Green Construction Policy Monthly Report
  - Weekly Storm Water Pollution Prevent Plan (SWPPP) inspection reports
  - Weekly Fugitive Dust Inspection Reports
  - Various Construction Work Plans and Submittals
- Conducted Contractor Cultural Awareness Training.
- Coordinated cultural monitoring (Archaeological, Paleontological and Native American Monitoring).
- Conducted abatement stabilization of lead based paint coated steel beams on 7/03 and 7/05.
- *Conducted night time noise monitoring at Arbor Vitae at-grade crossing duct bank work on 7/03 and 7/05.*
- *Conducted nighttime noise monitoring at Slauson/Crenshaw for gas line relocation on 7/12.*
- *Conducted nighttime noise monitoring at I-405 falsework removal operations on 7/27.*

### **C0991 Southwestern Yard Design Build**

- *Treated Wood Waste (TWW) was encountered on 7/5. Aggregate and soil samples were collected on 7/10. On 7/18 the samples returned as showing the soil surrounding the TWW as California Hazardous Waste and the ballast as Non-Hazardous Waste. The California Hazardous Waste (soil) was properly transported to Clean Harbors Buttonwillow on 8/3. The Ballast and TWW were properly transported to Chiquita Canyon Landfill on 8/3.*
- *A 6" asbestos pipe was found on 7/19 running parallel to the west side of the old Bellanca road. An additional 6" asbestos pipe was found on 7/25 during the removal of an unknown Bell vault. A Procedure 5 notification, work plan, and emergency notification was submitted to AQMD and approval was granted on 7/25. All known asbestos pipe was removed by 7/31 and was properly disposed of.*

## **CONSTRUCTION RELATIONS STATUS**

- *Outreach on the remediation of soil contamination at the Hi Tech Cleaners site will be led by the Department of Toxic Substances (DTSC) in late August.*
- *Continued to work with LADOT on red curb striping issues near Dulan's Restaurant.*
- *Held a Construction Update Community Meeting on July 26<sup>th</sup>.*

## **SYSTEMWIDE DESIGN AND ART PROGRAM STATUS**

- *Hosted a Metro Art Presents performance by project area dancer including a special invitation for a meet and greet with the artist for the Crenshaw/LAX Transit Leadership Council.*
- *Delivered original artwork designs to Design Builder for fabrication by specialized fabricators.*
- *Continued to review and respond to submittals.*
- *Facilitated coordination between artists and fabrication firms.*

## **SAFETY & SECURITY STATUS**

- Participated in weekly progress meetings with WSCC's Management and Construction Management Team to discuss safety/security/quality related issues and the six-week construction schedule.
- Participated in WSCC's weekly Safety Tool-Box Meetings and Executive Safety and Security Committee Meeting.
- Monitored construction activities on a daily basis including weekends to ensure compliance with contract specifications.
- *Monitored tunnel cross passage, underground stations, I-405 Fwy super structure bridge stripping/forms (HDPE-Membrane), waterproofing at UG3 grade crossings, SWY Division 16, excavations, site preparation, steel erection and track-installation along the alignment.*
- *Conducted Monthly All Hands Safety and Security Meeting for July 2017.*
- Contract C0990 Metro Builders Advanced Utility Relocation completed 360,287 work hours with four recordable incidents. This contract is closed out.
- *Contract C0991 Hensel Phelps Project-to-Date completed 112,662 work hours. Hensel Phelps and their subcontractors completed 21,042 work-hours with zero recordable incidents for the month of July 2017.*
- *Contract C0988 (WSCC) completed 161,880 work hours with one recordable injury for the month of July 2017. Total Project-to-Date work hours are 4,641,657 with a total of sixty-six recordable incidents. The project Recordable Rate is 2.8. The Bureau of Labor Statistics (BLS) average recordable rate per 200,000 work-hours is 2.8.*

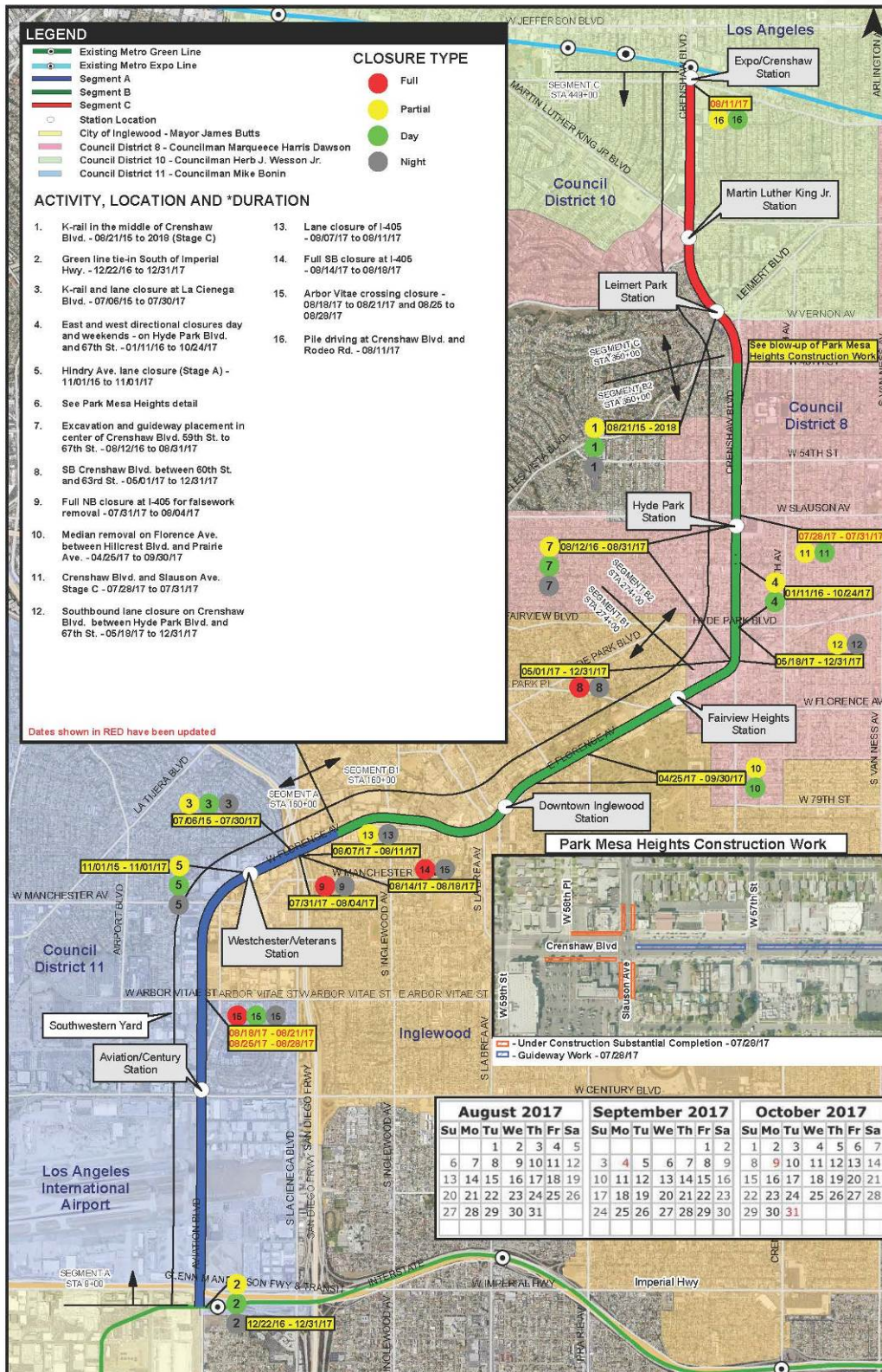
**THIRD PARTY AGREEMENT STATUS**

<b>Third Party</b>	<b>Type of Agreement</b>	<b>Forecast Execution Date</b>	<b>Required Need Date</b>	<b>Status/ Comments</b>
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 48<sup>th</sup> St. to 59<sup>th</sup> St.
- Metro attended the Prehearing regarding the petition on May 24, 2016.
- The scoping document (Ruling) was issued on July 1, 2016 by the Administrative Law Judge Scoping which set forth the procedural schedule and address the scope of the proceeding.
- Metro filed a brief on August 5, 2016 and a Reply Brief on August 15, 2016.
- Administrative Law Judge is reviewing the submitted Briefs and will issue a Proposed Decision.

## Crenshaw/LAX Transit Corridor Project Traffic Closure Key Map - August - October 2017



Updated : 09/02/2017

\*Note: Traffic closure dates and duration are subjected to change

## **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.



### **CHRONOLOGY OF EVENTS (Continued)**

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.


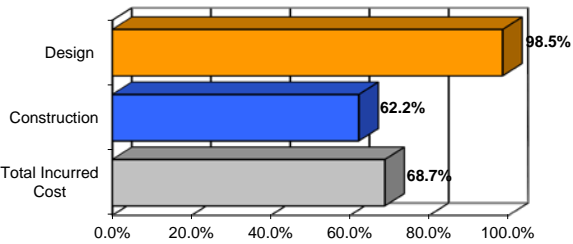
### **CHRONOLOGY OF EVENTS (Continued)**

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.


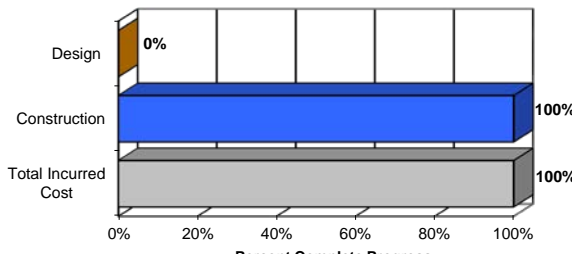
### **CHRONOLOGY OF EVENTS (Continued)**

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 <sup>th</sup> 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).
October 20,2016	The southbound tunnel boring machine completed mining with the hole thru at Leimert Park Station.
April 6, 2017	The northbound tunnel boring machine completed mining with the hole thru at Leimert Park Station.


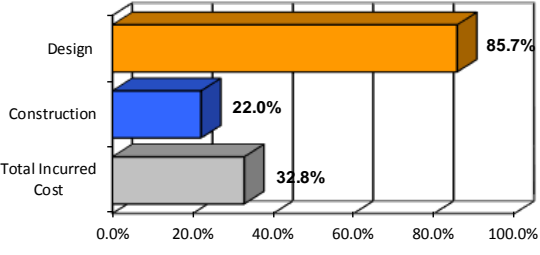
**CONTRACT C0988 STATUS**  
*Crenshaw/LAX Transit Corridor*

<p><b>PE Design Contractor: Hatch Mott (HM)</b> <b>CM Consultant: Stantec</b> <b>Contractor: - Walsh Shea Corridor Constructors (WSCC)</b></p>	<p><b>Contract No.: C0988</b> <b>Status as of July 29, 2017</b></p> 																																								
<p><b>Progress/Work Completed:</b> <b>Construction</b></p> <ul style="list-style-type: none"> <li>Continued north bound tunnel concrete placement.</li> <li>Continued twin tunnel cross passage excavation and concrete work.</li> <li>Continued wall and concourse concrete placements at Expo, MLK Jr and Leimert Park stations.</li> <li>Continued invert placements at underground structures #3 and # 4.</li> <li>Continued civil construction work within Park Mesa Heights area.</li> <li>Continued accommodations for future 96th Street Station.</li> <li>Continued finishing work for Green line tie-in structure.</li> <li>WSCC turned over the remaining yard area to Southwestern Yard contractor.</li> </ul>	<p><b>Areas of Concern:</b></p> <ul style="list-style-type: none"> <li>Timely submittal of WSCC's design submittals and review by City of Los Angeles.</li> <li>WSCC's ability to mitigate potential schedule delay to their substantial completion milestone or May 1, 2019.</li> </ul>																																								
<p><b>Schedule Assessment:</b></p> <ul style="list-style-type: none"> <li>WSCC's July 2017 schedule update reflects a eleven day delay to Milestone 1. WSCC is looking at several options to mitigate the forecast delay.</li> <li>Metro's assessment is that WSCC is responsible to mitigate the eleven days.</li> </ul>	<p><b>Cost Assessment:</b></p> <ul style="list-style-type: none"> <li>The current construction contract cost forecast is \$1,381,005,727.46 and is within the Board authorized budget.</li> <li>The Contractor submitted their 48th payment application in the approved amount of \$19,414,624.97</li> </ul> <p>* Please note that not all executed modifications may have been included in the Contractor current payment application.</p>																																								
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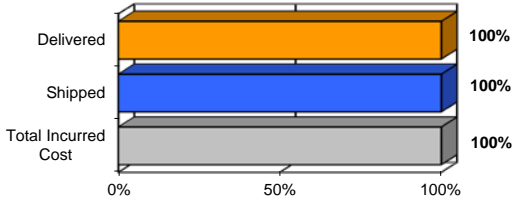
**CONTRACT C0990 STATUS**  
*Crenshaw/LAX Advanced Utility Relocations*

<p><b>PE Design Contractor: Hatch Mott (HM)</b> <b>CM Consultant: Stantec</b> <b>Contractor: - Metro Builders and Engineers Group LTD</b></p>	<p><b>Contract No.: C0990</b> <b>Status: Completed</b></p> 																																			
<p><b>Progress/Work Completed:</b> - The construction was substantially completed on August 21, 2014 - Board authorized in March a settlement with the contractor. - Contract is closed out.</p>	<p><b>Areas of Concern:</b></p>																																			
<p><b>Schedule Assessment:</b> - Metro granted substantial completion to Metro Builders on August 21, 2014, which is 276 calendar days behind. - The settlement with the contractor settled all time issues.</p>	<p><b>Cost Assessment:</b> - The final contract is \$11,316,140.00 and has been completely paid to contractor.  * A modification in process for credit of unused provisional sums in the amount of \$123,156.85.</p>																																			
<p><b>Schedule Summary:</b></p> <table border="0"> <tr> <td>1. Date of Award:</td> <td align="right">05/30/12</td> </tr> <tr> <td>2. Notice to Proceed:</td> <td align="right">07/17/12</td> </tr> <tr> <td>3. Original Substantial Completion Duration:</td> <td align="right">365</td> </tr> <tr> <td>4. Current Substantial Completion Duration:</td> <td align="right">468</td> </tr> <tr> <td>5. Elapsed Time from NTP:</td> <td align="right">753</td> </tr> </table>	1. Date of Award:	05/30/12	2. Notice to Proceed:	07/17/12	3. Original Substantial Completion Duration:	365	4. Current Substantial Completion Duration:	468	5. Elapsed Time from NTP:	753	<p><b>Cost Summary:</b> <span style="float: right;"><b>\$ In millions</b></span></p> <table border="0"> <tr> <td>1. Award Value:</td> <td align="right">7.83</td> </tr> <tr> <td>2. Executed Modifications:*</td> <td align="right">3.49</td> </tr> <tr> <td>3. Approved Change Orders:</td> <td align="right">-</td> </tr> <tr> <td>4. Current Contract Value (1 + 2 + 3):</td> <td align="right">11.32</td> </tr> <tr> <td>5. Incurred Cost:</td> <td align="right">11.32</td> </tr> </table>	1. Award Value:	7.83	2. Executed Modifications:*	3.49	3. Approved Change Orders:	-	4. Current Contract Value (1 + 2 + 3):	11.32	5. Incurred Cost:	11.32															
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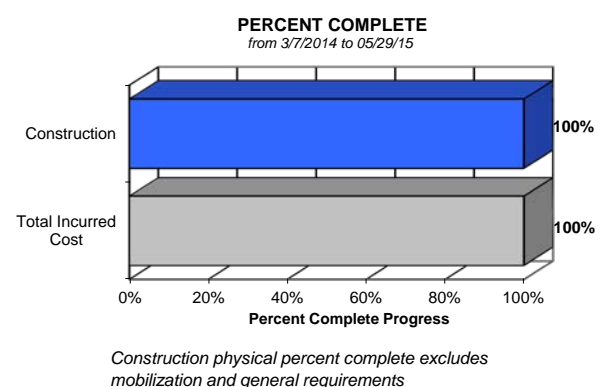
**CONTRACT C0991 STATUS**  
*Southwestern Yard*

<p><b>PE Design Contractor: Hatch Mott (HM)</b> <b>CM Consultant: Stantec</b> <b>Contractor: - Hensel Phelps / Herzog JV</b></p>	<p><b>Contract No.: C0991</b></p> <p><b>Status as of July 29, 2017</b></p> 																									
<p><b>Progress/Work Completed:</b></p> <ul style="list-style-type: none"> <li>Continued main shop pits and SOG construction following steel erection.</li> <li>NTP/MOD was issued for LAWA-CIDH piles/columns on March 1, 2017.</li> <li>Major equipment and material fabrication started in March 2017 and continued (Structural Steel, Tumtables, Wheel Lathes and Hoists), steel is being delivered and installed.</li> <li>Continued with electrical and communication duct banks, dry wells, oil clarifiers and fire risers.</li> <li>Completed material storage building foundations and placed slab on grade.</li> <li>Phase II site grading is substantially complete.</li> </ul>	<p><b>Areas of Concern:</b></p> <ul style="list-style-type: none"> <li>There are no major areas of concern at this time.</li> </ul>																									
<p><b>Schedule Assessment:</b></p> <ul style="list-style-type: none"> <li>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.</li> <li>HPH is using an earlier phase 2 access to establish a re-baseline schedule to complete the SWY two months ahead of contract requirement.</li> <li>A re-baseline schedule was submitted and accepted by Metro.</li> <li>Work is progressing ahead of schedule.</li> <li>All phase II access dates were achieved ahead of time.</li> <li>Coordination effort between HPH &amp; WSCC continuing.</li> <li>HPH has stated that there is a potential for them to complete early by 11/26/2018.</li> </ul>	<p><b>Cost Assessment:</b></p> <ul style="list-style-type: none"> <li>The current construction contract cost forecast is \$174,245,342.69 is within the Board authorized budget.</li> <li>The Contractor submitted their 24th payment application in the approved amount of \$7,009,006.70</li> <li>Please note that not all executed modifications may have been included in the Contractor current payment application.</li> </ul>																									
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**CONTRACT C0992 STATUS**  
*Concrete Ties*

<p><b>PE Design Contractor:</b> Hatch Mott (HM) <b>CM Consultant:</b> Stantec <b>Contractor:</b> Rocla Concrete Tie Inc.</p>	<p><b>Contract No.:</b> C0992  <b>Status:</b> Completed</p>																																								
<p><b>Progress/Work Completed:</b> - All 19,936 concrete ties have been received onsite by the design-builder (Contract C0988). - Contract is closed out.</p>	<p><b>Areas of Concern:</b></p>																																								
<p><b>Schedule Assessment:</b> All concrete ties were delivered to job site by August 15, 2014.</p>	<p><b>Cost Assessment:</b> The final contract cost is \$2.25 million and has been completely paid to contractor.</p>																																								
<p><b>Schedule Summary:</b></p> <table border="0"> <tr><td>1. Date of Award:</td><td align="right">12/10/13</td></tr> <tr><td>2. Notice to Proceed:</td><td align="right">12/23/13</td></tr> <tr><td>3. Original Substantial Completion Duration:</td><td align="right">220</td></tr> <tr><td>4. Current Substantial Completion Duration:</td><td align="right">235</td></tr> <tr><td>5. Elapsed Time from NTP:</td><td align="right">235</td></tr> </table>	1. Date of Award:	12/10/13	2. Notice to Proceed:	12/23/13	3. Original Substantial Completion Duration:	220	4. Current Substantial Completion Duration:	235	5. Elapsed Time from NTP:	235	<p><b>Cost Summary:</b> <span style="float:right"><b>\$ In millions</b></span></p> <table border="0"> <tr><td>1. Award Value:</td><td align="right">2.16</td></tr> <tr><td>2. Executed Modifications:</td><td align="right">0.09</td></tr> <tr><td>3. Approved Change Orders:</td><td></td></tr> <tr><td>4. Current Contract Value (1 + 2 + 3):</td><td align="right">- 2.25</td></tr> <tr><td>5. Incurred Cost:</td><td align="right">2.25</td></tr> </table>	1. Award Value:	2.16	2. Executed Modifications:	0.09	3. Approved Change Orders:		4. Current Contract Value (1 + 2 + 3):	- 2.25	5. Incurred Cost:	2.25																				
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**CONTRACT C0992A STATUS**  
*Running Rail and Bumping Posts*

<p><b>PE Design Contractor: Hatch Mott (HM)</b> <b>CM Consultant: Stantec</b> <b>Contractor: LB Foster Rail Technology Corp</b></p>	<p><b>Contract No.: C0992A</b> <b>Status: Completed</b></p>																																									
<p><b>Progress/Work Completed:</b> - All 115RE SS Blank Stick Rails have been delivered to the job site. - All 115RE HH rail have been delivered to job site. - All Bumping Posts have been delivered to job site on 5/8/2015. - Contract is closed out.</p>	<p><b>Areas of Concern:</b> .</p>																																									
<p><b>Schedule Assessment:</b> All running rails and bumping posts were delivered ahead of the schedule.</p>	<p><b>Cost Assessment:</b> The final contract cost is \$5,2 million and has been completely paid to contractor.</p>																																									
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## CONSTRUCTION PHOTOGRAPHS



UG#1 - Bottom-up plinth construction nearing completion at UG1.



UG1 - Forming plinths.

## CONSTRUCTION PHOTOGRAPHS (Continued)



**AVIATION/CENTURY BRIDGE** – Construction of the plaza level service building walls, station elevator shaft and emergency stairway wall underway.

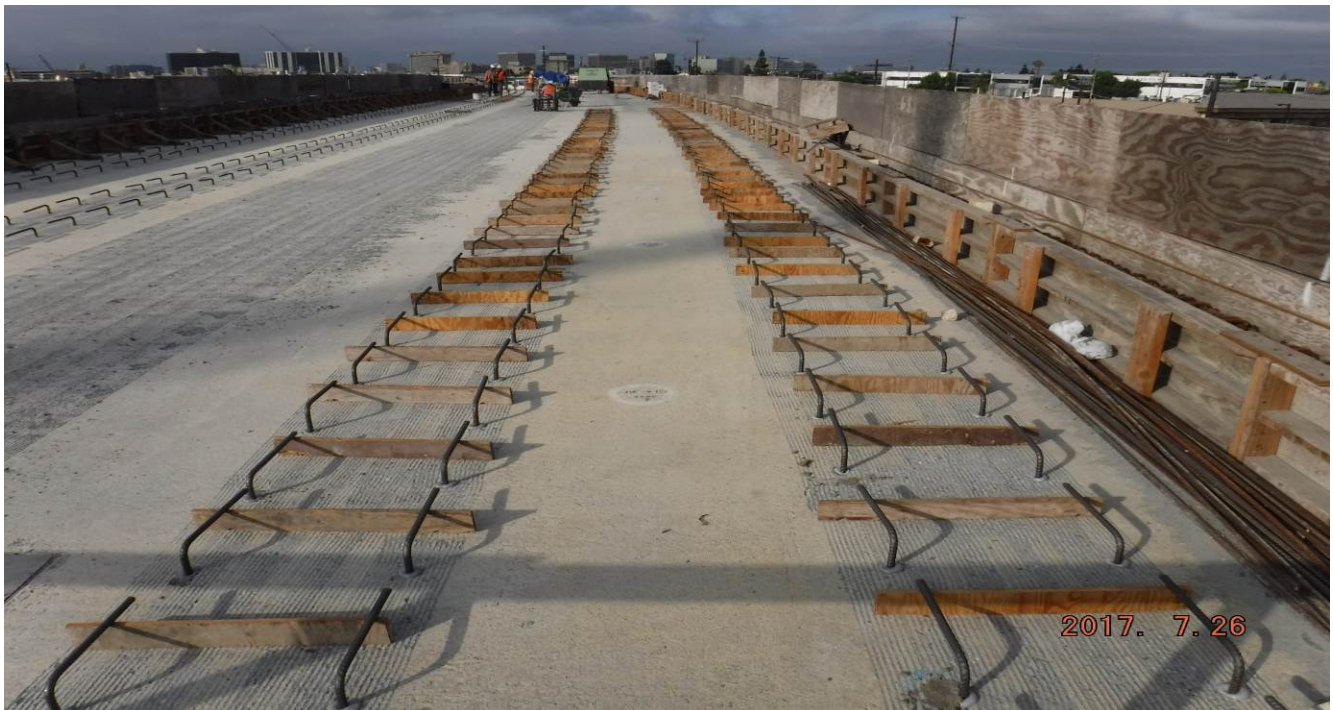


**ARBOR VITAE GRADE CROSSING** – Mainline ductbank excavation underway.

## CONSTRUCTION PHOTOGRAPHS (Continued)



**A1 GUIDEWAY-** SB ballast wall construction underway for the north yard lead directly south of Arbor Vitae.



**(AG-4) MANCHESTER BRIDGE** – Bridge superstructure complete with the exception of the parapet curbs. Crews worked on bonding plinth rebar dowels into the bridge deck.

## CONSTRUCTION PHOTOGRAPHS (Continued)



**WESTCHESTER STATION** – Crews continued exterior concrete finish work along the north bound station platform stem walls. Crews continued installing reinforcement and formwork for the south bound platform stem walls and center overhang.



**(AG-5) I-405 BRIDGE-** Crews finished removing falsework from spans 1, 3 and 4. Crews continued stripping formwork and finish work along the exterior girder stems. Falsework removal from span 2 (over the I-405) will be completed under nightly freeway lane closures from 7/31 through 8/18.

## CONSTRUCTION PHOTOGRAPHS (Continued)



**MSE 192** - Wall complete, ballasted trackwork in-place (surface & line and de-stressing complete).



**LA BREA AT GRADE STATION** - Canopy frame erection underway.

## CONSTRUCTION PHOTOGRAPHS (Continued)



**B1 GUIDEWAY** – Between La Brea station and Centinela Ave.



**WEST STATION**- HDPE installation and backfill adjacent to the west platform walls complete. Crews installed the mainline ductbank along the eastern perimeter of the center platform.

**CONSTRUCTION PHOTOGRAPHS (Continued)**



**UG#3** - Installation of rebar for Center Wall (CW) sections 21 and 22.



**UG#3** - Preparing for invert placement at section P-44.

**CONSTRUCTION PHOTOGRAPHS (Continued)**



**HYDE PARK STATION-** Installation of formwork for walls at TC&C room. **\_PARK MESA-** Placement of asphalt south of Slauson Ave.



**PARK MESA** – Installation of formwork for ballast wall between 50th St. and 52nd St.



**CONSTRUCTION PHOTOGRAPHS (Continued)**



**UG4 – Fabrication of Center Wall formwork.**

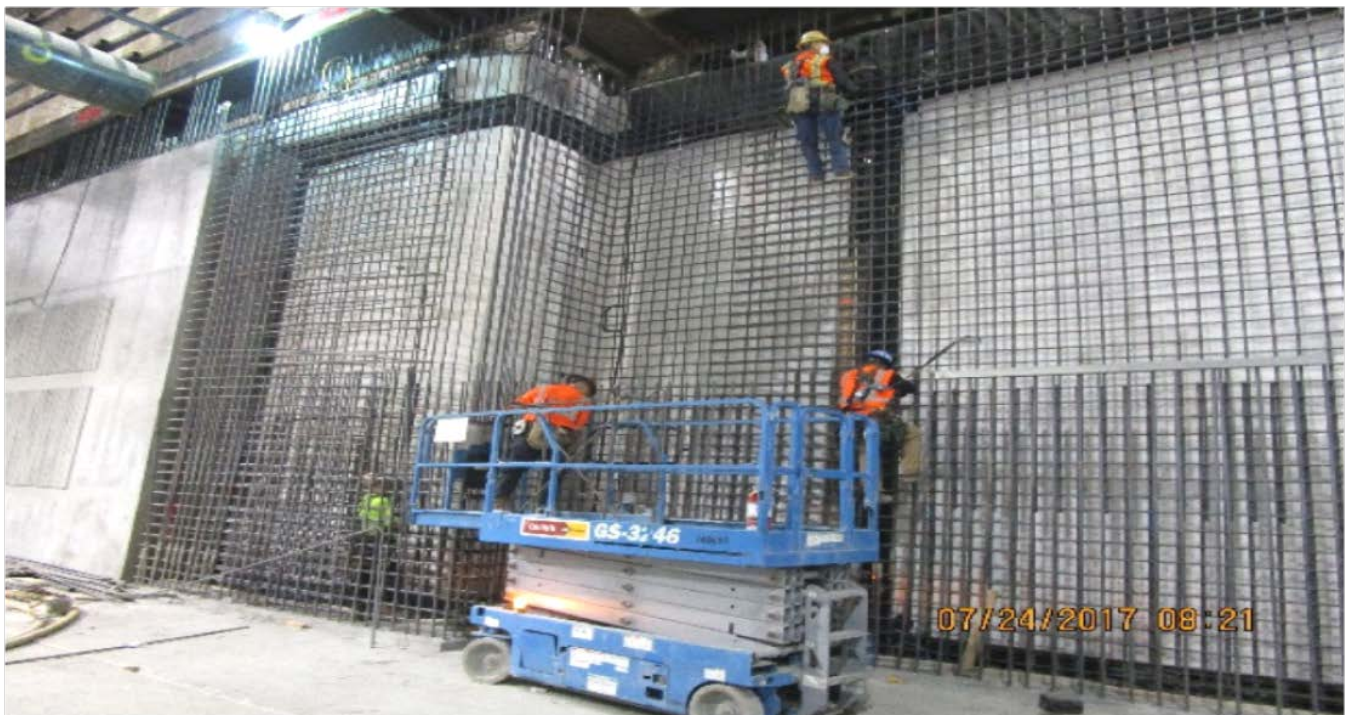


**LEIMERT PARK STATION - Completed placement of west concourse level sand wall.**

## CONSTRUCTION PHOTOGRAPHS (Continued)



**LEIMERT PARK STATION** – Excavating at side structure for installation of utilities.



**MARTIN LUTHER KING JR. STATION** – Installation of formwork and rebar for invert level walls.

## CONSTRUCTION PHOTOGRAPHS (Continued)



**MARTIN LUTHER KING JR. STATION** - Completed placement of final invert section S-1.



**EXPOSITION/CRENSHAW STATION** – Installation of formwork, rebar, and electrical components for Concourse Slab Phase 3.

**CONSTRUCTION PHOTOGRAPHS (Continued)**



**TUNNELING** – Placement of SB Tunnel Walkway section 7a.

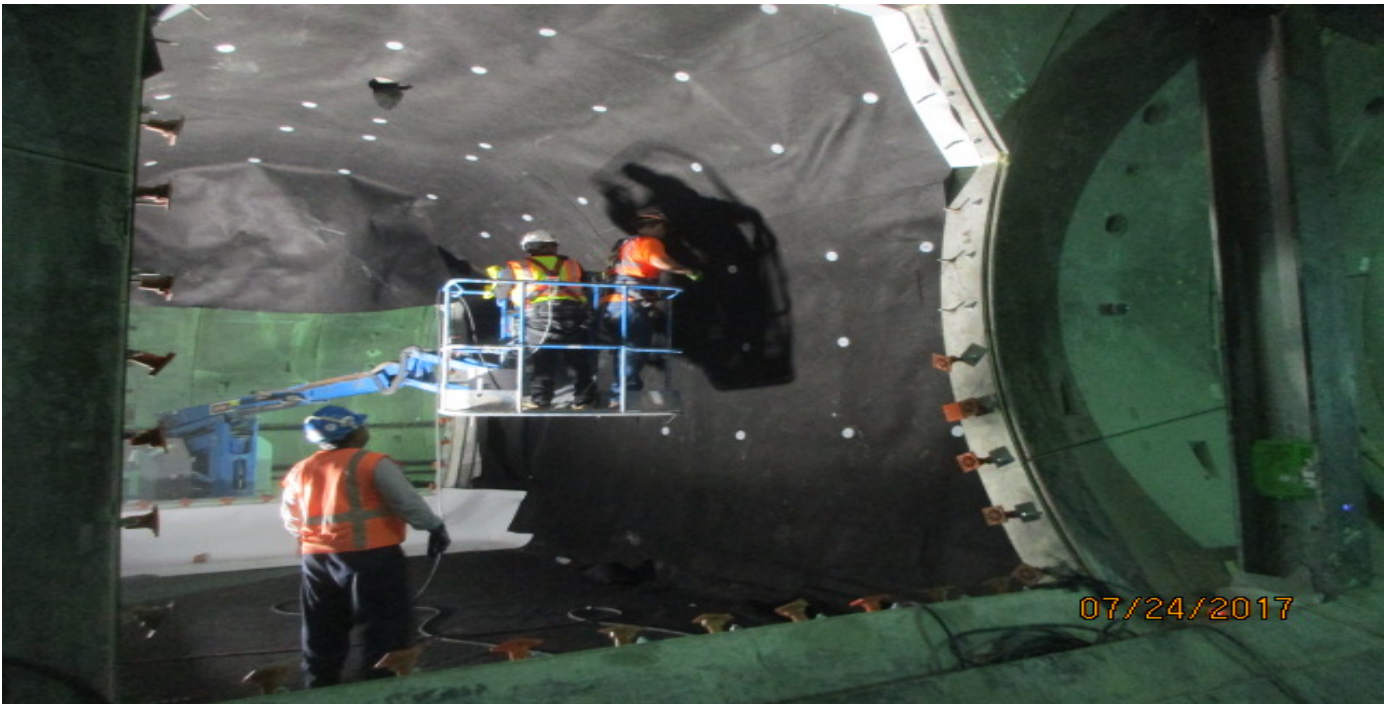


**TUNNELING** – Preparing for placement of SB Tunnel Walkway section 7a.

**CONSTRUCTION PHOTOGRAPHS (Continued)**



**TUNNELING** – Cross Passage #3 ready for waterproofing.



**TUNNELING** – Installing waterproofing at Cross Passage #4.

**APPENDIX**

**PROJECT COST STATUS – SOUTHWESTERN YARD**

SCC CODE	DESCRIPTION	ORIGINAL BUDGET	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		FORECAST VARIANCE
			PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
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	84,976,970	2,568,803	14,010,353	0	85,333,806	143,807
40	SITWORK/SPECIAL CONDITIONS	35,932,000	0	38,273,000	0	38,776,849	1,197,113	23,762,987	526,404	39,005,140	732,140
50	SYSTEMS	25,784,616	0	32,991,000	0	32,991,000	347,300	4,941,250	0	32,991,000	0
	(10-50) CONSTRUCTION	147,263,451	0	156,453,999	0	156,744,819	4,113,215	42,714,590	526,404	157,329,947	875,947
60	RIGHT-OF-WAY	99,910,000	0	100,000,000	0	102,474,206	0	102,418,610	0	102,420,624	2,420,623
70	VEHICLES	0	0	0	0	0	0	0	0	0	0
80	PROFESSIONAL SERVICES	35,601,095	0	33,639,631	(167,494)	29,836,864	705,948	24,456,738	459,604	35,354,199	1,714,568
90	PROJECT CONTINGENCY	13,659,732	0	17,106,370	0	0	0	0	(986,008)	12,095,231	(5,011,139)
	<b>TOTAL</b>	<b>296,434,278</b>	<b>0</b>	<b>307,200,000</b>	<b>(167,494)</b>	<b>289,055,889</b>	<b>4,819,164</b>	<b>169,589,938</b>	<b>(0)</b>	<b>307,200,000</b>	<b>(0)</b>

**C0991 PAINT & BODY SHOP PROJECT**

DESCRIPTION	ORIGINAL BUDGET	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		FORECAST VARIANCE
		PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
861301 DIV 22 PAINT & BODY SHOP	11,000,000	0	11,000,000	11,992	9,474,464	11,992	2,695,339	0	11,000,000	0

<b>GRAND TOTAL</b>	<b>307,434,278</b>	<b>0</b>	<b>318,200,000</b>	<b>(155,502)</b>	<b>298,530,352</b>	<b>4,831,155</b>	<b>172,285,277</b>	<b>(0)</b>	<b>318,200,000</b>	<b>(0)</b>
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NOTE: EXPENDITURES ARE CUMULATIVE THROUGH JULY 29, 2017.

**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 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 LOP 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 budget is \$318.2 million.

## **APPENDIX PROJECT COST ANALYSIS (Continued)**

**Current Forecast:** The forecast is under review.

**Commitments:**

The commitments are cumulative through July 29, 2017.

Total commitments decreased by \$0.16 million for this period due to the following:

- SCC-30
  - No change to report.
- SCC-40
  - No change to report.
- SCC-50
  - No change to report.
- SCC-60
  - No change to report.
- SCC-80
  - Professional services such as legal, construction management, and labor commitment decreased by \$0.16 million due to FIS adjustments.

The \$298.53 million in commitments to date represents 93.8% of the current budget.

**Expenditures:**

The expenditures are cumulative through July 29, 2017.

The total expenditures increased by \$4.83 million for this period due to the following:

- SCC-30
  - Hensel Phelps/Herzog JV expenditure increase by \$2.57 million.
- SCC-40
  - Hensel Phelps/Herzog JV expenditure increased by \$1.2 million.
- SCC-50
  - Hensel Phelps/Herzog JV expenditure increase by \$0.35 million.
- SCC-60
  - No change to Right-of-Way expenditure.
- SCC-80
  - Hensel Phelps/Herzog JV, agency expenditure and professional services expenditure increase by \$0.71 million.

The \$172.29 million in expenditures to date represents 54.1% 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.
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 SERVICES	Includes design engineering, project management assistance, 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.