Crenshaw/LAX Transit Project



CRENSHAW/LAX TRANSIT PROJECT

MONTHLY PROJECT STATUS REPORT

THE PREPARATION OF THIS DOCUMENT HAS BEEN FINANCED IN PART THROUGH A GRANT FROM THE U. S. DEPARTMENT OF TRANSPORTATION, FEDERAL TRANSIT ADMINISTRATION (FTA).

FEBRUARY 2018

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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 engineering in support of construction.

Construction efforts by the design-builder continued along all areas of the alignment. Underground work continues at the north end of the project. The contractor has substantially completed the twin tunnels. The three underground stations remain at various levels of completion with work continuing on wall, roof, and entrance concrete placements.

Three of the four at-grade stations structure concrete placements are substantially completed with canopy, entrance, and finish work underway. The aerial station structure concrete placement is substantially complete with canopy installed and entrance and finish work underway.

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 Park 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. Work has been completed on the mechanically stabilized earth (MSE) walls and continues for right-of-way at-grade work. Various construction efforts continue on the roadway section 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 six 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. Design and engineering is continuing in support of construction.

PROJECT OVERVIEW (Continued)

The contractor has completed the main shop slab on grade, metal decking installation, and CMU walls, and is continuing with closing the exterior of the building and roof construction. Installation of exterior/interior framing, sheeting, drywall, electrical, mechanical, plumbing, sewer connection, fire line and roof drain line activities continues in the main shop. Started installation of roof equipment, car hoists, and 15-ton crane in the main shop. The slab on grade was placed, structural steel erected, roofing and CMU wall constructed within the material storage building ready for exterior skin installation. Construction continued on the car wash and car cleaning footings, grade beams, underground conduits and piping, pit construction and installation of the carwash prefabricated structure. Construction of the paint and body shop continued with ductbank, conduits, underground piping, and excavation of footings. In the yard area, construction continued with train control, communication, TPSS ductbank, underground utilities, overhead catenary system, and light foundation installations. The installation of the turnouts in the yard and the Main Shop embedded tracks continued and the remaining turnouts were delivered to the site this month. Continued trackwork activities including under drain, sub-ballast, bottom ballast and started storage track installation.

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 January 2018.* 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

PROJECT OVERVIEW (Continued)

from the City of Los Angeles. Metro reached agreement with the City of Los Angeles to cover the incremental cost of the stations above the \$80 million identified in fiscal year 2014 funding which the Metro Board approved in May 2013.

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

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

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

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 February 2018 are \$1,990.8 million or 96.7% of the Current Budget. The project expenditures thru February 2018 are \$1,554.7 million or 75.5% 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

PROJECT OVERVIEW (Continued)

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.

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.

Metro received the January schedule update from WSCC after the close of the reporting period deadline in February 2018. The update forecast a 56-calendar day delay to WSCC's Contract Milestone #1 Substantial Completion date of May 1, 2019. This was an additional 16-calendar days of delay from the December 2017 forecast.

WSCC has not yet submitted a schedule update for the period ending March 2, 2018. Therefore, Metro is showing the 56-calendar day delay to WSCC's Contract Milestone #1 Substantial Completion date of May 1, 2019. Metro has requested WSCC to provide a Schedule Mitigation Plan to mitigate the 56 days of delay.

MANAGEMENT ISSUES

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

<u>Status/Action</u> There are a few remaining final design submittals that are required to be submitted by the Contractor for City of Los Angeles review. Metro 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

<u>Status/Action</u> WSCC submitted a "Completion Schedule" which was subsequently reviewed and approved by Metro on December 16, 2016. This schedule represents a rebaseling 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.

Metro received the January schedule update from WSCC after the close of the reporting period deadline in February 2018. The update forecast a 56-calendar day delay to WSCC's Contract Milestone #1 Substantial Completion date of May 1, 2019. This was an additional 16-calendar days of delay from the December 2017 forecast.

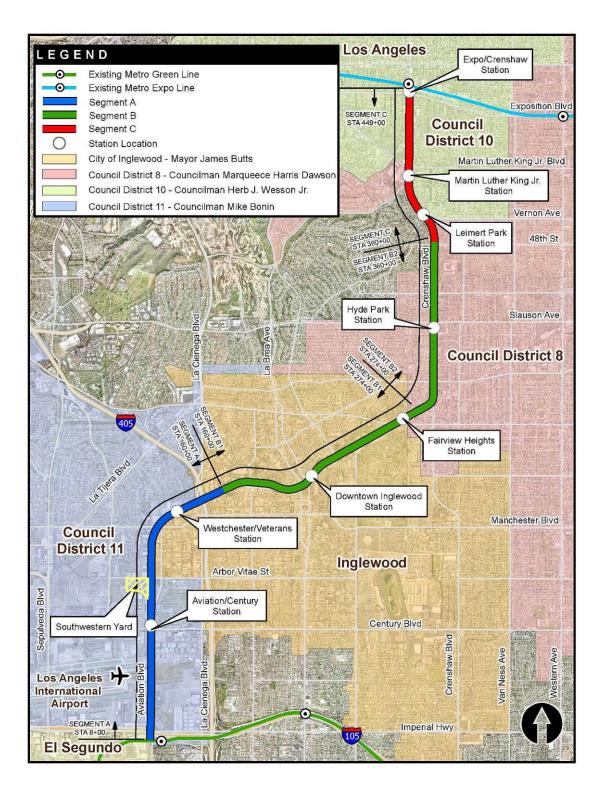
WSCC has not yet submitted a schedule update for the period ending March 2, 2018. Therefore, Metro is showing the 56-calendar day delay to WSCC's Contract Milestone #1 Substantial Completion date of May 1, 2019. Metro has requested WSCC to provide a Schedule Mitigation Plan to mitigate the 56 days of delay.

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 continues to evaluate the potential uses of the remaining unallocated contingency. There was a re-allocation of expenditures and forecast costs in October 2017 for local and non-federal activities which are reported below the line. This month, additional costs have been included below the line. As part of Metro's fiscal year budgeting process a new internal Metro project, "Crenshaw/LAX Locally Funded Activities" for tracking these costs will be active commencing in July 2018.

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 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	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-1
988-CT-33000	Turnover to Track (sta. 9+00 to 16+64) - Aerial Structure #1	27-Dec-17 A	4					
988-CT-23700	Turnover to Track - 111th St Bridge	10-Jan-18 A	4					
988-CT-84975	Bridge Emergency Walkway - Aviation / Century Bridge	25-Jan-18 A	4					
988-IFC-TCC02	I-Face: TC&C Room Ready for systems @ A02 Aviation/Century TC&C #3	05-Feb-18		4				
988-TW-1400	Destress DF Track - STA 27+15 to 28+20 - 111th St. Bridge - Seg. A	07-Feb-18		4				
988-IFC-ATC01	I-Face: Track Complete @ A01 (6+00 to 43+50)	08-Feb-18		4				
988-CT-5659	Ductbank - Manhole / Vault / Pad / Pull Box - TPSS-07/ Aux. Power (Future)	13-Feb-18		4				
988-CT-69535	F/R/P Columns Sequence 3 - MLK	15-Feb-18		4				
988-SCE-T1050	TPSS-01 Permanent Power Drop - SCE - Procurement of Cable and Equipmen	22-Feb-18		4				
988-TW-2100	Construct Ballasted Track - Arbor Rail Pile STA 103+50 to 118+58 Manchester - Seg. A	01-Mar-18			4			
988-MOD-2780	TPSS No.2 Upgrade from 1.5 MW to 2.0 MW	02-Mar-18						
991-APM1120	Metro LAWA Final Acceptance	09-Mar-18			\triangle			
988-SCE-T1170	TPSS-03 Permanent Power Drop - SCE - Utility Install Infrastructure and conduit	15-Mar-18			4			
991-TW-30160	Construct Turnouts TO-43	21-Mar-18			\triangle			
988-ATC-03300	Rough-In for Wayside Equipment @ A03 (85+90 to 130+00)	28-Mar-18						
988-ATC-01400	Install ATC Local Cable @ TC&C #1	03-Apr-18				4		
988-TW-9683	Construct Ballasted Track - STA 256+09 to 274+25 (High to Brynhurst)	16-Apr-18				4		
988-ATC-02750	Ground Bonds & Signals @ A02 (43+50 to 85+90)	18-Apr-18				4		
988-ATC-TIA5-3000	96th Street - Additional ATC Local Cable at TC&C #3	26-Apr-18				4		
988-CT-89148	Escalator Finishes - Aviation / Century	30-Apr-18				4		
988-MOD-3180	Deluge System at Expo Crossover	03-May-18					4	
988-ATC-03400	Install ATC Local Cable @ TC #4	08-May-18						
988-CT-50980	Turnover to Track - U-Trench #3	14-May-18						
988-CT-91808	Erect Elevator 1 & 2 Framing - Plaza - Expo	21-May-18					4	
988-FAT-01A50	ATC: Field Acceptance Testing @ Aviation TC&C #1 Continental (6+00 to 43+50)	15-Jun-18						4
988-CT-9189	Backup Power (TPSS) - TPSS-04	25-Jun-18						4
988-TW-4023	Destress DF Track - STA 274+25 to 316+66 (Underground #3) - Seg. B2	26-Mar-18						Ŧ
991-CON-25575	Architect and Engineer Punchlist - Control Tower - Main Shop	27-Jun-18						\wedge

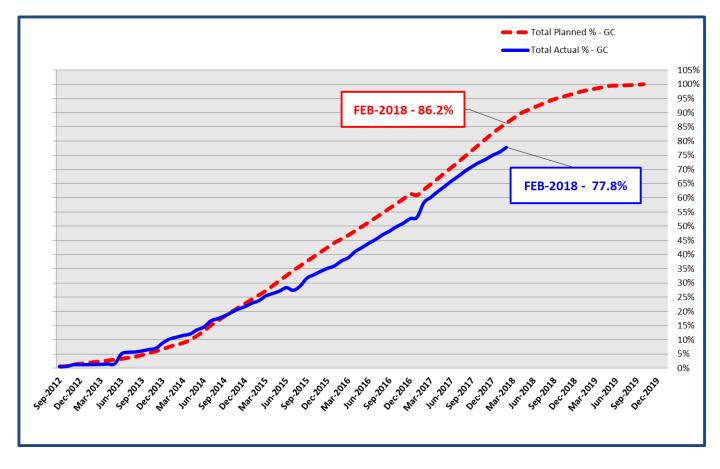
	0	Crenshaw-WBS Summary (MPSR)	ımmary (MPSR)	Data Date: 03-IMar-10
tch/dy ID Activity Name	Start	rish T	2013 2010 2011 2012 2013 2	2009 2010 2017 2012 2013 2014 2015 2017 2018 2019 202
Crenshaw/LAX Transit Corridor - Master Schedule Janua 2:	23-Jun-09 A	24-Dec-19		
Milestones & Key Dates 19	19-Nov-09 A	24-Dec-19		
	01-Apr-11 A	01-Jul-19		· · · · · · · · · · · · · · · · · · ·
LAX	23-Jun-09 A	24-Dec-19		
C0988 - Pre-Construction Crenshaw/LAX 2:	23-Jun-09 A	19-Mar-18		
Right of Way 0	01-Jan-12 A	08-Nov-16 A		
Design Build Procurement 23	22-Dec-11 A	10-Sep-13 A		
	23-Jun-09 A	19-Mar-18		
C0988 - Construction & Installation	06-Dec-13 A	24-Dec-19		
Stations 00	06-Dec-13 A	01-May-19		
Guidway & Track 0	01-Jul-14 A	06-Feb-19		
System-Wide Components	15-May-18	24-Dec-18		1
Systems 0	01-Jul-14 A	11-Feb-19		
Training	12-Jul-16 A	04-Dec-18		
Testing (05-Feb-18	26-Jun-19		
Start Up	16-May-19	24-Dec-19		
860003 - Southwestern Yard and Paint Body Shop 2	20-Oct-10 A	30-Jan-19		
Milestone 24	29-Jun-15 A	30-Jan-19		
Preliminary Engineering 2	20-Oct-10 A	18-Dec-12 A		
	31-Jan-12 A	31-Oct-17 A		
Design Build Procurement 29	29-Aug-14 A	29-Jun-15 A		
Final Design 24	29-Jun-15 A	11-Jan-17 A		
Construction & Installation 11	10-Jun-14 A	30-Jan-19		

PROJECT SUMMARY SCHEDULE

SCHEDULE MEASUREMENTS

		Change from Last	
	Status	Period	Comment
Current Revenue Service:	10/30/2019	0	
Forecast Revenue Service:	12/24/2019	15	Behind Schedule
TIFIA Revenue Service:	10/30/2019	0	
Final Design Progress:			
Contract C0988	99.0%	0.1%	Behind Schedule
Contract C0990	100%	None	Design Completed
Contract C0991	90.8%	0.8%	On Schedule
Contract C0992	100%	None	Design Completed
Contract C0992A	100%	None	Design Completed
Construction Contracts Progress:			
Contract C0988	71.6%	1.7%	Behind Schedule
Contract C0990	100%	None	Substantially Completed
Contract C0991	55.4%	4.7%	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 77.8% versus a planned progress of 86.2% through February 2018. 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.

The first Option 1 P3010 car was delivered in May 2017. The final P3010 car (22nd car) was delivered in September 2017, completing the Option delivery for the Crenshaw Project. All twenty-two Crenshaw cars are currently in revenue service on the Green and Blue Lines. KinkiSharyo/ASTS still needs to work on the Cutover (revenue service) software development to include Crenshaw's final alignment, track profiles, and berthing locations. Once completed, a series of software validation tests will need to be performed prior to implementation on the P3010s.

Universal Fare System Equipment

A notice-to-proceed was issued on January 30, 2018 to the existing Metro Universal Fare System (UFS) contractor, Cubic Transportation Systems, Inc., to procure UFS equipment for the Crenshaw/LAX Project eight stations. The contractor will commence manufacturing of the equipment and will prepare for the installation of the fare equipment upon station availability. A manufacturing and installation schedule has been submitted by the UFS contractor in February 2018. The design-builder contractor (WSCC) has a Contract Milestone No. 2 "Complete UFS Station Areas" which is planned to be complete by November 1, 2018. The UFS contractor's installation schedule will be coordinated with the availability of each of the stations access areas.

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

Area	Activity ID	Activity Name	Start	Need Date
Overhead Catenary (OCS)	988-PRC-00060	OCS: Purchase/Deliver Hardware & Insulators	04-Jan-17 A	13-Feb-18
Procurement	988-PR-11725360	Procurement/ Materials - Glass Canopy - Hyde Park Station	26-Feb-18	5-Jul-18
Procurement	988-PR-11725357	Procurement/ Materials - Glass Canopy - Fairview Heights Station	26-Feb-18	12-Jun-18
Procurement	988-PR-11725355	Procurement/ Materials - Entrance Canopy - Downtown Inglewood Station	18-Dec-17 A	19-Mar-18
Procurement	988-PR-11725354	Procurement/ Materials - Glass Canopy - Downtown Inglewood Station	18-Dec-17 A	19-Mar-18
Procurement	988-PR-11725351	Procurement/ Materials - Glass Canopy - NB Platform - Westchester/Veterans Station	26-Feb-18	4-May-18
Procurement	988-PR- 0011725337	Procurement/ Materials - Tempered Glass Canopy - Aviation / Century	6-Feb-18	11-Apr-18
Procurement	988-PR-11724229	Structural Steel for Elevators #3 & #4 - Material/Fabrication (Store Off Site) - Expo Station	02-Jan-18 A	30-Mar-18
Procurement	988-PR-11724209	Structural Steel for Elevators #1 & #2 below concourse roof - Material/Fabrication (Store Off Site) - Expo Station	02-Jan-18 A	30-Mar-18
Procurement	988-PR-11724199	Structural Steel for Elevators #1 & #2 above ground - Material/Fabrication (Store Off Site) - Expo Station	02-Jan-18 A	30-Mar-18
Procurement	988-PR-914209	Structural Steel for Elevators #3 & #4 - Material/Fabrication (Store Off Site) - MLK Station	5-Feb-18	11-Jun-18
Procurement	988-PR-11724189	Structural Steel for Elevators #1 & #2 below concourse roof - Material/Fabrication (Store Off Site) - MLK Station	5-Feb-18	2-Jul-18
Procurement	988-PR-222179	Structural Steel for Elevators #3 & #4 - Material/Fabrication (Store Off Site) - Leimert Park Station	5-Feb-18	18-Jun-18
Procurement	988-PR-11724149	Structural Steel for Elevators #1 & #2 below concourse roof - Material/Fabrication (Store Off Site) - Leimert Park Stati	5-Feb-18	10-Jul-18
Procurement	988-PR-0324179	Structural Steel for Elevators #1 & #2 above ground - Material/Fabrication (Store Off Site) - Leimert Park Station	5-Feb-18	10-Jul-18
Procurement - Communication System	988-PRC-C0010	Procure/Deliver CTS Wire & Cable	21-Jun-17 A	24-Apr-18
Procurement - Communication System	988-PRC-C0011	Procure/Deliver Telephone Wire & Cable	21-Jun-17 A	9-May-18

Procurement -	988-PRC-C0012	Procure/Deliver PA/VMS Wire &	21-Jun-17 A	9-May-18
Communication System	900-FIXC-C0012	Cable		9-101ay-10
Procurement -	988-PRC-C0013	Procure/Deliver CCTV Wire &	21-Jun-17 A	9-May-18
Communication		Cable	21 0011 11 / 1	
System				
Procurement -	988-PRC-C0014	Procure/Deliver Radio Wire &	21-Jun-17 A	9-May-18
Communication		Cable		
System				
Procurement -	988-PRC-C0016	Procure/Deliver TVM Wire &	21-Jun-17 A	9-May-18
Communication		Cable	21 0011 11 71	
System				
Procurement -	988-PRC-C0030	Procure Equip. & Components for	21-Jun-17 A	9-May-18
Communication		EMP	21 0011 17 70	
System				
Procurement -	988-PRC-C0055	Procure Equip. & Components for	21-Jun-17 A	9-May-18
Communication	500 1 100 00055	Radio		
System				
Procurement -	988-PRC-C0060	Procure Equip. & Components for	21-Jun-17 A	9-May-18
Communication	300-FING-C0000	SCADA		g-iviay-10
System				
Procurement -	988-PRC-C0065	Procure Equip. & Components for	21-Jun-17 A	9-May-18
	900-PRC-C0000	Seismic Detection	ZI-JUN-17 A	9-1viay-10
Communication		Seismic Delection		
System Procurement -	000 000 00070	Dreaure Fruir & Companyate for	21-Jun-17 A	0. May 10
	988-PRC-C0070	Procure Equip. & Components for	21-Jun-17 A	9-May-18
Communication		Telephone		
System	000 000 000 75		04 1 47 4	0.14. 40
Procurement -	988-PRC-C0075	Procure Equip. & Components for	21-Jun-17 A	9-May-18
Communication		Portal Surveillance		
System			04 1 47 4	0.14. 40
Procurement -	988-PRC-C0008	Procure/Deliver Fire Alarm Wire	21-Jun-17 A	9-May-18
Communication		& Cable		
System			04 1 47 4	0.14. 40
Procurement -	988-PRC-C0009	Procure/Deliver IDS Wire & Cable	21-Jun-17 A	9-May-18
Communication				
System				0.14
Procurement -	988-PRC-C1400	COM: Procure Equip. Complete		9-May-18
Communication				
System	000 000 17/10			00.1.1.40
Procurement -	988-PRC-A7110	ATC: Factory Acceptance Test @	23-Nov-17 A	20-Jul-18
Signal System		MLK TC&C #11 (364+40 to		
01/ (01 11		419+70)		04.1.40
Site/Civil	988-PR-6965	Fab/Procure & Deliver Electrical	01-Feb-17 A	21-Jun-18
		Manholes, Vaults, Pads - Tunnel		
011 /01 11			10.11 10	40 1 1 40
Site/Civil	988-PR-6430	Fab/Procure & Deliver Air	12-Mar-18	10-Jul-18
		Fab/Procure & Deliver Air Handling Units (HVAC)		
Site/Civil Stations	988-PR-6430 988-PR-11725369	Fab/Procure & Deliver Air	12-Mar-18 26-Feb-18	10-Jul-18 17-Apr-18
Stations	988-PR-11725369	Fab/Procure & Deliver Air Handling Units (HVAC) Fabricate Fencing	26-Feb-18	17-Apr-18
		Fab/Procure & Deliver AirHandling Units (HVAC)Fabricate FencingFabricate & Deliver Metal Railings		
Stations Stations	988-PR-11725369 988-PR-30631	Fab/Procure & Deliver AirHandling Units (HVAC)Fabricate FencingFabricate & Deliver Metal Railings- Westchester/ Veterans Station	26-Feb-18 3-Feb-18	17-Apr-18 29-Jul-18
Stations	988-PR-11725369	Fab/Procure & Deliver Air Handling Units (HVAC)Fabricate FencingFabricate & Deliver Metal Railings - Westchester/ Veterans StationFabricate & Deliver Metal Railings	26-Feb-18	17-Apr-18
Stations Stations Stations	988-PR-11725369 988-PR-30631 988-PR-30601	Fab/Procure & Deliver Air Handling Units (HVAC)Fabricate FencingFabricate & Deliver Metal Railings - Westchester/ Veterans StationFabricate & Deliver Metal Railings - Hyde Park Station	26-Feb-18 3-Feb-18 12-Feb-18	17-Apr-18 29-Jul-18 12-Jun-18
Stations Stations	988-PR-11725369 988-PR-30631	Fab/Procure & Deliver Air Handling Units (HVAC)Fabricate FencingFabricate & Deliver Metal Railings - Westchester/ Veterans StationFabricate & Deliver Metal Railings - Hyde Park StationFab/Procure & Deliver Laminated	26-Feb-18 3-Feb-18	17-Apr-18 29-Jul-18
Stations Stations Stations	988-PR-11725369 988-PR-30631 988-PR-30601	Fab/Procure & Deliver Air Handling Units (HVAC)Fabricate FencingFabricate & Deliver Metal Railings - Westchester/ Veterans StationFabricate & Deliver Metal Railings - Hyde Park Station	26-Feb-18 3-Feb-18 12-Feb-18	17-Apr-18 29-Jul-18 12-Jun-18

	988-PR-30471	Fabricate 100% of Artwork Panels - Westchester/Veterans	20-Feb-18	9-Jul-18
		Station (Porcelain Enamel Steel)		
Stations	988-PR-7425	Fabricate Station Artwork Panels	20-Feb-18	11-Jun-18
		- Crenshaw/Expo Station		
		(Porcelain Enamel Steel)		
Stations	988-PR-30521	Fabricate & Deliver Structural	26-Jan-17 A	28-Feb-18
Stations	900-FIX-30321		20-Jan-17 A	20-1 60-10
		Steel Canopy for		
		Westchester/Veterans Station		
Traction Power	988-PR-6955	Fabricate & Deliver Low Voltage	03-Apr-17 A	11-Jan-18
		Cable - Cut & Fill		
Traction Power	988-PR-6925	Fabricate & Deliver Panelboards -	16-Feb-17 A	23-Mar-18
		TPSS		
Traction Power	988-PR-6775	Fabricate & Deliver MCC - Expo	06-Feb-17 A	31-Jul-18
Traction Fower	900-FR-0775	Fabricate & Deliver MCC - Expo	UU-FED-IT A	31-Jul-10
Traction Power	988-PR-6765	Fabricate & Deliver Low Voltage	01-Aug-17 A	5-Feb-18
Traction Power	900-FR-0705		UT-Aug-T/ A	5-Feb-10
		Cable (Project Wide)		
Traction Power	988-PR-6745	Fabricate & Deliver Low Voltage	5-Feb-18	10-May-18
		Cable - MLK		
Traction Power	988-PR-6725	Fabricate & Deliver Dry Type	04-Feb-17 A	20-Jun-18
		Transformers - MLK		
Traction Power	988-PR-6605		21-Mar-17 A	10 Mov 19
Traction Power	200-LL-0002	Fabricate & Deliver Cable Tray in	ZT-IVIAI-T/ A	10-May-18
		Stations		
Traction Power	988-PR-6495	Fabricate & Deliver Panelboards -	16-Feb-17 A	25-Apr-18
		Underground Stations		
Traction Power	988-PR-6475	Fabricate & Deliver Pad Mount	02-Oct-17 A	12-Jun-18
		Transformer - TPSS		
Traction Power	988-PR-6535	Fabricate & Deliver Station UPS	5-Feb-18	15-Jun-18
Traction Fower	900-FIX-0333	Tablicate & Deliver Station 0F5	3-1 ED-10	13-301-10
Traction Power	988-PR-6555	Fabricate & Deliver Medium	03-Apr-17 A	11-Jan-18
		Voltage Cable		
Traction Power	988-PR-6545	Eabricate & Deliver TPSS	07-Aug-17 A	7-Mar-18
Traction Power	988-PR-6545	Fabricate & Deliver TPSS	07-Aug-17 A	7-Mar-18
Traction Power	988-PR-6545	Fabricate & Deliver TPSS Generator	07-Aug-17 A	7-Mar-18
Traction Power	988-PR-6545		07-Aug-17 A	7-Mar-18
		Generator		
	988-PR-6545 988-PR-6525	Generator Fabricate & Deliver Loose	07-Aug-17 A 28-Feb-18	7-Mar-18 26-Apr-18
		Generator		
Traction Power	988-PR-6525	Generator Fabricate & Deliver Loose Starters - Stations	28-Feb-18	26-Apr-18
Traction Power		Generator Fabricate & Deliver Loose Starters - Stations Fabricate & Deliver Dry Type		
Traction Power	988-PR-6525	Generator Fabricate & Deliver Loose Starters - Stations	28-Feb-18	26-Apr-18
Traction Power Traction Power	988-PR-6525 988-PR-6505	Generator Fabricate & Deliver Loose Starters - Stations Fabricate & Deliver Dry Type Transformers - TPSS	28-Feb-18 16-Feb-17 A	26-Apr-18 5-Mar-18
Traction Power Traction Power	988-PR-6525	Generator Fabricate & Deliver Loose Starters - Stations Fabricate & Deliver Dry Type	28-Feb-18	26-Apr-18
Traction Power Traction Power	988-PR-6525 988-PR-6505	Generator Fabricate & Deliver Loose Starters - Stations Fabricate & Deliver Dry Type Transformers - TPSS	28-Feb-18 16-Feb-17 A	26-Apr-18 5-Mar-18
Traction Power Traction Power Traction Power Traction Power	988-PR-6525 988-PR-6505 988-PR-6485	Generator Fabricate & Deliver Loose Starters - Stations Fabricate & Deliver Dry Type Transformers - TPSS Fabricate & Deliver MCC - TPSS	28-Feb-18 16-Feb-17 A 16-Feb-17 A	26-Apr-18 5-Mar-18 7-Mar-18
Traction Power Traction Power	988-PR-6525 988-PR-6505	Generator Fabricate & Deliver Loose Starters - Stations Fabricate & Deliver Dry Type Transformers - TPSS Fabricate & Deliver MCC - TPSS Fabricate & Deliver MCC - TPSS Fabricate & Deliver MCC - TPSS	28-Feb-18 16-Feb-17 A	26-Apr-18 5-Mar-18
Traction Power Traction Power Traction Power	988-PR-6525 988-PR-6505 988-PR-6485	Generator Fabricate & Deliver Loose Starters - Stations Fabricate & Deliver Dry Type Transformers - TPSS Fabricate & Deliver MCC - TPSS	28-Feb-18 16-Feb-17 A 16-Feb-17 A	26-Apr-18 5-Mar-18 7-Mar-18
Traction Power Traction Power Traction Power Traction Power	988-PR-6525 988-PR-6505 988-PR-6485 988-PRC-T0110	Generator Fabricate & Deliver Loose Starters - Stations Fabricate & Deliver Dry Type Transformers - TPSS Fabricate & Deliver MCC - TPSS Fabricate & Deliver MCC - TPSS Factory Acceptance Testing - TPSS-01	28-Feb-18 16-Feb-17 A 16-Feb-17 A 31-Jan-18 A	26-Apr-18 5-Mar-18 7-Mar-18 11-Jun-18
Traction Power Traction Power Traction Power Traction Power	988-PR-6525 988-PR-6505 988-PR-6485	Generator Fabricate & Deliver Loose Starters - Stations Fabricate & Deliver Dry Type Transformers - TPSS Fabricate & Deliver MCC - TPSS Fabricate & Deliver MCC - TPSS Fabricate & Deliver MCC - TPSS	28-Feb-18 16-Feb-17 A 16-Feb-17 A	26-Apr-18 5-Mar-18 7-Mar-18
Traction Power Traction Power Traction Power Traction Power Traction Power	988-PR-6525 988-PR-6505 988-PR-6485 988-PRC-T0110 988-PRC-T0120	GeneratorFabricate & Deliver Loose Starters - StationsFabricate & Deliver Dry Type Transformers - TPSSFabricate & Deliver MCC - TPSSFabricate & Deliver MCC - TPSSFactory Acceptance Testing - TPSS-01Prepare & Ship TPSS-01	28-Feb-18 16-Feb-17 A 16-Feb-17 A 31-Jan-18 A 15-Feb-18	26-Apr-18 5-Mar-18 7-Mar-18 11-Jun-18 25-Jun-18
Traction Power Traction Power Traction Power Traction Power Traction Power	988-PR-6525 988-PR-6505 988-PR-6485 988-PRC-T0110	GeneratorFabricate & Deliver Loose Starters - StationsFabricate & Deliver Dry Type Transformers - TPSSFabricate & Deliver MCC - TPSSFactory Acceptance Testing - TPSS-01Prepare & Ship TPSS-01Mfgr/Assemble/Wire Substation -	28-Feb-18 16-Feb-17 A 16-Feb-17 A 31-Jan-18 A	26-Apr-18 5-Mar-18 7-Mar-18 11-Jun-18
Traction Power Traction Power Traction Power Traction Power Traction Power Traction Power	988-PR-6525 988-PR-6505 988-PR-6485 988-PRC-T0110 988-PRC-T0120 988-PRC-T0200	Generator Fabricate & Deliver Loose Starters - Stations Fabricate & Deliver Dry Type Transformers - TPSS Fabricate & Deliver MCC - TPSS Fabricate & Deliver MCC - TPSS Factory Acceptance Testing - TPSS-01 Prepare & Ship TPSS-01 Mfgr/Assemble/Wire Substation - TPSS-02	28-Feb-18 16-Feb-17 A 16-Feb-17 A 31-Jan-18 A 15-Feb-18 10-Jul-17 A	26-Apr-18 5-Mar-18 7-Mar-18 11-Jun-18 25-Jun-18 22-Feb-18
Traction Power Traction Power Traction Power Traction Power Traction Power Traction Power	988-PR-6525 988-PR-6505 988-PR-6485 988-PRC-T0110 988-PRC-T0120	GeneratorFabricate & Deliver Loose Starters - StationsFabricate & Deliver Dry Type Transformers - TPSSFabricate & Deliver MCC - TPSSFabricate & Deliver MCC - TPSSFactory Acceptance Testing - TPSS-01Prepare & Ship TPSS-01Mfgr/Assemble/Wire Substation - TPSS-02Factory Acceptance Testing - TPSS-02	28-Feb-18 16-Feb-17 A 16-Feb-17 A 31-Jan-18 A 15-Feb-18	26-Apr-18 5-Mar-18 7-Mar-18 11-Jun-18 25-Jun-18
Traction Power Traction Power Traction Power Traction Power Traction Power Traction Power	988-PR-6525 988-PR-6505 988-PR-6485 988-PRC-T0110 988-PRC-T0120 988-PRC-T0200 988-PRC-T0210	GeneratorFabricate & Deliver Loose Starters - StationsFabricate & Deliver Dry Type Transformers - TPSSFabricate & Deliver MCC - TPSSFabricate & Deliver MCC - TPSSFactory Acceptance Testing - TPSS-01Prepare & Ship TPSS-01Mfgr/Assemble/Wire Substation - TPSS-02Factory Acceptance Testing - TPSS-02Factory Acceptance Testing - TPSS-02	28-Feb-18 16-Feb-17 A 16-Feb-17 A 31-Jan-18 A 15-Feb-18 10-Jul-17 A 26-Feb-18	26-Apr-18 5-Mar-18 7-Mar-18 11-Jun-18 25-Jun-18 22-Feb-18 14-May-18
Traction Power Traction Power Traction Power Traction Power Traction Power Traction Power	988-PR-6525 988-PR-6505 988-PR-6485 988-PRC-T0110 988-PRC-T0120 988-PRC-T0200	GeneratorFabricate & Deliver Loose Starters - StationsFabricate & Deliver Dry Type Transformers - TPSSFabricate & Deliver MCC - TPSSFabricate & Deliver MCC - TPSSFactory Acceptance Testing - TPSS-01Prepare & Ship TPSS-01Mfgr/Assemble/Wire Substation - TPSS-02Factory Acceptance Testing - TPSS-02	28-Feb-18 16-Feb-17 A 16-Feb-17 A 31-Jan-18 A 15-Feb-18 10-Jul-17 A	26-Apr-18 5-Mar-18 7-Mar-18 11-Jun-18 25-Jun-18 22-Feb-18
Traction Power Traction Power Traction Power Traction Power Traction Power Traction Power Traction Power Traction Power	988-PR-6525 988-PR-6505 988-PR-6485 988-PRC-T0110 988-PRC-T0120 988-PRC-T0200 988-PRC-T0210 988-PRC-T0220	GeneratorFabricate & Deliver Loose Starters - StationsFabricate & Deliver Dry Type Transformers - TPSSFabricate & Deliver MCC - TPSSFabricate & Deliver MCC - TPSSFactory Acceptance Testing - TPSS-01Prepare & Ship TPSS-01Mfgr/Assemble/Wire Substation - TPSS-02Factory Acceptance Testing - TPSS-02Factory Acceptance Testing - TPSS-02Prepare & Ship TPSS-01Prepare & Ship TPSS-02Prepare & Ship TPSS-02	28-Feb-18 16-Feb-17 A 16-Feb-17 A 31-Jan-18 A 15-Feb-18 10-Jul-17 A 26-Feb-18 12-Mar-18	26-Apr-18 5-Mar-18 7-Mar-18 11-Jun-18 25-Jun-18 22-Feb-18 14-May-18 29-May-18
Traction Power Traction Power Traction Power Traction Power Traction Power Traction Power	988-PR-6525 988-PR-6505 988-PR-6485 988-PRC-T0110 988-PRC-T0120 988-PRC-T0200 988-PRC-T0210	GeneratorFabricate & Deliver Loose Starters - StationsFabricate & Deliver Dry Type Transformers - TPSSFabricate & Deliver MCC - TPSSFabricate & Deliver MCC - TPSSFactory Acceptance Testing - TPSS-01Prepare & Ship TPSS-01Mfgr/Assemble/Wire Substation - TPSS-02Factory Acceptance Testing - TPSS-02Factory Acceptance Testing - TPSS-02	28-Feb-18 16-Feb-17 A 16-Feb-17 A 31-Jan-18 A 15-Feb-18 10-Jul-17 A 26-Feb-18	26-Apr-18 5-Mar-18 7-Mar-18 11-Jun-18 25-Jun-18 22-Feb-18 14-May-18

Traction Power	988-PRC-T0310	Factory Acceptance Testing - TPSS-03	5-Feb-18	22-Jun-18
Traction Power	988-PRC-T0320	Prepare & Ship TPSS-03	19-Feb-18	9-Jul-18
Traction Power	988-PRC-T0800	Mfgr/Assemble/Wire Substation - TPSS-08	02-Oct-17 A	9-Apr-18
Traction Power	988-PRC-T0810	Factory Acceptance Testing - TPSS-08	11-Apr-18	23-Apr-18
Traction Power	988-PRC-T0820	Prepare & Ship TPSS-08	25-Apr-18	7-May-18

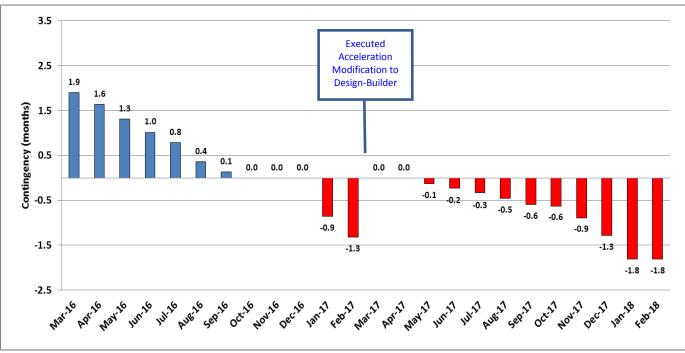
CRITICAL PATH NARRATIVE

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.

Metro has not received a February 2018 schedule update from WSCC. Therefore, Metro continues to show a 56 calendar day delay to WSCC's Contract Milestone #1 Substantial Completion date of May 1, 2019. The critical path continues with the track construction at Segment "A" (Green Line to Arbor Vitae), followed by ballasted track construction from Arbor Vitae to Oak Street, La Brea to Brynhurst, and Brynhurst to 48th Street. Track and OCS installation in the bored tunnel follows thereafter.

The current critical path then continues with WSCC systems integration testing, phase 1 and Metro's systems integration testing, 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 December 8, 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.

Metro received the January schedule update from WSCC after the close of the reporting period deadline in February 2018. The update forecast a 56-calendar day delay to WSCC's Contract Milestone #1 Substantial Completion date of May 1, 2019. This was an additional 16-calendar days of delay from the December 2017 forecast.

WSCC has not yet submitted a schedule update for the period ending March 2, 2018. Therefore, Metro is showing the 56-calendar day delay to WSCC's Contract Milestone #1 Substantial Completion date of May 1, 2019. Metro has requested WSCC to provide a Schedule Mitigation Plan to mitigate the 56 days of delay.

SCC	DESCRIPTION	ORIGINAL	CURREN	CURRENT BUDGET COMMITMENTS		NTS EXPENDITURES CURRENT FORECAS		CURRENT FORECAST		CURRENT BUDGET/	
CODE	DESCRIPTION	BUDGET	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	FORECAST VARIANCE
10	GUIDEWAYS	471,335,000		450,354,375	-	450,882,396	3,516,732	397,094,355		450,885,416	531,042
20	STATIONS	153,906,000	-	315,050,000		315,662,242	2,760,092	188,650,089		315,662,242	612,242
30	SUPPORT FACILITIES SOUTHWEST YARD	66,673,000		71,164,000	-	71,053,330	1,694,033	44,681,296	-	71,164,000	-
40	SITEWORK\SPECIAL CONDITIONS	235,576,000		395,798,361	317,085	399,529,411	2,656,442	329,791,487	317,085	407,106,838	11,308,477
50	SYSTEMS	125,132,000		169,436,000	2,664,583	160,741,291	4,638,448	66,138,227	4,452,873	170,507,808	1,071,808
	CONSTRUCTION SUBTOTAL (10-50)	1,052,622,000	•	1,401,802,736	2,981,669	1,397,868,670	15,265,746	1,026,355,454	4,769,959	1,415,326,305	13,523,568
60	RIGHT-OF-WAY	132,294,000		127,490,000	2,300	124,739,698	(2,944)	124,581,161	2,300	124,739,810	(2,750,190)
70	LRT VEHICLES	87,780,000		83,571,544		82,050,901		70,247,539		83,571,544	-
80	PROFESSIONAL SERVICES	273,147,000		368,734,466	7,855,298	360,565,166	1,861,884	307,987,278	194,778	375,118,069	6,383,604
	SUBTOTAL (10-80)	1,545,843,000	•	1,981,598,746	10,839,267	1,965,224,435	17,124,686	1,529,171,432	4,967,037	1,998,755,728	17,156,982
90	UNALLOCATED CONTINGENCY	177,157,000	•	50,401,254		-		-	(4,967,037)	33,244,272	(17,156,982)
	TOTAL PROJECT 865512 (10-100)	1,723,000,000	•	2,032,000,000	10,839,267	1,965,224,435	17,124,686	1,529,171,432	•	2,032,000,000	•
	ENVIRONMENT AL/PLANNING - 405512	5,526,150		5,526,150		5,526,150		5,526,150		5,526,150	-
	ENVIRONMENT AL/PLANNING - 465512	20,473,850	-	20,473,850		20,022,881		20,022,881		20,473,850	
TOTAL	. PROJECTS 405512 & 465512 (ENV / PLAN'G)	26,000,000	-	26,000,000	-	25,549,031	-	25,549,031	-	26,000,000	
	TOTAL PROJECTS 405512, 465512 & 865512	1,749,000,000	-	2,058,000,000	10,839,267	1,990,773,466	17,124,686	1,554,720,463	-	2,058,000,000	

PROJECT COST STATUS

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH MARCH 2, 2018

PROJECT COST ANALYSIS

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

Original Budget:

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

Current Budget:

There have been two increases in the LOP to date:

- The Board in December 2012 approved an increase of \$13.9 million for a new LOP total of \$1,762.9 million. The Unallocated Contingency Standard Cost Category (SCC) 90 budget line item was increased by the \$13.9 million for a new total of \$191.1 million.
- The Board in June 2013 approved an increase of \$295.1 million for a new LOP total of \$2,058.0 million. The total increase was based on two actions:
 - o Increase LOP base project scope in the amount of \$160.1 million, and
 - 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 \$150.2 million.

PROJECT COST ANALYSIS (Continued)

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-40 (Sitework and Special Conditions), SCC-50 (Systems), SCC-60 (Right-of-Way), SCC-80 (Professional Services) and SCC-90 (Unallocated Contingency).

Commitments:

The commitments are cumulative through March 2, 2018. The total commitments increased by \$10.8 million this period primarily due to the following:

- SCC-40 (Sitework and Special Conditions) has increased by \$0.3 million for executed modifications associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-50 (Systems) has increased of \$2.7 million for executed modifications associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-80 (Professional Services) has increased \$7.8 million for executed modifications for design build contract C0988 Crenshaw/LAX Transit Corridor, budget allocation for FY19 Metro project administration, legal services and Metro Corporate Safety Work Order Authorization with Los Angeles City Fire Department. The total commitment of \$360.6 million includes \$23.3 million for the Southwestern Yard 49% allocation.

The \$1,990.8 million in commitments to date represents 96.7% of the current budget.

PROJECT COST ANALYSIS (Continued)

Expenditures:

The expenditures are cumulative through March 2, 2018. The total expenditures increased by \$17.1 million this period due to the following:

- SCC-10 (Guideways) has increased by \$3.5 million for costs associated with the designbuild 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 \$1.7 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 \$2.6 million for costs associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor, third party utility relocation scope of work with The Gas Company and Metro art program.
- SCC-50 (Systems) has increased \$4.6 million for costs associated with the design-build Contract C0988 Crenshaw/LAX Transit Corridor.
- SCC-80 (Professional Services) has increased by \$1.9 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, project management support contract AE35279 with KKCS/TRIUNITY, labor compliance monitoring and environmental consultant services. The total expenditure of \$307.9 million includes \$18.1 million for the Southwestern Yard 49% allocation.

The \$1,554.7 million in expenditures to date represents 75.5% of the current budget.

Crenshaw/LAX Transit Locally Funded Activities

The costs shown in the table below are part of Crenshaw/LAX Transit Project locally funded activities' costs, which are being reported below the line and will be re-allocated to a new FY19 "Crenshaw/LAX Locally Funded Activities" project. The project will be active commencing July 2018.

SCC	DESCRIPTION	ORIGINAL CURRENT BUDGET		COMMI	COMMITMENTS		EXPENDITURES		CURRENT FORECAST		
CODE		BUDGET	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	VARIANCE
60	RIGHT-OF-WAY	-	-	-	-	3,867,395	-	3,867,395	-	3,867,395	(3,867,395)
70	VEHICLES / BUSES *1	-	-	-	-	10,699,000	-	10,699,000	-	10,699,000	(10,699,000)
80	PROFESSIONAL SERVICES	-	-	-	-	4,419,494	24,463	1,548,954	15,748	4,846,214	(4,846,214)
	SUBTOTAL (10-80)	-	-	-	-	18,985,889	24,463	16,115,349	15,748	19,412,609	(19,412,609)
	TOTAL	-	-	-	-	18,985,889	24,463	16,115,349	15,748	19,412,609	(19,412,609)
NOTE:	EXPENDITURES ARE CUMU	LATIVE THR	OUGHMAR	CH 2, 2018							

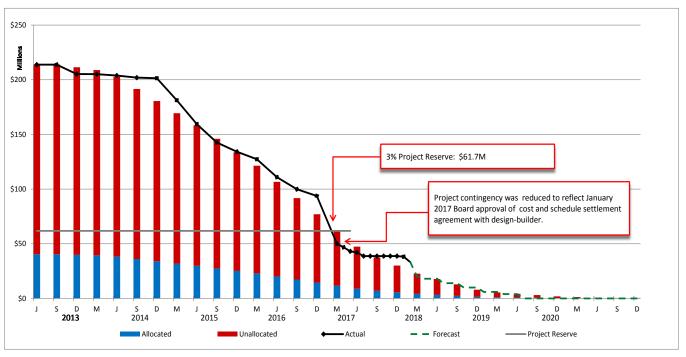
Note: The \$10.7 million under SCC 70 LRT Vehicles is for State Board of Equalization (SBOE) to tax LRT vehicle deliveries since August 2016. Metro is appealing the decision by the SBOE but is paying the tax so as not to incur any late fees.

PROJECT COST ANALYSIS (Continued)

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)

DESCRIPTION	CURREN	CURRENT BUDGET COMMITMENTS EXPENDITURES		DITURES	CURRENT FORECAST		FORECAS		
DESCRIPTION	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	VARIANCE
405556 SYSTEMWIDE TRANSIT PLANNING	-	175,495	-	320,035	-	230,035	-	175,495	-
210090/93 FARE GATE PROJECT	-	2,566,226	-	2,566,226	-	252,726	-	2,566,226	-
210152 CRENSHAW/LAX BUS TRANSFER FACILITY	-	2,200,000	-	2,200,000	-	403,334	-	2,200,000	-
460303 AIRPORT METRO CONNECTOR	-	37,914,465	-	35,794,171	-	34,933,485	-	37,914,465	-
500013 C/LAX LAWA SCOPE OF WORK	-	1,575,362	50,702	914,613	-	741,407	-	1,575,362	-
TOTAL	-	44,431,548	50,702	41,795,045	-	36,560,987	-	44,431,548	-



PROJECT COST CONTINGENCY DRAWDOWN

Through 02-Mar-2018

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 \$180,622,520 or 84.5% for both allocated and unallocated contingency through February 2018.

- The unallocated contingency decreased by \$4,967,037 for executed modifications for design-build contract C0988 Crenshaw/LAX Transit Corridor, ATP Train Control Green Line LRT related scope of work, Metro Corporate Safety Work Order Authorization with Los Angeles City Fire Department and executed modification with KLEINFELDER, INC. contract PS3274 CWO04 for Environmental Support Services.
- There is no allocated contingency remaining as of February 2017 month-end reporting.

PROJECT COST CONTINGENCY (through 02-Mar-2018)									
UNITS IN DOLLARS									
	Original				Remaining				
	Contingency	Previous	Current	To-Date	Contingency				
	(Budget)	Period	Period		(Forecast)				
Unallocated Contingency	173,500,000	(135,288,691)	(4,967,037)	(140,255,728)	33,244,272				
Allocated Contingency	40,366,792	(40,366,792)	-	(40,366,792)	-				
Total Contingency	213,866,792	(175,655,483)	(4,967,037)	(180,622,520)	33,244,272				

DISADVANTAGED BUSINESS ENTERPRISE (DBE) STATUS

	Contract C0988 Crenshaw/LAX Transit C (Reported Data as of January		<u>Build</u>
•	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.	\$23,579,103	(20.00%)
•	Current DBE Participation – Total amount paid to date to DBEs divided by the amount paid to date to Prime.	\$28,229,811	(25.64%)
	Twenty-Six (26) Design subcontractors have bee	en identified to-da	te
•	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.	\$244,896,500	(19.50%)
	Current DBE Participation - Total amount paid to date to DBEs divided by the amount paid to date to Prime	\$223,153,799	(25.88%)
	246 Construction subcontractors have been ide	ntified to-date.	

PROJECT LABOR AGREEMENTS (PLA) STATUS

	Contract C0988 Crenshaw/LAX Transit Corridor De (Reported Data as of December 2017)	esign-Build
•	Targeted Worker Goal – Construction work to be performed by residents from Economically Disadvantaged Area of LA County	40.00%
	Targeted Worker Current Attainment	59.71%
•	Apprentice Worker Goal – Construction work to be performed by Apprentices	20.00%
	Apprentice Worker Current Attainment	22.80%
•	Disadvantaged Worker Goal – Construction work to be performed by Disadvantaged Workers whose primary place of residence is within LA County	10.00%
	Disadvantaged Worker Current Attainment	12.41%

DISADVANTAGED BUSINESS ENTERPRISE (DBE) STATUS

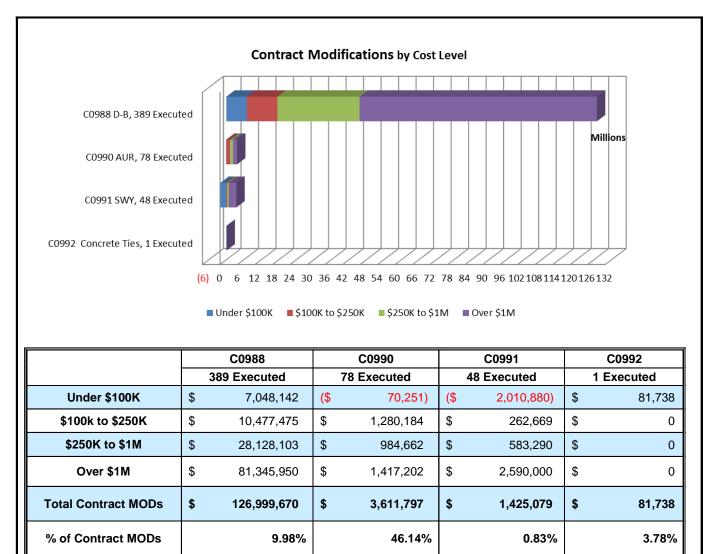
Contract C0991 Division 16: Southwestern Ya (Reported Data as of January 2013)	•	d
 DBE Goal (Design) – A numerically expressed percentage of funds apportioned to Design Contracts and is calculated based upon the relative availability of DBE firms as compared to all firms in the relevant geographic market area. 	20.00%	
 Current DBE Commitment – Total DBE Committed Dollars divided by Total Contract Value for Design or Construction. 	\$2,467,837	(20.93%)
 Current DBE Participation – Total amount paid to date to DBEs divided by the amount paid to date to Prime. 	\$2,040,403	(19.96%)
Ten (10) Design subcontractors have been identified to-da	ite	
• 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.	\$25,930,837	(16.00%)
 Current DBE Commitment - Actual commitments as Construction work is awarded 	\$25,539,090	(15.75%)
Current DBE Participation - Total amount paid to date to DBEs divided by the amount paid to date to		(13.99%)
Forty-eight (48) Construction subcontractors have been	identified to-dat	е.

PROJECT LABOR AGREEMENTS (PLA) STATUS

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

•	Targeted Worker Goal – Construction work to be performed by residents from Economically	40.00%
	Targeted Worker Current Attainment	51.97%
•	Apprentice Worker Goal – Construction work to be performed by Apprentices	20.00%
	Apprentice Worker Current Attainment	23.93%
•	Disadvantaged Worker Goal – Construction work to be performed by Disadvantaged Workers whose primary place of residence is within LA County	10.00%
	Disadvantaged Worker Current Attainment	9.47%

SUMMARY OF CONTRACT MODIFICATIONS



Three hundred and eighty-nine (389) changes with a total value of \$126.99 million have been executed since award of Contract C0988. There are an additional thirty-five (35) changes with a total value of \$2.30 million pending the administrative approval process.

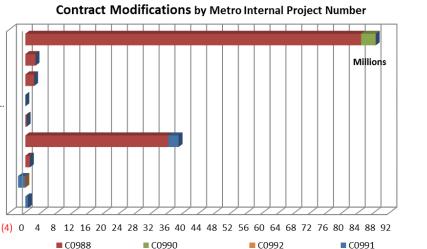
Seventy-eight (78) changes with a total value of \$3.61 million have been executed for completed Contract C0990.

Forty-eight (48) changes with a total value of \$1.42 million have been executed since award of Contract C0991. There are an additional two (2) changes with a total value of \$0.08 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 C/LAX Transit Project, 437 Executed 210090/93 Fare Gate Project, 6 Executed 210152 Bus Transfer Station, 1 Executed 380004 Support Development of DAS Cell, 0.. 405556 System Transit Planning, 5 Executed 460303 Airport Connector Project, 13 Executed 500013 LAWA Funded SOW, 8 Executed 860003 SWY, 40 Executed 861301 Paint & Body Shop, 6 Executed

				Design-Build	Utility R		Concrete Ties	SWY	
	865512	210090/93	210152	380004	405556	460303	500013	860003	861301
	Executed	Executed	Executed	Executed	Executed	Executed	Executed	Executed	Executed
C0988 - QTY	358	6	1	0	5	11	8	0	0
C0998 - \$	84,709,523	2,566,226	2,200,000	0	320,035	36,069,273	1,134,613	0	0
C0990 - QTY	78	0	0	0	0	0	0	0	0
C0990 - \$	3,611,797	0	0	0	0	0	0	0	0
C0991 - QTY	0	0	0	0	0	2	0	40	6
C0991 - \$	0	0	0	0	0	2,598,580	0	(1,818,637)	645,136
C0992 - QTY	1	0	0	0	0	0	0	0	0
C0992 - \$	81,738	0	0	0	0	0	0	0	0
Total - QTY	437	6	1	0	5	13	8	40	6
Total - \$	88,403,058	2,566,226	2,200,000	0	320,035	38,667,853	1,134,613	(1,818,637)	645,136

Four hundred and thirty-seven (437) changes with a total value of \$88.40 million have been executed for Project 865512 Crenshaw/LAX Transit Project. There are an additional thirty (30) changes with a total value of \$0.85 million pending the administrative approval process.

Six (6) changes with a value of \$2.57 million have been executed for Project 210090/93 Fare Gate Project. One (1) change with a value of \$2.20 million has been executed for Project 210152 Bus Transfer Station Project.

Zero (0) change has been executed for project 380004 Support Development of DSA Cell. There is additional one (1) change with total value of \$0.03 million pending the administrative approval process.

Five (5) changes with a value of \$0.32 million have been executed for Project 405556 System Transit Planning.

Thirteen (13) changes with a value of \$38.67 million have been executed for Project 460303 Airport Metro Connector Project. There are an additional three (3) changes with a total value of \$0.004 million pending the administrative approval process

Eight (8) changes with a total value of \$1.13 million have been executed for Project 500013 Crenshaw/LAX LAWA Statement of Work.

Forty (40) changes with a credit value of \$1.82 million have been executed for Project 860003 Southwestern Yard project. There are additional two (2) changes with a total value of \$1.35 million pending the administrative approval process.

Six (6) changes with a value of \$0.65 million have been executed for Project 861301 Southwestern Yard Paint and Body Shop. There is additional one (1) change with a total value of \$0.08 million pending the administrative approval process.

FINANCIAL/GRANT STATUS

\$ in millions	(A)	(B)	(C)	(D)	(D/B)	(E)	(E/B)	(F)	(F/B)	
	(A) ORIGINAL	(D) TOTAL	TOTAL FUNDS	()	COMMITMENTS		EXPENDITURES		BILLED to FUNDING	
SOURCE	BUDGET	FUNDS				-			SOURCE	
		ANTICIPATED	AVAILABLE	\$	%	\$	%	\$	%	
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	105.9	105.9	105.9	100%	93.5	88%	93.5	88%	
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	9.1	36.6	100%	9.1	25%	9.1	25%	
STATE PPM	0.178	0.178	0.178	0.178	100%	0.178	100%	0.178	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%	471.2	89%	471.2	89%	
OTHER FUNDS*	52.4	160.5	87.0	93.3	62%	80.9	50%	80.9	50%	
PROP C 25% HIGHWAY	148.9	373.1	373.1	373.1	95%	82.7	22%	82.7	22%	
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%	15.0	30%	4.9	10%	
TOTAL	1,749.0	2,058.0	1,956.9	1,990.8	96.7%	1,554.7	75.5%	1,544.5	69.0%	

NOTE: Expenditures are cumulative through March 2, 2018

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. \$54M of CMAQ Funds for construction have been spent as of June 2016.

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. \$28.2M of RSTP Funds for construction have been spent as of June 2016.

STATE PROP 1B – PTMISEA: \$128.5M of original PTMISEA Funds and \$432.6K have been spent as of October 2017.

STATE PROP 1B SLPP: \$49.5M of PROP 1B SLPP Funds for construction have been spent as of June 2016.

STATE PROP RIP: \$6.88 of RIP Funds executed by Caltrans in January 2018 and is 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. Funds have been spent fully drawn as of August 2016.

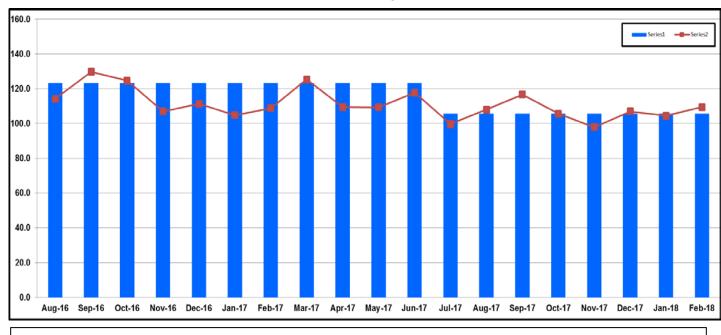
MEASURE R: \$529.3M of Measure R Funds have been committed for this project. Funds are budgeted annually based on cashflow needs.

OTHER FUNDS: City of LA: Based on the funding agreement between Metro and the City of LA. \$28M is available for drawdown through FY2018. \$53M of General Funds have been committed for this Project. Funds are budgeted annually based on cashflow needs.

PROP C 25% HIGHWAY: \$378.1M of PROP C 25% Funds have been committed for this Project. Funds are budgeted annually based on cashflow needs.

PROP A 35% RAIL CAPITAL: \$50.4M of PROP A 35% Funds have been committed for this Project. Funds are budgeted annually based on cashflow needs.

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 February 2018.

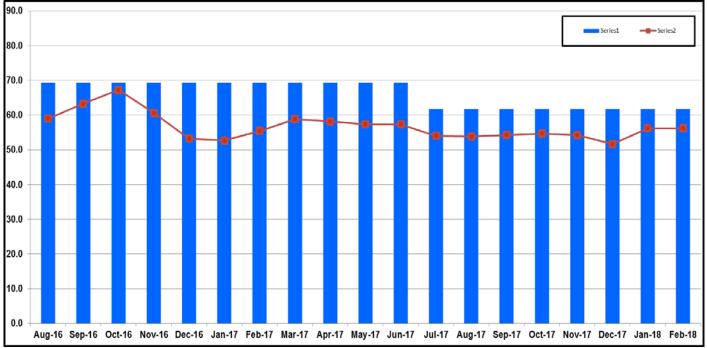
TOTAL PROJECT STAFFING

The overall FY18 Total Project Staffing Plan averages 105.7 Full Time Equivalent (FTEs) per month consisting of 61.7 for Metro Agency staff, 37.0 for Construction Management Support Services Consultant and 7.0 for Design and Engineering Support Services Consulting staff.

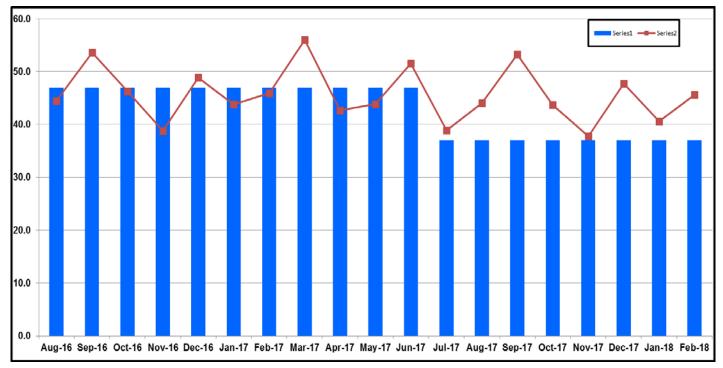
For February 2018, total project staffing were 109.4 FTEs for the month consisting of 56.2 FTEs for Metro's project administration staff, 45.6 FTEs for Construction Management Support Services Consultant and 7.6 FTEs for Design and Engineering Support Services Consulting staff.

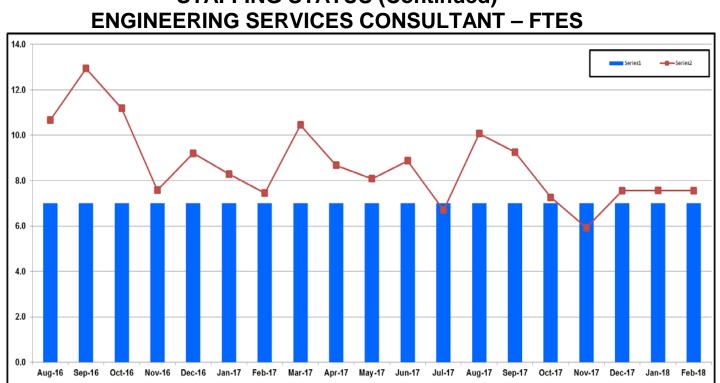
The next three charts show actual staffing versus planned staffing for the three major project participants.

STAFFING STATUS (Continued) METRO STAFFING – FTES



CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONSULTANT – FTES





STAFFING STATUS (Continued)

						0			
Contract No.	Number of Parcels	Certified	Decertified	Appraisals Complete	Offers Made	Agreements Signed	Condemnations Filed	Relocations Complete	Parcels Available to WSCC
C0988 C/LAX Transit Corrido	r (D-B):	•							
Crenshaw Subdivision									
Full Takes	12	12		12	12	7	5	12	12
Part Takes (PT or SE)	10	9	1	9	9	3	6		9
TCE	10	9	1	10	10	1	8		9
Subtotal Parcels	32	30	2	31	31	11	19	12	30
Crenshaw Subdivision Addit	ional Parcels:						•		
Full Takes									
Part Takes	1	1		1	1	1	1		1
TCE									
Subtotal Parcels:	1	1		1	1	1	1		1
Total Crenshaw Parcels	33	31	2	32	32	12	20	12	31
Harbor Subdivision	÷	-			-			-	
Full Takes	15	15		15	15	8	7	12	15
Part Takes (PT or SE)	18	16	2	18	17	8	10		16
TCE	3	2	1	2	2		2		2
Subtotal Parcels	36	33	3	35	34	16	19	12	33
Harbor Subdivision Addition	al Parcels:	-	•		-	-		-	
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
Subtotal Parcels:	10	7	3	7	6	5		1	6
Total Harbor Subdivision Parcels	46	40	6	42	40	21	19	13	39
Total CR/HS Parcels:	79	71	8	74	72	33	39	25	70
Southwestern Yard							•		
Full Takes	8	8		8	8	4	4	7	8
Part Takes									
TCE									
Subtotal Parcels:	8	8		8	8	4	4	7	8
Total SW Parcels:	8	8		8	8	4	4	7	8
Total Project Parcels	87	79	8	82	80	37	43	32	78

REAL ESTATE STATUS

• All parcels necessary to construct the guideway have been turned over to the Contractor.

- Work requiring the last remaining parcel does not fall under WSCC's scope of work and will constructed under a separate contract. Relocations for this parcel should be complete by 12/31/18.
- 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 and WSCC Lead Quality personnel.
- WSCC Quality issued Seven (7) Nonconformance Reports (NCR's) during this period.
- Metro Quality participated in Readiness Review Meetings for spray on acoustical conduit installation.

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
 - Weekly Storm Water Pollution Prevent Plan (SWPPP) inspection reports
 - Weekly Fugitive Dust Inspection Reports
 - Various Construction Work Plans and Submittals
 - o Quarterly Noise Control Plans
- Conducted Contractor Cultural Awareness Training.
- Participated in Environmental Management System (EMS) meetings with design builder.
- Conducted site visits along the ROW for environmental compliance including soil stockpile areas, UG1, UG3, UG4, B1 and A guideways and laydown yards.
- Conducted night time noise monitoring at UG3 operations on 2/22.
- Conducted night time noise monitoring at UG4 on 2/13 and 2/15.
- Conducted night time noise monitoring at Vernon Station on multiple days in February 2018.
- Conducted night time noise monitoring at Hindry/Florence on 2/15 and 2/16.
- Conducted night time noise monitoring at MLK Station on multiple days in February 2018.
- Conducted night time noise monitoring at I-405 Bridge on multiple days in February 2018.
- Conducted night time noise monitoring at Expo Station on 2/10, 2/15 and 2/16.
- Conducted night time noise monitoring at Arbor Vitae on 2/13 and 2/26.
- Metro notified WSCC they are required to submit a SCAQMD notification with a Procedure 5 work plan concerning conduit piping with potential asbestos containing material encountered during trench excavation at the West/Redondo work area. WSCC scheduled pipe removal and haul away on 2/26.

CONSTRUCTION RELATIONS STATUS

- Began preliminary outreach to key stakeholders and community organizations including West Angeles Church, the LA Sentinel, Baldwin Hills Crenshaw Plaza and the Empowerment Congress West NDC concerning restoration work and closures in the northern portion of the alignment.
- Began production of a restoration brochure with detour information and a bus detour map.
- Construction Relations and Metro Safety continue to work with WSCC on the recurring issues of homeless encampments within the ROW.
- Working with WSCC to reduce the frequency of Crenshaw Blvd. closures.
- Working with WSCC to minimize the impacts of lane and street closures in the area of Brynhurst Avenue for sewer construction
- The CLC hosted an Eat Shop Play Dinner on February 20, 2018 at Dulan's
- The CLC hosted a Project Labor Agreement and Construction Careers Policy Reporting Workshop (PLA/CCP) on February 21, 2018.

SYSTEMWIDE DESIGN AND ART PROGRAM STATUS

- Facilitated coordination between artists and fabrication firms.
- Provided design review comments for NDCs and shop drawings.
- Reviewed porcelain enamel steel artwork fabrication proofs.
- Received and inspected glass mosaic murals for Leimert Park and Martin Luther King Stations.

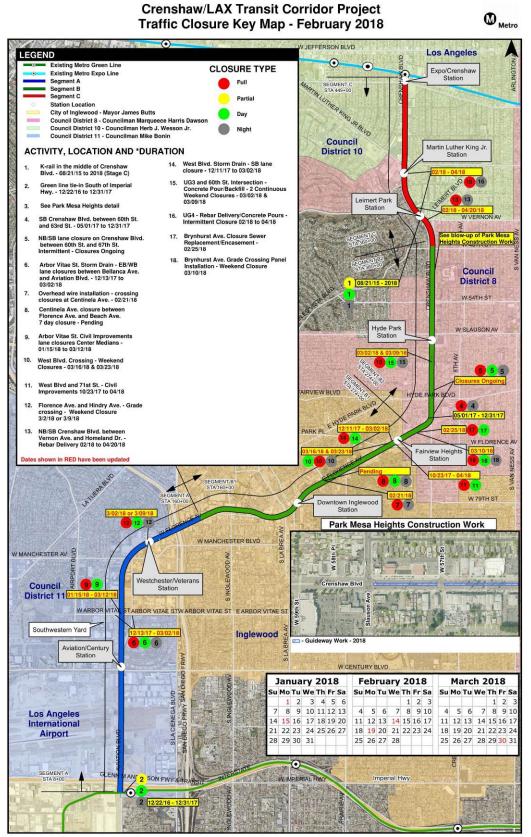
SAFETY & SECURITY STATUS

- Participated in weekly progress meetings with Construction Management Team to discuss safety/security/quality related issues.
- Attended WSCC's and Metro Progress Meeting to discuss safety concerns and the six week look ahead work schedule.
- Attended the WSCC's weekly Safety Tool-Box Meetings.
- Monitored construction activities on a daily basis including weekend safety "spotchecks" to ensure compliance with contract specifications.
- Monitored UG1, Green Line tie in, station boxes and tunnels including tunnel cross passages handrail installation.
- Conducted Monthly All Hands Safety and Security Meeting on February 28, 2018 to discuss Cal OSHA documentation, status of UG3, teamwork/partnering, ventilation of station boxes, invert, concourse, roof and surface areas.
- Conducted safety walk with WSCC Safety Manager on February 7, 2018 to monitor access and egress at UG4.
- Participated in 54th Street Duct Bank Restoration Work Readiness Review Meeting on February 27, 2018.
- Participated in Safety Readiness Review Meeting on February 13, 2018 to discuss UG3 Backfill Restoration, traffic plans, backfill methods and utility protection.
- Conducted workshop on February 13, 2018 to discuss self-rescuers, tag in and tag out and certified gas testers to perform air monitoring.
- 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 297,011 work hours with 3 recordable injuries. Hensel Phelps and their subcontractors completed 31,102 (HPH is confirming hours) work hours and zero recordable injuries for the month of February 2018.
- Contract C0988 (WSCC) completed 140,900 work hours with two recordable injuries for the month of February 2018. Total Project to Date work hours are 5,228,991 with a total of seventy-seven recordable incidents. The Project Recordable Rate is 2.9. The Bureau of Labor Statistics average recordable rate per 200,000 work hours is 2.9.

Third Party	Type of Agreement	Forecast Execution Date	Required Need Date	Status/ Comments
City of Los Angeles	Amendment to Master Cooperative Agreement	N/A	N/A	Parties will work under 2003 MCA.
City of Inglewood	Master Cooperative Agreement	8/16	N/A	Executed Letter of Agreement April 2012. Metro working on outstanding issues.
Los Angeles Department of Water and Power	Amendment to Memorandum of Understanding	N/A	N/A	Metro and LADWP will work under 2002 Utility Cooperative Agreement which remains in effect.
Los Angeles County Public Works	Letter of Agreement	4/11	3/12	Executed
Caltrans	Amendment	8/11	3/12	Executed
Private Utilities	LOA, MOU or UCA	5/11 to 5 / 13	N/A	Metro is working with affected third party utilities under work orders unless license agreements dictate relocation by utility company. No additional agreements required.

CPUC CROSSING SUMMARY STATUS

- The CPUC has approved all packages.
- LACMTA filed a response on March 25, 2016 in response to a petition that was filed by a community member, Chandra V. Mosley, to modify the CPUC Decision that approved seven at-grade crossings on Crenshaw Blvd, located from 48th St. to 59th St.
- Metro attended the Prehearing regarding the petition on May 24, 2016.
- The 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.



Updated : 02/26/2018

*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 th St. Station).
June 29, 2015	Issued Notice to Proceed to Hensel Phelps/Herzog JV, Contract C0991 Division 16: SouthwesternYard.
July 23, 2015	The Board approved the Official and Operational Names of the eight stations.
April 27, 2016	The Tunnel Boring Machine was launched and drilling from north to south of the alignment started.
May 7, 2016	Held Halfway There Community Celebration at Leimert Park marking the halfway point of the project.
May 27, 2016	Held Groundbreaking Ceremony for the Southwestern Yard (Division 16).
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

PE Design Contractor: Hatch M CM Consultant: Stantec Contractor: - Walsh Shea Corri		tructors /		Contract No.: C0988			
Progress/Work Completed: Construction • Continued tunnel handrail installai • Continued wall and roof concrete Park stations. • Continued wall and roof placemen • Continued track work installations at • Continued crack work installations of • Continued crack or the stallation work of • Continued Green line tie-in efforts	ons. blacements ts at under available are installation within Park	s at Expo, N ground stru eas along ali at south en	/LK Jr and I ucture #3 ar ignments. d of alignmen	nd #4.	 Status as of March 03, 2018 Areas of Concern: Timely submittal of WSCC's design submit Los Angeles. WSCC's ability to mitigate potential schedu substantial completion milestone of May 1, 	le delay to their	
 Schedule Assessment: WSCC's January 2018 schedule updat WSCC is looking at several options to Metro's assessment is that WSCC is r Metro has not received a February 20 continues to show a 56 calendar day Substantial Completion date of May 	mitigate the esponsible t 018 update t delay to WS	e forecast de o mitigate t from WSCC.	elay. he 56 days. Therefore, N	Netro	Cost Assessment: • The current construction contract cost foreca \$1,398,259,425.65 and is within the Board au • The Contractor submitted their 55th payment approved amount of \$19,785,690.61 * Please note that not all executed modification in the Contractor current payment application.	thorized budget. application in the	
Schedule Summary:					Cost Summary:	\$ In millions	
1. Date of Award:		08/01/13			1. Award Value:	1,272.63	
2. Notice to Proceed:		09/10/13			2. Executed Modifications:	115.59	
 Original Substantial Completion E 	Juration:	1824			3. Approved Change Orders:	11.41	
4. Current Substantial Completion D		2059			4. Current Contract Value (1 + 2 + 3): 1,399.63		
5. Elapsed Time from NTP:		1635	79.4%		5. Incurred Cost: 1,014.13		
Milestones	Original Contract	Current Contract	Forecast	Calendar Day Variance	PERCENT COMPI from 09/10/13 to 03/0		
Milestone 1 - Contract Substantial Completion	09/08/18	05/01/19	06/26/19	-56			
Milestone 2 - UFS Completion	03/09/18	11/01/18	10/19/18	13	Design	99.0%	
Milestone 3 - Commence SIT Phase I	06/09/18	02/01/19	03/29/19	-56	Construction	71.6%	
Milestone 5A - Const./Turnover Parcels SW-0002, 0003, 0004, 0104 (South)	06/05/17	06/05/17	06/05/17A	0	Total Incurred Cost	72.5%	
Milestone 5B - Const./Turnover Parcels SW-0002, 0003, 0004, 0104(North)	06/05/17	06/11/17	06/11/17A	0	0.0% 20.0% 40.0% 60.0%	80.0% 100.0%	
Milestone 6 - Const./Turnover Parcels SW-0001	08/01/17	08/01/17	07/10/17A	0	Percent Complete F	Progress	
Milestone 7 - Provide Access for Division 16 Southwestern Yard	01/23/16	01/23/16	02/22/16A	-30	Construction physical percent comp mobilization and general requirement		

CONTRACT C0990 STATUS

Crenshaw/LAX Advanced Utility Relocations

PE Design Contractor: Hat CM Consultant: Stantec Contractor: - Metro Builde			Froun LTD		Contract No.: 0 Status: Comple		SAL
Progress/Work Completed - The construction was substar - Board authorized in March as - Contract is closed out.	: tially comp	leted on Au	ugust 21, 20 ⁻	14	Areas of Conce		
Schedule Assessment: - Metro granted substantial cor 2014, which is 276 calender da - The settlement with the contra-	ys behind.		-	ıst 21,	to contractor.	ct is \$11,316,140.00 and h	
Schedule Summary:					Cost Summary:		\$ In millions
1. Date of Award:		05/30/12			1. Award Value:		7.83
2. Notice to Proceed:		07/17/12			2. Executed Mod	difications:*	3.49
3. Original Substantial Comple	tion Durati	365			3. Approved Cha	ange Orders:	-
4. Current Substantial Comple	tion Duratio	468			4. Current Contr	act Value (1 + 2 + 3):	11.32
5. Elapsed Time from NTP:		753			5. Incurred Cost	:	11.32
Milestones	Original Contract	Current Contract	Forecast	Calendar Day Variance	1	PERCENT COMP from 7/17/12 to 8/2	
Milestone 1 - Contract Substantial Completion	07/17/13	11/18/13	08/21/14A	-276	Design	0%	
					Design		
					Construction		100%
					Total Incurred		100%
					Cost		
					. 0%	20% 40% 60%	
						Percent Complete	Progress
						ruction physical percent comp zation and general requireme	

CONTRACT C0991 STATUS

Southwestern Yard

PE Design Contractor: Ha CM Consultant: Stantec	tch Mott	(HM)			Contract No.: C0991		And
Contractor: - Hensel Phel	ps / Herzo	og JV			Status as of Marc	h 03, 2018	- State
Progress/Work Completed:					Areas of Concern:		
 Continued with electrical and commissers, storm drain, sewer connect Completed exterior skin framing of the structure. 	ion and fire	water lines.			 No concern at this time. 		
Continued car wash and car clean construction and erected the carw							
 Continued with main shop CMU was drywall/tape/finish, electrical, duct roofing activities. Continued turnout construction on turnouts on site. Continued with under drain sub-bal 	work, mech	nanical, plum de of the pro	ibing roof draii ject, and rece	n and			
installation.							
 Continued Paint & Body duct bank clarifier. 	k, conduits,	foundation, e	excavation and	d setting			
Started installation of roof equipme	ent, car hois	ts and 15-To	on crane in ma	ain shop.			
Schedule Assessment:					Cost Assessment:		
 Interface coordination between HP proactively to address and to minin All phase II access dates were achieved ahead of time. 	, ,		0		 The current construction contra \$173,737,773.67 is within the E The Contractor submitted their approved amount of \$6,777,186 	3oard authorized 31st payment ap	budget.
					Please note that not all execute included in the Contractor curre		
Schedule Summary:					Cost Summary:		\$ In millions
1. Date of Award:		28-May-15			1. Award Value:		172.31
2. Notice to Proceed:		29-Jun-15			2. Executed Modifications:		1.38
3. Original Substantial Completion	n Duration:	1,220			3. Approved Change Orders:		0.05
4. Current Substantial Completion	Duration:	1,311			4. Current Contract Value (1 + 2 + 3): 173.74		
5. Elapsed Time from NTP:		978	74.6%		5. Incurred Cost (thru January	2018):	105.22
Milestones	Original Contract	Current Contract	Forecast	Calendar Day Variance		ERCENT COMPLET	
MS#1 Yard and Main Shop Design Completion	26-Oct-16	26-Oct-16	26-Oct-16 A	0			
MS#2 Main Shop Communication Room Completion	15-Jan-18	16-Apr-18	16-Apr-18	0	Design		90.8%
MS#3 Main Shop Substantial Completion	30-Apr-18	30-Jul-18	8-Aug-18	-9	Construction	33.	4%
MS#4 Southwestern Yard Substantial Completion	31-Oct-18	30-Jan-19	30-Jan-19	0	Total Incurred Cost		60.6%
					0.0% 20.0% 4	0.0% 60.0%	80.0% 100.0%
					Perc	ent Complete Prog	ress

CONTRACT C0992 STATUS

Concrete Ties

PE Design Contractor: Hatch CM Consultant: Stantec)			Contract No.: C0992	
Contractor: Rocla Concrete	Tie Inc.				Status: Completed	
Progress/Work Completed: - All 19,936 concrete ties have be (Contract C0988). - Contract is closed out.	en received	onsite by t	the design-b	uilder	Areas of Concern:	
Schedule Assessment: All concrete ties were delivered to) job site by	August 15,	2014.		Cost Assessment: The final contract cost is \$2.25 million and has to contractor.	been completely paid
Schedule Summary: 1. Date of Award: 2. Notice to Proceed:			12/10/13 12/23/13		Cost Summary: \$ In mi 1. Award Value: 2. Executed Modifications:	llions 2.16 0.09
	D		220			0.00
3. Original Substantial Completion			235		3. Approved Change Orders:	2.25
 Current Substantial Completio Elapsed Time from NTP: 	n Duration:		235		 Current Contract Value (1 + 2 + 3): Incurred Cost: 	2.25
Milestones Milestone 1 - Contract Substantial	Original Contract	Contract	Forecast	Calendar Day Variance	PERCENT COMPLETE from 12/23/2013 to 8/15/14	
Completion	07/31/14	08/15/14	08/15/14A	0	Delivered	100%
				0	-	100%
				0	Shipped	
				0	Total Incurred Cost	100%
				0	0% 50%	100%
				0	Percent Complete Progress	
					Construction physical percent complet mobilization and general requirements	e excludes

CONTRACT C0992A STATUS

Running Rail and Bumping Posts

Contractor: LB Foster Rail Te	Mott (HM) chnology C	orp			Contract No.: C0992A Status: Completed			
Progress/Work Completed: - All 115RE SS Blank Stick Rails h - All 115RE HH rail have been del - All Bumping Posts have been del - Contract is closed out.	ivered to job s	ite.			Areas of Concern:			
Schedule Assessment:					Cost Assessment:			
All running rails and bumping posts					The final contract cost is \$ to contractor.	5,2 million and has bee	en completely paid	
Schedule Summary:					Cost Summary:	\$ In milli	ons	
Schedule Summary: 1. Date of Award:			01/23/14		Cost Summary: 1. Award Value:	\$ In milli	ons 5.2	
-			01/23/14 03/07/14		-			
1. Date of Award:	n Duration:				1. Award Value:	3:	5.2	
 Date of Award: Notice to Proceed: Original Substantial Completion Current Substantial Completion 			03/07/14		 Award Value: Executed Modifications 	s: ers:	5.2	
 Date of Award: Notice to Proceed: Original Substantial Completion 			03/07/14 300		 Award Value: Executed Modifications Approved Change Ord 	s: ers:	5.2	
 Date of Award: Notice to Proceed: Original Substantial Completion Current Substantial Completion 	Duration:	Current Contract	03/07/14 300 558 448	Calendar Day	 Award Value: Executed Modifications Approved Change Ord Current Contract Value Incurred Cost: 	s: ers:	5.2 5.2 5.2	
Date of Award: Date of Award: Notice to Proceed: Original Substantial Completion Current Substantial Completion Elapsed Time from NTP: <u>Milestones Milestones Milestone 1 - Contract Substantial </u>	Duration:	Current Contract 09/30/15	03/07/14 300 558	Calendar	 Award Value: Executed Modifications Approved Change Ord Current Contract Value Incurred Cost: 	s: ers: e (1 + 2 + 3): - PERCENT COMPLETE	5.2 5.2 5.2	
 Date of Award: Notice to Proceed: Original Substantial Completion Current Substantial Completion Elapsed Time from NTP: 	Duration: Original Contract	Contract	03/07/14 300 558 448 Forecast	Calendar Day Variance 145	 Award Value: Executed Modifications Approved Change Ord Current Contract Value Incurred Cost: 	s: ers: e (1 + 2 + 3): - PERCENT COMPLETE	5.2 5.2 5.2	
Date of Award: Date of Award: Notice to Proceed: Original Substantial Completion Current Substantial Completion Elapsed Time from NTP: <u>Milestones Milestones Milestone 1 - Contract Substantial </u>	Duration: Original Contract	Contract	03/07/14 300 558 448 Forecast	Calendar Day Variance 145 0	 Award Value: Executed Modifications Approved Change Ord Current Contract Value Incurred Cost: 	s: ers: e (1 + 2 + 3): - PERCENT COMPLETE	5.2 5.2 5.2	
Date of Award: Date of Award: Notice to Proceed: Original Substantial Completion Current Substantial Completion Elapsed Time from NTP: <u>Milestones Milestones Milestone 1 - Contract Substantial </u>	Duration: Original Contract	Contract	03/07/14 300 558 448 Forecast	Calendar Day Variance 145	 Award Value: Executed Modifications Approved Change Ord Current Contract Value Incurred Cost: 	s: ers: e (1 + 2 + 3): - PERCENT COMPLETE	5.2 5.2 5.2	
Date of Award: Date of Award: Notice to Proceed: Original Substantial Completion Current Substantial Completion Elapsed Time from NTP: <u>Milestones Milestones Milestone 1 - Contract Substantial </u>	Duration: Original Contract	Contract	03/07/14 300 558 448 Forecast	Calendar Day Variance 145 0	 Award Value: Executed Modifications Approved Change Ord Current Contract Value Incurred Cost: 	s: ers: e (1 + 2 + 3): - PERCENT COMPLETE	5.2 5.2 5.2	
Date of Award: Date of Award: Notice to Proceed: Original Substantial Completion Current Substantial Completion Elapsed Time from NTP: <u>Milestones Milestones Milestone 1 - Contract Substantial </u>	Duration: Original Contract	Contract	03/07/14 300 558 448 Forecast	Calendar Day Variance 145 0 0	 Award Value: Executed Modifications Approved Change Ord Current Contract Value Incurred Cost: 	s: ers: e (1 + 2 + 3): - PERCENT COMPLETE	5.2 5.2 5.2	
Date of Award: Date of Award: Notice to Proceed: Original Substantial Completion Current Substantial Completion Elapsed Time from NTP: <u>Milestones Milestones Milestone 1 - Contract Substantial </u>	Duration: Original Contract	Contract	03/07/14 300 558 448 Forecast	Calendar Day Variance 145 0 0 0	 Award Value: Executed Modifications Approved Change Ord Current Contract Value Incurred Cost: 	S: ers: e (1 + 2 + 3): - PERCENT COMPLETE from 3/7/2014 to 05/29/15	5.2 5.2 5.2	



CONSTRUCTION PHOTOGRAPHS

SOUTHWESTERN YARD - Aerial photo as of March 2, 2018.



SOUTHWESTERN YARD – Main Shop.



GREENLINE TIE-IN - Installing overhead catenary system.



GREENLINE TIE-IN – Trackwork and overhead catenary system installation.





AVIATION/CENTURY STATION – Painting the exposed steel on the platform canopy columns and beams.



AVIATION/CENTURY STATION – Platform rebar installation at the service building exit corridor.



WESTCHESTER STATION-Removal and placement of steel tabs at NB and SB outriggers.



TPSS - TPSS 1. Ductbank and riser conduit installation from MH-COM-013B to the Bent 3W column.



TPSS - TPSS 2. Trench excavation and installation of copper cable for the grounding grid around the DWP Disconnect Switch and Pullbox.



UG#3 - Installation of formwork for NB emergency walkway.



UG#3 - Installation of rebar for center wall.



HYDE PARK STATION - Welding canopy.



PARK MESA - Placement of curb and gutter at 59th street.



UG4 – Installation of falsework for roof deck.



UG4 – Installation of epoxy rebar dowels for SB emergency walkway.

CONSTRUCTION PHOTOGRAPHS (Continued)



LEIMERT PARK STATION - Preparing roof section for concrete placement.



EXPOSITION/CRENSHAW STATION - Concrete placement for station roof section.



TUNNELING – Installing handrail adjacent to CP-4.

(0)

APPENDIX

PROJECT COST STATUS – SOUTHWESTERN YARD

SCC CODE	DESCRIPTION	original Budget	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		FORECAST
			PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	VARIANCE
10	GUIDEWAYS	0	0	0	40,000	40,000	40,000	40,000	40,000	40,000	40,000
20	STATIONS	0	0	0	0	0	0	0	0	0	0
30	SUPPORT FACILITIES (Y & S)	85,546,835	0	85,189,999	945,772	86,400,611	3,695,745	42,287,201	945,772	86,757,447	1,567,448
40	SITEWORK\SPECIAL CONDITIONS	35,932,000	0	38,273,000	170,000	40,510,448	997,618	28,569,027	170,000	40,721,118	2,448,118
50	SYSTEMS	25,784,616	0	32,991,000	0	33,115,119	978,440	16,859,585	0	33,115,119	124,119
	(10-50) CONSTRUCTION	147,263,451	0	156,453,999	1,155,772	160,066,179	5,711,803	87,755,813	1,155,772	160,633,685	4,179,686
60	RIGHT-OF-WAY	99,910,000	0	100,000,000	0	102,474,206	0	102,418,610	0	102,420,623	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	664,566	33,626,532	317,048	27,545,716	313,091	36,337,738	2,698,107
90	PROJECT CONTINGENCY	13,659,732	0	17,106,370	0	0	0	0	(1,468,864)	7,807,954	(9,298,416)
TOTAL		296,434,278	0	307,200,000	1,820,338	296,166,917	6,028,851	217,720,139	(0)	307,200,000	(0)
C0991	PAINT & BODY SHOP PROJECT										
DESCRIPTION		ORIGINAL	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		FORECAST
		BUDGET	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	VARIANCE
861301 DIV 22 PAINT & BODY SHOP		11,000,000	0	11,000,000	531,543	10,290,696	391,273	3,670,674	0	11,000,000	0
										•	

 GRAND TOTAL
 307,434,278
 0
 318,200,000
 2,351,882
 306,457,613
 6,420,124
 221,390,813
 (0)
 318,200,000

 NOTE:
 EXPENDITURES ARE CUMULATIVE THROUGH MARCH 3, 2018.
 506,457,613
 6,420,124
 221,390,813
 (0)
 318,200,000

PROJECT COST ANALYSIS

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

Original Budget:

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

Current Budget:

The Board in May 2015 approved an increase for the funding for the Southwestern Yard by \$22.0 million to increase the LOP budget to \$307.2 million to allow for the award of designbuild 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 current project forecast is \$318.20 million. However, there was a reallocation of forecast within the SCC-30 (Support Facilities), SCC-80 (Professional Services), and SCC-90 (Project Contingency).

Commitments:

The commitments are cumulative through March 3, 2018. Total commitments increased by \$2.35 million for this period due to the following:

- SCC-10
 - Walsh/Shea Corridor Contractors commitments increase by \$0.04 million.
- SCC-30
 - Hensel Phelps/Herzog JV commitments increase by \$1.22 million.
- SCC-40
 - Hensel Phelps/Herzog JV commitments increase by \$0.17 million.
- SCC-50
 - No change to commitments to report.
- SCC-60
 - No change to commitments to report.
- SCC-80
 - Professional services such as legal, construction management and labor commitment decrease by \$0.93 million.

The \$306.46 million in commitments to date represents 96.3% of the current budget.

Expenditures:

The expenditures are cumulative through March 3, 2018. The total expenditures increased by \$6.42 million for this period due to the following:

- SCC-10
 - o Walsh/Shea Corridor Contractors expenditure increase by \$0.04 million.
- SCC-30
 - Hensel Phelps/Herzog JV expenditure increase by \$3.78 million.
- SCC-40
 - Hensel Phelps/Herzog JV expenditure increased by \$1.00 million.
- SCC-50
 - $\circ~$ Hensel Phelps/Herzog JV expenditure increase by \$0.98 million.
- SCC-60
 - No change to Right-of-Way expenditure.
 - SCC-80
 - Hensel Phelps/Herzog JV, agency expenditure and professional services expenditure increase by \$0.63 million.

The \$221.39 million in expenditures to date represents 69.58% 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	t 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	ncludes design engineering, project management assistance, construction management support services, legal counsel, igency 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.						