Westside Purple Line Extension Section 1 Project



WESTSIDE PURPLE LINE EXTENSION SECTION 1 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).

APRIL 2016

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PROJECT SUMMARY

LOCATION: Los Angeles / Beverly Hills DESIGN CONSULTANT: Parsons / Brinckerhoff				CONSTRUCTION MANAGEMENT CONSULTANT: WEST, a Joint Venture CONTRACTOR: Skanska, Traylor and Shea, a Joint Venture						
Jet Grouti	ng on Wilshi	re Boulevard		WORK COMPLETED PAST MONTH						
			 C1045 Wilshire/Western AFC submittal in progress C1045 Wilshire/La Brea AFC submittal in progress C1045 Wilshire/La Cienega 85% design submittal in progress C1045 Wilshire/La Cienega 85% design under review C1045 Tunnel 100% design review complete C1045 Systems/Trackwork 85% design review complete C1045 Pile operation began southside Wilshire Blvd. C1045 Temporary TBM power substation cable pulling underway C1045 Jet grouting underway at Wilshire/Western & Wilshire/La Brea areas C1045 Wilshire/La Brea street deck panels fabrication begun C1045 Wilshire/La Brea street deck panels fabrication begun C1045 Tar sump removed at South La Brea C1056 Substantial completion reached on SCE ducts & vaults 							
EXPENDITURE STATUS (\$ In Millions)						SCHEDULE ASSESSMENT				
(*	CURRENT	EXPENDED	PERCENT	MAJOR SCHEDULE	PRIOR	CURRENT				
ACTIVITIES	BUDGET	AMOUNT	EXPENDED	ACTIVITIES	PLAN	PLAN	VARIANCE WEEKS			
				Environmental						
DESIGN	\$159.2	\$122.5	76.9%	FEIS / FEIR	N/A	05/31/12	Complete			
RIGHT-OF-WAY	\$175.6	\$132.9	75.7%	Design		ļ				
CONSTRUCTION	\$1,740.3	\$391.7	22.5%	PE Notice to Proceed	N/A	01/12/11	Complete			
				Final Design complete	03/22/17	03/22/17	0			
OTHER	\$1,079.3	\$101.9	9.4%	Right-of-Way						
TOTAL	\$3,154.4	\$749.0	23.7%	All parcels available*	12/31/15	12/31/15	0			
Current Budget includes En	vironmental/Pl	lanning and Fir	nance Costs.	Construction - Main D	sign / Puild	Contract				
AREAS OF CONCERN				Construction - Main De Notice to Proceed	01/12/15	01/12/15	Complete			
				Construction complete	11/08/23	11/08/23	0			
				* Parcels related to main D						
ROW ACQUISITION	PLAN	AVAILABLE	REMAINING	CRITICAL ACTIVITIES	/ 3 MONTH L	OOK AHEAD				
				- C1045 Dewatering well						
PERMANENT PARCELS	15	14	1	- C1045 Wilshire/La Bre		•	•			
TEMPORARY PARCELS	4	4	0	- C1056 Wilshire/La Cienega AUR: Power relocation work continues - C1045 Temporary tunnel ventilation design submittals						
	4	4	U	- C1045 Temporary tunner ventilation design submittais - C1045 Wilshire/La Brea decking installation						
				- C1045 Wilshire/Fairfax traffic control installation for pile installation						
TOTAL PARCELS	19	18	1	- C1045 Wilshire/La Bre						

PROJECT OVERVIEW & STATUS

Section 1 of the Westside Purple Line Extension Project is the first of three sections to be designed and constructed as part of the Los Angeles County Metropolitan Transportation Authority (LACMTA) Measure R Program. The program was approved by Los Angeles County voters in November 2008 and provides a half-cent sales tax to finance new transportation projects. In April 2012, the three sections of the Project were environmentally cleared and adopted by LACMTA Board of Directors.

Section 1 will extend the existing Purple Line by 3.92 miles beginning at the Wilshire/Western Station. From this station, the twin tunnel alignment will travel westerly within the existing Wilshire Boulevard right-of-way. Stations will be located at the intersections of Wilshire/La Brea, Wilshire/Fairfax, and Wilshire/La Cienega. All three of the station boxes will be located within the Wilshire Boulevard right-of-way with station portals extending to off-street entrances. Two of the stations, Wilshire/La Brea and Wilshire/Fairfax are within the jurisdiction of the City of Los Angeles. The Wilshire/La Cienega Station is within the City of Beverly Hills jurisdiction.

<u>Design</u>

The Engineering Management Services (EMS) team continues to provide design support to the Wilshire/La Cienega Advanced Utility Relocations (AUR) contract, the Design/Build Contract, and the Division 20 Maintenance-of-Way and Non-Revenue Vehicle Building 61S Contract.

For the Wilshire/Fairfax AUR Contract (C1055), the production of record drawings is continuing to reflect the as-built conditions.

For the Wilshire/La Cienega Station AUR Contract (C1056), support to Metro continues with traffic control requests for revised Worksite Traffic Control Plans for the contractor to comply with the Memorandum of Agreement (MOA) between Metro and the City of Beverly Hills; and also with the City of Los Angeles Department of Transportation where the traffic control plans extends beyond the City of Beverly Hills jurisdiction at San Vicente Boulevard. Technical documents are being produced in support of change notices. A fulltime field engineering representative continues to support construction activities.

For the Division 20 Maintenance-of-Way and Non-Revenue Vehicle Building 61S Contract (C1078), support to Metro continues with responding to RFI's and submittals, design updates, and the 6th Street Bridge coordination. *Continued to participate in weekly meetings to review design updates on the Alternative A-1 Building design, as approved by the Metro Board on February 25, 2016.*

The team continues to attend design task force meetings with Metro and the C1045 Contractor for Tunnels, Stations, Trackwork, Systems and Systems Integration Testing in preparation for the design development and reviews. Support continues in the review of final design submittals, responding to RFI's, and assisting in preparation of change notices. *Design resolution meetings occurred for the Wilshire/Western Interface Chamber (Shaft) and the Wilshire/La Brea Station 100% packages. Design submittals under review were the shoring design for the Wilshire/Fairfax Station, jet grouting, instrumentation, and systems design submittals for traction power and radio.*

The C1045 Contractor, Skanska, Traylor and Shea (STS), and their final design team, Parson's Transportation Group (PTG), have identified the design work into six distinct design units. They are:

- 1. Design Unit 1 Wilshire/Western Interface Chamber (Shaft)
- 2. Design Unit 2 Wilshire/La Brea Station
- 3. Design Unit 3 Wilshire/Fairfax Station
- 4. Design Unit 4 Wilshire/La Cienega Station
- 5. Design Unit 5 Tunnels
- 6. Design Unit 6 Systems/Traffic/Trackwork

Each design unit package will be submitted and evaluated at each of the following phases; 60%, 85%, 100%, Approved for Construction (AFC) and Issued for Construction (IFC). If required, critical design units can be advanced as Advanced Partial Design Units (APDU's) to support ongoing construction activities.

Design activities are well underway with the involvement of every discipline and design task force meetings are occurring weekly related to each design unit.

"Over-the-shoulder" design reviews and design comment resolution meetings are occurring with STS, PTG, Metro and the EMS team prior to each major design submittal. Monthly Metro Fire/Life/Safety meetings are occurring.

Design Unit	Percentage	Submittal Date
DU# 1 - Western	AFC	6/8/2016
DU# 2 - La Brea	AFC	6/20/2016
DU# 3 - Fairfax	100%	6/14/2016
DU# 4 - La Cienega	85%	4/18/2016
DU# 5 - Tunnels	AFC	6/23/2016
DU# 6 - Systems	100%	6/14/2016

The status of the design submittals are as follows:

STS is continuing with the required contractual submittals.

Major Contract Procurement

All contracts for the Project have been awarded.

Construction

Follow-on work in the Wilshire/Fairfax Station area by AT&T is anticipated to complete in May 2016 and LADWP Power is anticipated to complete in October 2016. This will complete all AUR work at this location, prior to giving full access to the C1045 Design/Build contractor to begin construction of the Wilshire/Fairfax Station.

On April 28, 2016, the C1056 contractor completed Milestone 1, acceptance of all SCE power vaults, and ducts. This was accomplished 2 ½ months ahead of schedule. The contractor is continuing with the City of Beverly Hills sewer, water and storm drain relocations. Work is on schedule for substantial completion in December 2016.

The C1045 contractor began pile installation for the Wilshire/La Brea Station in mid-December 2015. The contractor has focused his efforts on the north side of the station, before making the traffic control switch to begin pile installation on the south side of Wilshire Boulevard. *The traffic control switch occurred on the weekend of April 15, 2016 and pile installation is scheduled to begin on May 3, 2016.*

The installation of dewatering wells on the north side of the Wilshire/La Brea Station is nearing completion.

The C1045 contractor has received approvals from the City of Los Angeles for the support of excavation to begin installation of deck beams and concrete decking for the Wilshire/La Brea Station. *Installation is planned to begin on June 10, 2016.*

Metro has completed the construction of the new tar sump facility at the Wilshire/La Brea South construction staging area. The C1045 contractor will then proceed to demolish the existing tar sump once the traffic control switch has been completed from the north to the south side of Wilshire Boulevard. *This work has been completed by the contractor.*

The contractor is continuing with the construction of the Tunnel Boring Machine (TBM) power substation and is planned to complete mid-June 2016. The purchase order for the two TBMs has been placed with Herrenknecht Tunneling Systems USA, Inc.

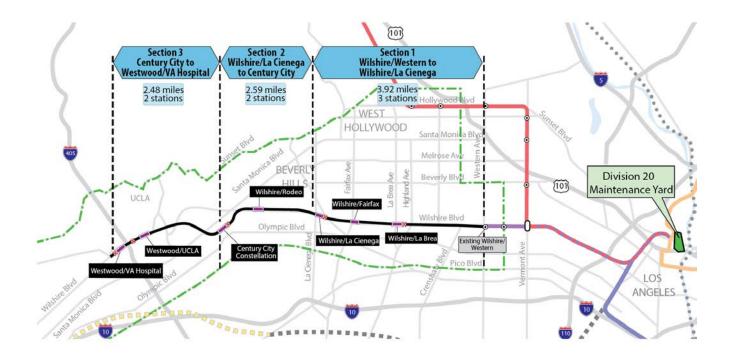
The Beverly Hills City Council staff is reviewing the Memorandum of Agreement. Approvals by the Beverly Hills City Council and the MTA Board are expected by mid-2016.

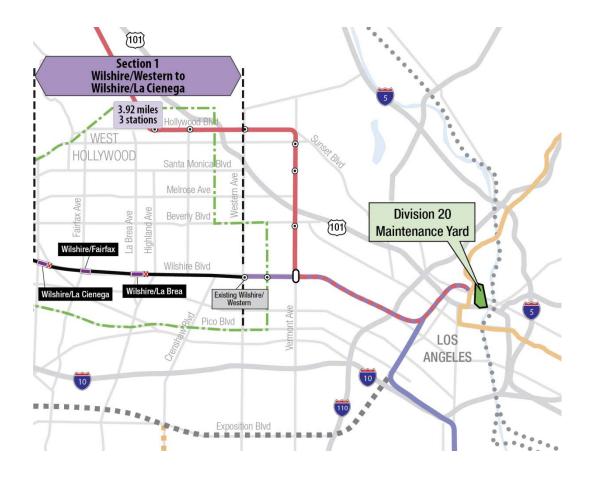
The C1045 contractor has access to all properties to construct the Project.

MANAGEMENT ISSUES

No Management Issues this period.

PROJECT ALIGNMENT by SECTIONS





PROJECT ALIGNMENT SECTION 1

BASE PROJECT SCOPE

Section 1 of the Westside Purple Line Extension Project is the first of three sections to be designed and constructed as part of the Los Angeles County Metropolitan Transportation Authority (LACMTA) Measure R Program. The program was approved by Los Angeles County voters in November 2008 and provides a half-cent sales tax to finance new transportation projects. In April 2012, the three sections of the Project were environmentally cleared and adopted by LACMTA Board of Directors.

Section 1 will extend the existing Purple Line by 3.92 miles beginning at the Wilshire/Western Station. From this station, the twin tunnel alignment will travel westerly within the existing Wilshire Boulevard right-of-way. Stations will be located at the intersections of Wilshire/La Brea, Wilshire/Fairfax, and Wilshire/La Cienega. All three of the station boxes will be located within the Wilshire Boulevard right-of-way with station portals extending to off-street entrances. Two of the stations, Wilshire/La Brea and Wilshire/Fairfax are within the jurisdiction of the City of Los Angeles. The Wilshire/La Cienega Station is within the City of Beverly Hills jurisdiction.

The Wilshire/La Brea Station box will be located under the center of Wilshire Boulevard in between Detroit Street and Orange Drive. A double crossover will be located east of the station box. The station entrance will be on the northwest corner of Wilshire Boulevard and La Brea Avenue.

The Wilshire/Fairfax Station box will be located under the center of Wilshire Boulevard west of Fairfax Avenue to west of Ogden Drive. The station entrance will be on the southeast corner of Wilshire Boulevard and Orange Grove Avenue.

The Wilshire/La Cienega Station box will be located under the center of Wilshire Boulevard immediately east of La Cienega Boulevard. A double crossover will be located east of the station box. The station entrance will be on the northeast corner of Wilshire Boulevard and La Cienega Boulevard. Since the station will be the terminus station for Section 1, tail tracks will be located west of the station box.

Contract C1034 – Wilshire/Fairfax Exploratory Shaft

Metro constructed an exploratory shaft to observe ground conditions prior to the award of Contract C1045. The location of the exploratory shaft was adjacent to the future Wilshire/Fairfax Station. The construction of the shaft included furnishing and installing monitoring instruments, ventilation, and record and report instrumentation data during the excavation of the shaft. After construction of the shaft was maintained for an observation time period. Afterwards, the shaft was dismantled and the site backfilled in a condition acceptable to the property owner. The contract was substantially completed on October 31, 2014.

Contract C1048 – Wilshire/La Brea Advanced Utility Relocations

The work scope of this contract included the relocation of existing LADWP power, water utilities and a sewer line within the construction limits of the Wilshire/La Brea Station. The contractor was responsible for working in streets, procuring materials, and coordinating with the utility owner. The contractor constructed the new facilities in accordance with the utility plans and specifications, provided traffic control, restored streets, and supported utility crews installing cabling and during cut-over of the existing utilities. The contract was substantially completed on October 27, 2014.

Contract C1055 – Wilshire/Fairfax Advanced Utility Relocations

The work scope of this contract included the relocation of existing LADWP power and water utilities within the construction limits of the Wilshire/Fairfax Station. The contractor was responsible for working in streets, procuring materials, and coordinating with the utility owner. The contractor constructed the new facilities in accordance with utility plans and specifications, provided traffic control, restored streets, and supported utility crews installing cabling and during cut-over of the existing utilities. The contract was substantially completed on October 7, 2015.

Contract C1056 – Wilshire/La Cienega Advanced Utility Relocations

Relocate existing City of Beverly Hills water, storm drain and sewer utilities within the construction limits of the Wilshire/La Cienega Station. The contractor is responsible for working in streets, procure materials, and coordinate with the utility owner. The contractor is to construct the new facilities in accordance with utility plans and specifications, provide traffic control, restore streets, and support utility crews during cut-over of the existing utilities.

<u>Contract C1045 – Tunnels, Stations, Trackwork, Systems and Systems Integration</u> <u>Testing</u>

The procurement of this contract utilizes a two-step approach with the submittal of qualification statements through a Request for Qualification (RFQ) process, prequalification of qualified proposers followed by the release of a Request for Proposals (RFP) soliciting technical and price proposals with an option at Metro's discretion for Best and Final Offers (BAFO).

The Design/Build contract provides for final design and construction of the infrastructure along the 3.92 mile alignment. Contract scope includes demolition and removal of structures and clearing sites to facilitate construction operations. The structures to be constructed include twin bored tunnels, complete with cross-passages and walkways, including all mechanical, electrical and finish work. A retrieval shaft will be constructed to the west of the existing Wilshire/Western Station for extraction of the tunnel boring machines. Three underground stations are to be constructed, two with double-crossovers, and the terminus station to include tail tracks. Each station has a single entrance plaza with stairs, escalators and elevators which meet ADA requirements. The scope of work includes all architectural finishes, mechanical, electrical, systems and equipment including train control, traction power, communications, trackwork and the system tie-in to the existing Metro Purple Line, testing and commissioning.

Contract C1078 – Division 20 Maintenance-of-Way and Non-Revenue Vehicle Building 61S

The Design/Build contract provides for final design and construction of a new Maintenance-Of-Way (MOW) stores and Non-Revenue Vehicle (NRV) building at the south end of the existing Division 20 Yard (Location 61S). The displacement of the existing MOW stores building and NRV facility are due to the proposed turn-back facility site in the yard.

BASE PROJECT SCOPE (Continued)

Metro Furnished Equipment

Metro will procure separate contracts to provide the 34 Heavy Rail Vehicles (HRV) and the Universal Fare System (UFS) necessary to operate the extension to the Purple Line. The scope of the HRV contract includes design, manufacturing, testing and delivery of the vehicles. The scope of the UFS contract includes design, fabrication and installation of equipment at the three stations and system testing.

Start Up

The commencement of pre-revenue operations will be determined by Metro. Generally, all systems integration testing will have been completed and passed. All testing will be required to include and pass a "stress test" of maximum operational service levels to be acceptable. Pre-Revenue Operations include train runs, especially those involving multiple trains, on the integrated and fully operational extension; rehearsal of expected revenue operations scenarios; as well as abnormal and emergency scenarios in which random combinations of system interactions are tested; equipment "burned-in"; and training of Metro personnel who will eventually operate and maintain the extension and for emergency services personnel. Activities occurring during Pre-Revenue Operations are carried out by a designated Metro Project Rail Activation Group.

KEY MILESTONES SIX-MONTH LOOK AHEAD

	Milestone Date	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16
C1045 Wilshire/La Brea South Side Pile Installation	05/03/16						
C1045 Traffic Decking Fabrication	05/13/16						
C1045 Initial Excavation and Decking Installation at Wilshire/La Brea Begins	06/10/16						
C1045 TBM Temporary Power Work Complete	06/10/16						
C1045 Wilshire/La Brea Muck Shaft Excavation Begins	06/15/16						
C1045 Wilshire/Fairfax Mobilize Pile Work	07/10/16						
C1045 Wilshire/La Brea Under Deck Excavation Begins	07/15/16						
C1045 Wilshire/La Brea Ventilation System Installation	07/18/16						
C1045 Wilshire/La Brea Dewatering Begins	08/05/16						
C1045 Wilshire/La Cienega Sound Wall Starts	09/13/16						
C1045 Wilshire/La Cienega Sound Wall Completes	10/15/16						
MTA Staff MTA Board Action FTA (Federal Transit Administration)							

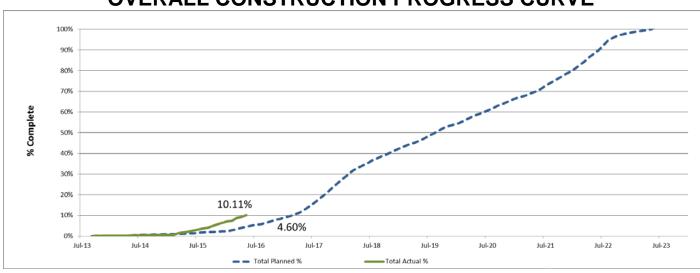
PROJECT SUMMARY SCHEDULE C Primavera Systems, Inc. Data Date: 30-Apr-16 Current Date: 20-May-16 13:48 MASTER SCHEDULE APRIL 2016 Purple Line Level 1 Management Schedule PLE1 Level 1 Schedule (W) Los Angeles County Metropolitan Transport 21-Apr-20 02-Jun-22 09-Jun-23* 08-Nov-23* 31-May-12 A 22-Jan-09 A 31-May-12 A 01-Feb-17 28-Oct-10 A 04-Jan-11 A 27-Jun-11 A 23-Mar-12 A 26-Apr-12 A 09-Aug-12 A 31-Oct-12 A 24-Jan-13 A 01-Feb-17 31.48m-17 16.44m-23 11.44m-23 11.44m-23 11.44m-23 11.44m-23 12.44m-22 2.34m-23 2.34m-23 11.44m-23 11.44m-23 11.44m-23 16.44m-23 16.44m-23 16.44m-23 16.44m-23 16.44m-23 16.44m-23 16.44m-23 17.44m-23 22.44m-53 23.44m-53 24.44m-53 24.44m-54 24.44m-5 16-Jun-23 30-Oct-14 A 08-Aug-23 23-Sep-21 08-Aug-23 31-Mar-17 21-May-14 A 12-Jan-15 A 07-Nov-15 A 25-Apr-18 17-Dec-19 09-Aug-10 A 21-Feb-12 A 0144Feb.18 0144Feb.18 27-Anc:20 27-Anc:20 24-Anc:20 01-Oct-20 01-Oct-20 09-Unr-23 09-Unr-23 09-Unr-23 09-Vor-23 08-Nor-23 28-May-13 A an-13 A an-13 A 31-Dec-14 A 04-Nov-14 A 13-Feb-09 A 04-Sep-12 A 13 A 15-Feb-19 13 A 20-May-13 A -14 A 14 A 15 A 12-J 4 6 356 125 232 189 789 õ o Section 1 (NTP + 3070 CD 06/09/23) C1034 Contract: Exploratory Shaft in the Vicinity of Fairfax Statior al EIS/EIR to FTA for the FEIS/FEIR (NOA) and Decking - Section W/W to Li Project W/W to La Cienega Sch Section 1 - C1045 Into Final Desig Milestone
 Summary Final EIS 20 ole for port Facilities and Yards Vork e Close-Out C-1045 Con Contractor Site Closeout Project Clo Finance Ch Actual Work Remaining Work Critical Remaining V ntal Documen Preliminary Engineering Pre-Revenue Operations Start-up stside Purple Line Exte and C 1045 Contract: Prin dvanced Utilities Re t-of-Way (ROW) icket Vending Mach roperty Acquisition nished E leavy Rail Vehicles Special Conditions WS-SC1070 Fini FTA Process / App Contract Procuren actor Site nitial Planning ign / Build Final Design 120 130 gineering WS-1060 WS-1100

April 2016

SCHEDULE MEASUREMENTS

	Status	Change from Last Period	Comment
Forecast Revenue Service	11/8/2023	None	
FFGA Revenue Service	10/31/2024	None	
Final Design Progress:			
Contract C1045	80.73%	2.70%	
Contract C1078	30.75%	0.45%	
Construction Contracts Progre	ss*:		
Contract C1048	100.00%	0.00%	Completed on schedule
Contract C1045	7.92%	0.66%	
Contract C1055	100.00%	0.00%	Completed on schedule
Contract C1056	67.16%	3.32%	On schedule. Milestone 1 was achieved ahead of schedule.
Contract C1078	4.18%	0.52%	Baseline Schedule was approved in March 2016

*Note: Physical completion assessment reflects work completed and work in progress.



OVERALL CONSTRUCTION PROGRESS CURVE

The actual overall construction progress is 10.11% versus a planned of 4.60% through April 2016. The progress curves represent a composite percentage for the physical progress of work performed to complete the Project's construction contracts, including the major Design-Build (C1045), the three Advanced Utility Relocations (C1048, C1055 & C1056), and the Division 20 MOW & NRV Building 61S (C1078).

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

	Initial Procurement	Submittal	Delivery	Installation
Tunnel Boring Machine	1/29/16	5/30/16	6/28/17	2/18/18
Deliver to Site - Station HVAC System	5/7/18	5/6/19	5/11/19	5/20/20
Deliver to Site - Ventilation Fans	2/16/18	4/1/19	6/15/19	8/3/20
Deliver to Site - Elevators	3/3/18	5/3/18	6/11/19	4/16/20
Deliver to Site - Escalalators	7/1/18	8/31/18	10/9/19	6/14/21
Heavy Rail Vehicles	7/16/15	3/1/19	8/1/21	1/1/22
Ticket Vending Machines	2/15/19	10/8/21	9/8/21	9/8/22

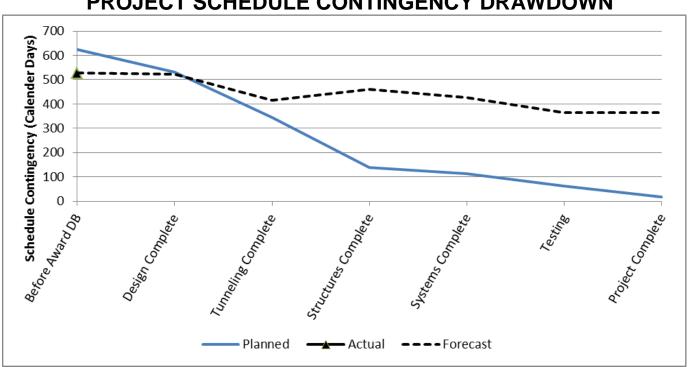
MAJOR EQUIPMENT DELIVERY

DESIGN BUILDER'S (C1045) LONG LEAD ITEM LIST

ltem	Initial Procurement	Approved Submittal	Delivery	Installation Date
rocure / Deliver Fiber Optic Cable	2-Apr-16	23-Apr-16	22-Jul-16	10-Jun-20
Procure / Deliver Innerduct	2-Apr-16	23-Apr-16	22-Jul-16	7-Apr-20
Procure / Deliver Radio Cable	21-Mar-16	13-Apr-16	12-Jul-16	18-May-20
CADA: Procure / Deliver Devices	16-Mar-16	8-Apr-16	7-Jul-16	21-Jan-21
Procure / Deliver SCADA Cable	16-Mar-16	8-Apr-16	7-Jul-16	7-Apr-20
Procure / Deliver TPS Bonding Cable	23-Nov-16	20-Dec-16	20-Mar-17	10-Jun-21
Procure / Deliver Traction Power Cable	23-Nov-16	20-Dec-16	20-Mar-17	5-May-20
PS: Procure/Deliver BLS Equipment & Devices	23-Nov-16	20-Dec-16	20-Mar-17	28-Apr-20
Ifgr/Assemble/Wire DC Rectifier/Transformer - La Cienega TPSS	27-Feb-17	21-Mar-17	19-Jun-17	5-Oct-21
Ifgr/Assemble/Wire HV Metering Switchgear - La Cienega TPSS	27-Feb-17	21-Mar-17	19-Jun-17	5-Oct-21
Ifgr/Assemble/Wire DC Switches - Fairfax GBS	20-Jun-17	13-Jul-17	11-Oct-17	1-Apr-21
Ifgr/Assemble/Wire HV Metering Switchgear - Fairfax GBS	20-Jun-17	13-Jul-17	11-Oct-17	1-Apr-21
Ifgr/Assemble/Wire DC Rectifier/Transformer - La Brea TPSS	19-Feb-17	19-Jul-17	17-Oct-17	21-Jul-20
Ifgr/Assemble/Wire HV Metering Switchgear - La Brea TPSS	17-Jun-17	14-Nov-17	12-Feb-18	21-Jul-20
CTV: Assemble/Rack & Stack/Factory Test COM Equipment for Western	28-Sep-16	13-Jul-16	11-Oct-16	2-Nov-21
CTV: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	28-Sep-16	1-Nov-16	30-Jan-17	25-Oct-21
CTV: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	17-Jan-17	1-Mar-17	30-May-17	10-Jun-21
CCTV: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	31-May-17	30-Jun-17	28-Sep-17	29-Oct-21
CTS: Assemble/Rack & Stack/Factory Test COM Equipment for Western	16-Mar-16	15-Apr-16	14-Jul-16	12-Nov-21
TS: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	15-Jul-16	13-Aug-16	11-Nov-16	26-May-21
TS: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	14-Nov-16	16-Dec-16	16-Mar-17	12-Mar-21
	14-NOV-16 17-Mar-17		16-Mar-17 17-Jul-17	
CTS: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega		18-Apr-17		17-Aug-21
MER MGMT: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	23-Jun-16	23-Jul-16	21-Oct-16	8-Mar-22
MER MGMT: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	24-Oct-16	25-Nov-16	23-Feb-17	28-Oct-21
MER MGMT: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	24-Feb-17	25-Mar-17	23-Jun-17	1-Feb-22
IRE ALARM: Assemble/Rack & Stack/Factory Test COM Equipment for Western	16-Mar-16	15-Apr-16	14-Jul-16	21-Nov-21
IRE ALARM: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	15-Jul-16	13-Aug-16	11-Nov-16	22-Sep-21
IRE ALARM: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	14-Nov-16	16-Dec-16	16-Mar-17	7-May-21
IRE ALARM: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	17-Mar-17	18-Apr-17	17-Jul-17	27-Oct-21
GAS DETECTION: Assemble/Rack & Stack/Factory Test COM Equipment for Western	11-May-16	11-Jun-16	9-Sep-16	28-Sep-20
AS DETECTION: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	12-Sep-16	14-Oct-16	12-Jan-17	15-Nov-21
AS DETECTION: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	13-Jan-17	10-Feb-17	11-May-17	2-Jul-21
AS DETECTION: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	12-May-17	14-Jun-17	12-Sep-17	4-Nov-21
VTRUSION: Assemble/Rack & Stack/Factory Test COM Equipment for Western	11-May-16	11-Jun-16	9-Sep-16	8-Sep-20
TRUSION: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	12-Sep-16	12-Jan-17	22-Nov-16	6-Dec-21
ITRUSION: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	13-Jan-17	10-Feb-17	11-May-17	22-Jul-21
NTRUSION: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	12-May-17	14-Jun-17	12-Sep-17	15-Nov-21
ADIO: Assemble/Rack & Stack/Factory Test COM Equipment for Western	3-May-16	2-Jun-16	31-Aug-16	11-Jun-20
ADIO: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	1-Sep-16	6-Oct-16	4-Jan-17	18-Aug-21
ADIO: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	5-Jan-17	2-Feb-17	3-May-17	9-Apr-21
ADIO: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	4-May-17	3-Jun-17	1-Sep-17	16-Jun-21
CADA: Assemble/Rack & Stack/Factory Test COM Equipment for Western	16-Mar-16	15-Apr-16	14-Jul-16	29-Sep-20
CADA: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	15-Jul-16	13-Aug-16	11-Nov-16	3-Aug-21
CADA: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	14-Nov-16	16-Dec-16	16-Mar-17	23-Mar-21
CADA: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	17-Mar-17	18-Apr-17	17-Jul-17	19-Aug-21
EISMIC: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	11-May-16	9-Sep-16	25-Jul-16	16-Mar-22
EISMIC: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	12-Sep-16	14-Oct-16	12-Jan-17	5-Nov-21
EISMIC: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	13-Jan-17	10-Feb-17	11-May-17	22-Feb-22
ELEPHONE: Assemble/Rack & Stack/Factory Test COM Equipment for Western	11-May-16	11-Jun-16	9-Sep-16	9-Sep-20
ELEPHONE: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	12-Sep-16	14-Oct-16	12-Jan-17	9-Feb-22
ELEPHONE: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	13-Jan-17	10-Feb-17	11-May-17	9-Sep-21
ELEPHONE: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	12-May-17	14-Jun-17	12-Sep-17	4-Jan-22
PIS: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	27-May-16	29-Jun-16	27-Sep-16	20-Jan-22
PIS: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	28-Sep-16	1-Nov-16	30-Jan-17	27-Oct-21
PIS: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	31-Jan-17	1-Mar-17	30-May-17	9-Feb-22
PS: Manufacture/Factory Test COM Equipment for La Brea	4-May-16	3-Jun-16	1-Sep-16	9-Sep-21
PS: Manufacture/Factory Test COM Equipment for Fairfax	2-Sep-16	7-Oct-16	5-Jan-17	16-Jun-21
PS: Manufacture/Factory Test COM Equipment for La Cienega	6-Jan-17	3-Feb-17	4-May-17	23-Aug-21
ROCURE GAS/WATERPROOFING MATERIALS FOR LA BREA STATION	4-Mar-17	3-Mar-17	1-Jun-17	17-Aug-17
ABRICATE CANOPY STRUCTURE - FAIRFAX STATION	27-Oct-16	26-Oct-16	24-Jan-17	7-Jul-22
ABRICATE CANOPY STRUCTURE - LA CIENEGA STATION	25-Jan-17	24-Jan-17	24-Apr-17	2-Aug-22
Ifgr/Assemble/Wire DC Switchgear - La Cienega TPSS	27-Feb-17	3-May-17	1-Aug-17	5-Oct-21
Ifgr/Assemble/Wire AC Switchgear - La Cienega TPSS	27-Feb-17	3-May-17	1-Aug-17	18-Oct-21
fgr/Assemble/Wire DC Switchgear - La Brea TPSS	2-Aug-17	11-Oct-17	9-Jan-18	21-Jul-20
fgr/Assemble/Wire AC Switchgear - Fairfax GBS	2-Aug-17	11-Oct-17	9-Jan-18	1-Apr-21
Ifgr/Assemble/Wire AC Switchgear - La Brea TPSS	10-Jan-18	15-Mar-18	13-Jun-18	15-Apr-21
TC: Procure/Deliver Switch Machines	2-Apr-16	18-Jun-16	16-Sep-16	20-Oct-21
OMPLETE MOCK-UP, FABRICATE CANOPY STRUCTURE - LA BREA STATION	29-Jun-16	24-Jan-17	24-Apr-17	23-Aug-22
AB/DELIVER SOLDIER PILES / BEAMS - TBM RETRIEVAL SHAFT	11-Jun-16	15-Jul-16	13-Oct-16	17-Jul-17
AB/DELIVER SOLDIER PILES / BEAMS - FAIRFAX STATION	29-Apr-16	2-Jun-16	31-Aug-16	11-Jul-16
AB/DELIVER SOLDIER FILES / BEAMS - LA CIENEGA STATION	12-Oct-16	15-Nov-16	13-Feb-17	24-Feb-17
TC: Assemble/Rack & Stack TC&C Equipment for Western	6-Jul-17	26-Oct-17	24-Jan-18	10-Jun-20
TC: Assemble/Rack & Stack TC&C Equipment for Vestern	6-Jul-17	26-Oct-17 26-Oct-17	24-Jan-18 24-Jan-18	12-Jul-20
TC: Assemble/Rack & Stack ATC Equipment for La Brea	22-Sep-17	26-Oct-17 11-Jan-18	24-Jan-18 11-Apr-18	12-Jui-21 12-Apr-21
TC: Assemble/Rack & Stack ATC Equipment for La Cienega	12-Feb-18	30-May-18	28-Aug-18	30-Sep-21
ABRICATE TRACK MATERIALS	10-Oct-18	8-May-19	6-Aug-19	23-Oct-20
TC: Procure/Deliver WS Equipment & Devices	1-Dec-15 7-Sep-16	20-May-16	18-Aug-16	30-Sep-21
TC: Drogurg/Deliver Components & Mataziala Mantazia		6-Apr-17	5-Jul-17	10-Jun-20
TC: Procure/Deliver Components & Materials - Western		C A= 17	E 101.47	40 1 101
TC: Procure/Deliver Components & Materials - Western TC: Procure/Deliver Components & Materials - La Brea TC: Procure/Deliver Components & Materials - Fairfax	7-Sep-16 7-Sep-16 7-Sep-16	6-Apr-17 6-Apr-17	5-Jul-17 5-Jul-17	12-Jul-21 12-Apr-21

CRITICAL PATH NARRATIVE

The critical path for the Westside Purple Line Extension Project begins with the procurement process for the C1045 Design/Build contract, mobilization of the design team for the selected contractor, and the start of final design for station boxes and tunnels. Final design is concurrent with the C1055 Wilshire/Fairfax Advanced Utility Relocation and C1056 Wilshire/La Cienega Advanced Utility Relocation contracts being performed by Metro's AUR Contractors and by third party utility companies. Upon completion of advanced utility relocations, the Design/Build contractor begins installation of soldier piles, first on the north side of the Wilshire/La Brea Station box, and then on the south side. Street decking is then installed, the station structural box is excavated, and invert concrete is placed. Tunneling then begins, first driving eastbound from Wilshire/La Brea to Wilshire/Western. TBMs are removed though a retrieval shaft at Wilshire/Western, reassembled at Wilshire/La Brea, and then driven westbound to Wilshire/La Cienega. Following construction of cross passages, the critical path continues through construction power, systems integration and testing, and pre-revenue operations.



PROJECT SCHEDULE CONTINGENCY DRAWDOWN

PROJECT SCHEDULE CONTINGENCY DRAWDOWN ANALYSIS

The project schedule contingency drawdown curve is based on a November 8, 2023 Revenue Service Date (RSD).

PROJECT COST STATUS

SCC CODE	DESCRIPTION	ORIGINAL BUDGET					COMMITMENTS		EXPENDITURES		CURRENT FORECAST		CURRENT BUDGET / FORECAS
CODE		DODOLI	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	VARIANCE		
10	GUIDEWAY & TRACK ELEMENTS	388,294	-	388,294	-	380,970	4,095	5,915	-	388,294			
20	STATIONS, STOPS, TERMINALS, INTERMODAL	440,621	-	440,621	-	435,105	2,790	8,170	-	440,621			
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	43,323	-	43,323	-	34,198	-	-	-	42,252	(1,07		
40	SITEWORK & SPECIAL CONDITIONS	751,566	-	754,491	697	764,890	5,575	369,697	-	774,363	19,87		
50	SYSTEMS	113,574	-	113,574	-	97,897	310	7,927	-	113,574			
	CONSTRUCTION SUBTOTAL (10-50)	1,737,378	-	1,740,303	697	1,713,060	12,770	391,709	-	1,759,104	18,80		
60	ROW, LAND, EXISTING IMPROVEMENTS	175,634	-	175,634	-	175,634	8,747	132,890	-	175,634			
70	VEHICLES	160,196	-	160,196	-	-	-	-	-	145,493	(14,70		
80	PROFESSIONAL SERVICES	412,710	-	414,785	165	260,801	5,360	185,086	-	417,650	2,86		
	SUBTOTAL (10-80)	2,485,918	-	2,490,918	862	2,149,495	26,878	709,685	-	2,497,881	6,96		
90	UNALLOCATED CONTINGENCY	248,592	-	248,592	-	-	-	-	-	286,034	37,44		
100	FINANCE CHARGES	375,470	-	375,470	-	-	-	-	-	331,065	(44,40		
	TOTAL PROJECTS 465518 & 865518 (10-100)	3,109,980	-	3,114,980	862	2,149,495	26,878	709,685	-	3,114,980			
	ENVIRONMENTAL/PLANNING - 405518	8,505	-	8,505	-	8,505	-	8,505	-	8,505			
	ENVIRONMENTAL/PLANNING - 465518	30,865	-	30,865	-	30,865	-	30,852	-	30,865			
	TOTAL PROJECTS 405518 & 465518 (ENV / PLAN'G)	39,370	-	39,370	-	39,370	-	39,357	-	39,370			
	TOTAL PROJECTS 405518, 465518 & 865518	3,149,350	-	3,154,350	862	2,188,864	26,878	749,042	-	3,154,350			

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH MARCH 2016

PROJECT COST ANALYSIS

Original Budget

The Original Budget of \$3.1 billion reflects the Board approved Life of Project Budget, July 24, 2014, plus Finance Charges of \$0.4 billion.

Current Budget and Current Forecast

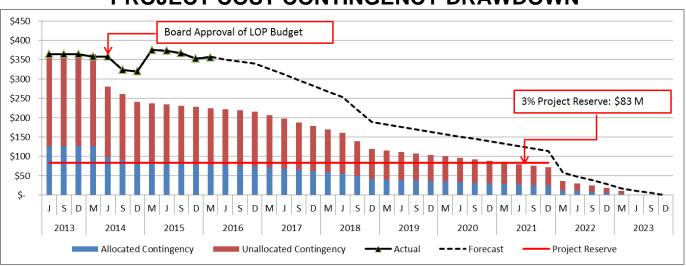
The Current Budget and Current Forecast remains the same this period at \$3.2 billion.

Commitments

The Commitments increased by \$0.9 million primarily due to Environmental Services, Advanced Utility Relocations, and an executed Contract Modification for the Design/Build Contract C1045. The \$2.2 billion in Commitments to date represents 69.4% of the Current Budget.

Expenditures

The Expenditures are cumulative through March 2016. The Expenditures increased by \$26.9 million this period primarily for costs associated with the Design/Build Contract C1045, Advanced Utility Relocations, Environmental Services, Real Estate Acquisitions, AUR Memorandum of Understanding (MOA) with the City of Beverly Hills, Legal Services, Engineering Management Services, Construction Management Support Services, and Metro Project Administration. The \$749.0 million in Expenditures to date represents 23.7% of the Current Budget.



PROJECT COST CONTINGENCY DRAWDOWN

PROJECT COST CONTINGENCY DRAWDOWN ANALYSIS

The Current Budget of \$3.2 billion (plus Finance Charges of \$0.4 billion) includes a project cost contingency of \$320.6 million or 10.2% of the total project. The project cost contingency of \$320.6 million is based upon the Life of Project (LOP) Budget that was approved by the Board in July 2014. The LOP Budget also included an allocated contingency amount of \$72.0 million. The allocated contingency is an amount to cover anticipated but unknown contract modifications issued by Metro where applicable to specific contracts within each Standard Cost Category (SCC).

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

The project cost contingency drawdown curve is based on a November 8, 2023 Revenue Service date.

The allocated contingency decreased this period by \$0.1 million due to an executed Contract Modification for the Design/Build Contract C1045.

	Original Contingency	Previous	Current	To-Date	Remaining Contingency	
	(Budget)	Period Period		i u-Dale	(Forecast)	
Unallocated Contingency	248,592	37,442	0	37,442	286,034	
Allocated Contingency	71,963	(1,697)	(124)	(1,822)	70,142	
Total Contingency	320,555	35,745	(124)	35,620	356,176	

DISADVANTAGED BUSINESS ENTERPRISE (DBE)

RACE-CONSCIOUS DISADVANTAGED BUSINESS ENTERPRISE (RC-DBE) STATUS

(Reporting Data as of April 1, 2016)

Contract C1045 Westside Purple Line Extension, Section 1 Design-Build

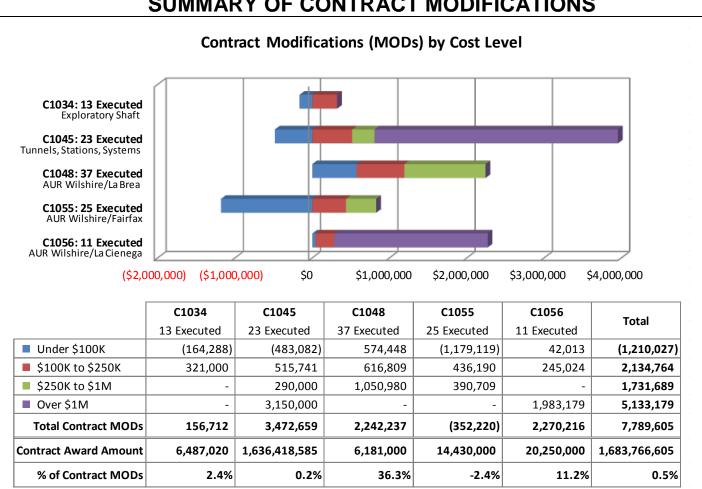
- RC-DBE Goal Design 20%
- Current RC-DBE Commitment \$12,853,485 (20.25%)
- Current RC-DBE Participation \$4,520,809.98 (15.30%)
- Eleven (11) Design DBE subcontractors have been identified for Design

•	DBE Goal – Construction	17%
•	Current DBE Commitment	\$258,241,829 (17%)
•	Current DBE Participation	\$1,391,162 (0.53%)

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

PROJECT LABOR AGREEMENTS (PLA) STATUS

Contract C1045 Westside Purple Line Extension, Sec (Reporting Data as of April 25, 2016)	tion 1 Design-Build
Targeted Worker Goal	40.00%
Targeted Worker Current Participation	69.61%
 Apprentice Worker Goal Apprentice Worker Current Participation	20.00% 13.98%
 Disadvantaged Worker Goal Disadvantaged Worker Current Participation 	10.00% 10.03%



SUMMARY OF CONTRACT MODIFICATIONS

Percent of Contract MODs equals the Total Contract MODs divided by the Contract Award Amount.

Thirteen Contract MODs with a total value of \$0.2 million have been executed since the award of Contract C1034 - Exploratory Shaft Construction by Innovative Construction Solutions (ICS). The contract has been completed and is closed out.

Twenty-three Contract MODs with a total value of \$3.5 million have been executed since the award of Contract C1045 – Tunnels, Stations, Trackwork, Systems and Systems Integration Testing by Skanska -Traylor - Shea, a Joint Venture.

Thirty-seven Contract MODs with a total value of \$2.2 million have been executed since the award of Contract C1048 – Advanced Utility Relocations at Wilshire/La Brea by Metro Builders & Engineering Group, LTD. The contract has been completed and is closed out.

Twenty-five Contract MODs with a total value of <\$0.4> million have been executed since the award of Contract C1055 – Advanced Utility Relocations at Wilshire/Fairfax by W. A. Rasic Construction Company, Inc. The contract has been completed and is closed out.

Eleven Contract MODs with a total value of \$2.3 million have been executed since the award of Contract C1056 – Advanced Utility Relocations at Wilshire/La Cienega by Steve Bubalo Construction Co.

FINANCIAL/GRANT STATUS

SOURCE	(A) ORIGINAL BUDGET	(B) TOTAL FUNDS	TAL TOTAL		(D) (D/B) COMMITMENTS		(E) (E/B) EXPENDITURES		(F) (F/B) BILLED TO FUNDI SOURCE	
		ANTICIPATED	AVAILABLE	\$	%	\$	%	\$	%	
FEDERAL - SECTION 5309 NEW STARTS	\$1,250.000	\$1,250.000	\$165.000	\$1,250.000	100%	\$165.000	13%	\$165.000	13%	
FEDERAL CMAQ	\$12.171	\$12.171	\$12.171	\$12.171	100%	\$12.171	100%	\$4.786	39%	
FEDERAL SECTION 5309 - ALTERNATIVES ANALYSIS	\$0.512	\$0.512	\$0.512	\$0.512	100%	\$0.512	100%	\$0.512	100%	
MEASURE R - TIFIA LOAN	\$856.000	\$856.000	\$0.000	\$0.000	0%	\$0.000	0%	\$0.000	0%	
MEASURE R 35%	\$869.178	\$874.178	\$485.143	\$839.965	96%	\$485.143	55%	\$302.950	35%	
STATE STIP RIP	\$2.568	\$2.568	\$2.568	\$2.568	100%	\$2.568	100%	\$2.568	100%	
STATE CAPITAL PROJECT LOANS - OTHERS *	\$83.648	\$83.648	\$83.648	\$83.648	100%	\$83.648	100%	\$50.898	61%	
CITY OF LOS ANGELES	\$75.273	\$75.273	\$0.000	\$0.000	0%	\$0.000	0%	\$0.000	0%	
TOTAL	\$3,149.350	\$3,154.350	\$749.042	\$2,188.864	69.4%	\$749.042	23.7%	\$526.714	16.7%	

EXPENDITURES ARE CUMULATIVE THROUGH MARCH 2016

ORIGINAL BUDGET BASED ON JULY 2014 BOARD APPROVED LOP BUDGET

* OTHERS INCLUDE TDA ADMINISTRATION (\$4.1M), LTF GENERAL REVENUES (\$1.8M), AND LEASE REVENUES (\$37.8M)

STATUS OF FUNDS ANTICIPATED

FEDERAL SECTION 5309 NEW STARTS: FTA Grant CA-03-0824 for \$65 million was awarded on June 2, 2014. FTA Grant CA-03-0824-01 for \$100 million was awarded on August 10, 2015. Funds are available for drawdown. *Metro submitted to the FTA a grant application of \$100 million in April 2016. Grant is expected to be awarded in June 2016.*

FEDERAL SECTION 5309 ALTERNATIVE ANALYSIS: FTA Grant CA-39-0006 of \$0.5 million was awarded on July 25, 2014. Funds are available for drawdown.

MEASURE R – TIFIA LOAN (Transportation Infrastructure Finance & Innovation Act): TIFIA Loan was executed on May 21, 2014 for \$856 million. First disbursement is planned for FY 2018.

MEASURE R 35%: \$481.4 million have been allocated to the Project through FY16. Funds are available for drawdown.

STATE STIP RIP: State grant application of \$8.4 million, of which \$2.6 million has been allocated to this project, was awarded on July 26, 2007. Funds are available for drawdown.

CMAQ (Congestion Mitigation & Air Quality): FTA Grant CA-95-X264 for \$12.2 million was awarded on July 27, 2015. Funds are available for drawdown.

Total Project Staffing – FTES Plan 📃 140.0 FULL TIME EQUIVALENT (FTE) 120.0 100.0 80.0 60.0 40.0 20.0 0.0 APTIS Mayils Junits 141-25 AUBIS Sepila octa NOVIA Decila Jan 15 Feb-15 Mar.15 Sepils octils NOVIS Decils Mar-16 141.74 AUBILA 5-eb-16 por 16 May-16 140-26 lan 16

STAFFING STATUS Total Project Staffing – FTES

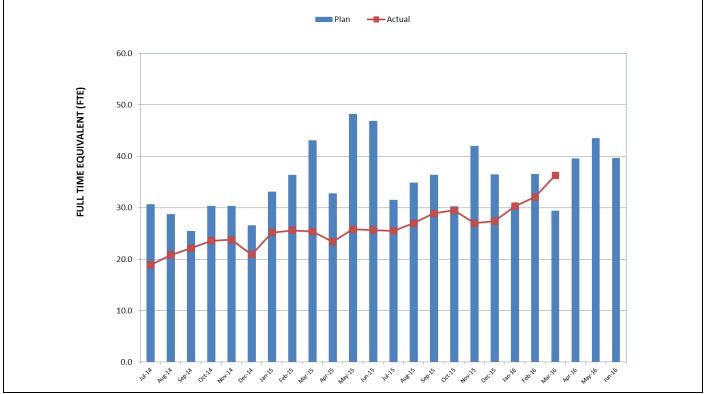
TOTAL PROJECT STAFFING

The overall FY16 Total Project Staffing Plan averages 88.2 FTEs per month.

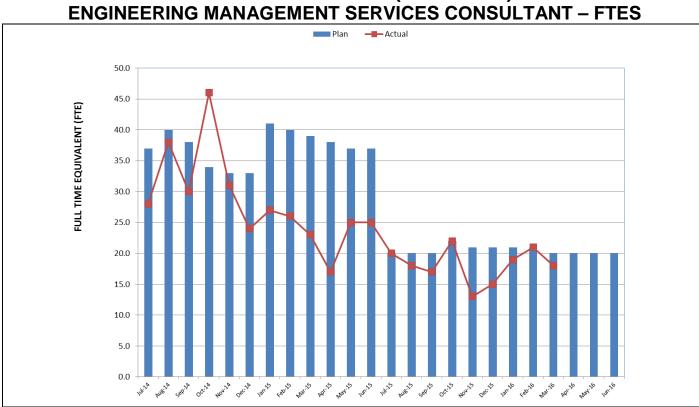
For March 2016, there were a total of 34.2 FTEs for MTA's Project Administration Staff and 54.3 FTEs for Consulting Staff. The total project staffing for March 2016 was 88.5 FTEs.

METRO STAFFING – FTES Plan 50.0 45.0 FULL TIME EQUIVALENT (FTE) 40.0 35.0 30.0 25.0 20.0 15.0 10.0 5.0 0.0 sublich service occurs would be the service service waiting 451-5 484-5 100-5 14-5 post gent 000-5 400-5 port pert 100-5 100-5 port port port port 101.74

CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONSULTANT – FTES



STAFFING STATUS (Continued)



STAFFING STATUS (Continued) ENGINEERING MANAGEMENT SERVICES CONSULTANT – FTES

REAL ESTATE STATUS

Purple Line Extension Section 1 - Real Estate Status Summary											
Description	Number of Parcels	Certified	Appraisals Completed	Offers Made	Agreements	Condemnation	Relocations		Parcels		
Description					Signed	Filed	Required	Completed	Available		
Full Takes	9	9	9	9	2	7	109	109	9		
Part Takes	6	6	6	5	1	3	0	0	5		
TCE	4	4	4	4	1	4	0	0	4		
Total Parcels	19	19	19	18	4	14	109	109	18		

The total count of the 19 parcels include the two Division 20 parcels required for constructing the MOW/NRV Building 61S.

QUALITY ASSURANCE STATUS

C1045 – Tunnels, Stations, Trackwork, Systems and Systems Integration Testing

- Attended weekly Project staff meetings and progress meetings with the Contractor Skanska/Traylor/Shea (STS).
- Ongoing discussions and coordination with the Engineering Management Services Consultant (EMSC) and Construction Management Support Services Consultant (CMSSC) support staff for quality oversight.
- Reviewed daily inspection reports from the Contractor/Field Technician and CMSSC oversight inspection personnel. Inspections show that the work is predominately compliant.
- Reviewed and provided comments on quality related submittals construction work plan, project specifications, product data and quality manuals.
- STS issued three Non-Conformance Reports related to soldier pile installation. All issues have been resolved with Engineer of Records disposition.
- Ongoing monitoring of Contractor's (STS) quality process during field modifications due to adverse conditions during the installation of waler/cap beams at Wilshire/La Brea muck shaft. RFI process under review for modification of cap beams due to interference of LADWP duct bank. Metro QA is conducting surveillance in order to capture all processes and documentation involved which can affect the overall quality of the structure and its members.

C1056 – Advanced Utility Relocations – Wilshire/La Cienega

- Attended weekly progress meeting with the Contractor.
- Reviewed and provided comments on quality related submittals.
- Attended Readiness Review Meetings.
- Reviewed daily inspection reports from the Contractor/Field Technician and CMSC oversight inspection personnel.
- Reviewed Monthly Quality Control Materials Testing Report for submittal to City of Beverly Hills.

C1078 – Division 20 MOW and NRV Building 61S

- Attended weekly Project Staff Meetings and Progress Meetings with the Contractor.
- Reviewed and provided comments on quality related submittals.

ENVIRONMENTAL STATUS

- Limited noise and vibration monitoring performed by AUR and DB Contractors. No significant noise or vibration exceedances were reported for work performed.
- Conducted Environmental Awareness Training for Construction Noise, Stormwater BMP, and Archeo/Paleo for C1056, C1045 and Third Party Contractors.
- Reviewed C1056 and C1045 Contractor submittals and tracked monitoring and reporting obligations in accordance with contract Specifications and EIR requirements.
- Participated in weekly C1056 and C1045 contract coordination meetings.
- Conducted weekly Environmental Construction Progress Meetings and monthly Environmental Mitigation (MMRP) update meeting with C1045 contractor.
- Reviewed Weekly Construction Noise Compliance Reports prepared by the Independent Compliance Monitor and submitted to Metro and City of Beverly Hills.
- Participated in various Construction Work Plan Workshops and Readiness Review Meetings prior to start of new construction activities.
- Reviewed and tracked contractor monitoring and reporting requirements.
- Evaluated progress and upcoming schedules of DB construction activities.
- Conducted field environmental monitoring and spot inspections for construction noise, stormwater BMPs, dust and cultural resources for C1056, C1045, and Third Party AUR work activities.
- Ambient Noise Measurements conducted at Wilshire/Western area (street and upper floor levels). Final Report under review.
- Explored options with City of Los Angeles Sanitation District and the Regional Water Quality Control Board regarding dewater discharge to sewer and/or storm drain.
- Coordinated with Real Estate and Community Relations for placement of vibration monitors.
- Coordinated placement of stationary Noise Monitoring Terminals and threshold limits for alert notifications and audio triggers.
- Reviewed Wastewater Management Plan. Tracking progress of discharge approvals.
- Finalized SHPO correspondence addressing LACMA West May Co. historic structure.
- Addressed dry well discovery found during piling with archaeologist.
- Reviewed Low Impact Design Plan for potential sustainability design initiative.
- Worked with Contractor to initiate applicable fugitive dust EIR measures, including street watering and wheel washing.
- Coordinated Wilshire/Fairfax Parking Management Plan with Metro Planning.
- Worked with DB contractor to address deficiencies in Waste Disposal Reporting.

CONSTRUCTION RELATIONS STATUS

- Produced and distributed 24 construction work notices for advance utility relocations and construction activities.
- Made Project Presentations at the following: Greater Wilshire NC, Fairfax bus relocations, Lunch Meet Up for Eat, Shop, Play Wilshire, Mid-City West NC, Windsor Village Association, MOW 20 Design Advisory Group, American Red Cross: Prepare Koreatown, Fairfax residents/Council District 5 and Business Interruption Fund Workshop.
- Fielded and addressed the following: Dust issue at 8th/La Brea businesses, noise complaint at Wilshire/La Brea, Wilshire/Crenshaw Yard homeless complaint, bus stop relocations at Wilshire/Fairfax, and water shut off for Wilshire/La Cienega.
- Visited and updated businesses and residences at future station locations to discuss utility relocations, business profiles and Eat, Shop, Play Wilshire promotional campaign for businesses.
- Attended the following meetings: Construction Management, Advanced Utility Relocations, Construction Relations, Environmental Mitigations, STS Third Party Workshop, Beverly Hills MOA, Marketing, Social Media, Eat, Shop, Play, Bus Relocations and Stops, and DOT/Elected Officials.
- Started "Fortune Fridays" where participants are entered into a drawing each Friday to win \$50 if they check in at a participating ESP Wilshire Business.
- Updated website, Facebook, Twitter as needed.
- Continued with the "Eat, Shop, Play Spotlight" campaign to advertise and promote businesses along Wilshire Boulevard. Two businesses are being highlighted per month.

CREATIVE SERVICES STATUS

- Continued to refine project artwork opportunities and locations.
- Responded to RFIs and submittals.
- Participated in Design Build Workshops and document reviews.
- Presented at the Building 61S Design Advisory Working Group Meetings.
- Continue to solicit background information from stakeholders for community profile to be provided to project artists.

SAFETY & SECURITY STATUS

- There no injuries on the Project during April 2016.
- Participated in scheduled readiness review meetings to ensure compliance with approved work plans and contract specifications.
- AUR Construction activities (day and night), Design Builder's demolition & construction activities (also day and night) and the C1078 Maintenance-of-Way Building site continue to be monitored to document contractor compliance with contract specifications.
- Attended weekly Progress Meetings, and other project meetings to evaluate Contractors Safety Program compliance with contract requirements.
- Continue to work with Program Management and Construction Relations staff to monitor issues related to public concerns regarding noise, traffic and transient encampment hazards, as well as public interactions with the construction crews.
- Continue to work with the D/B Contractor to insure adequate Construction Safety Staffing in compliance with the Contract.
- Began tracking a list of submittals and other documents required from the Design Builder prior to construction activities that fall under the scope of Tunnel Safety Orders.
- Hosted Monthly All Hands Safety Meeting for all Westside Purple Line Extension Contractors (including environmental contractors) on April 26, 2016.
- March data are presented below. Construction Safety Staff continue to work with all contractors to insure accurate data.
- March 2016 Contractor Work Hours (Design & Construction): 46,439
- Contractor Project to Date Work Hours (Design & Construction)(through 3/31/2016): 627,733
- Total Project to Date Work Hours (Contractor & the IPO Staff) (through 3/31/2016): 870,649
- Project to Date Recordable Injury Rate: 0.5 (Two Recordable Injuries)(each rate is per 200,000 work hours)(National Rate: 3.0)
- Project to Date Total Time Away Injury Rate: 0.2 (One Time Away From Work Injury)(National Rate: 1.7)
- Project to Date Total Days Away Rate: 41.3 (180 Days Away From Work) (No National Rate Published)
- National Rates for Heavy and Civil Construction (NAICS Code 237) are for Calendar Year 2014, published by USBLS in December 2015.

THIRD PARTY AGREEMENT STATUS

Third Party	Type of Agreement	Forecast Execution Date	Required Need Date	Status/ Comments
City of Los Angeles (LA)	Amendment to Master Cooperative Agreement	N/A	N/A	Parties will work under 2003 MCA.
City of Beverly Hills (BH)	MOAs (La Cienega only)	9/14 (AUR) 6/16 (D/B)	9/14 (AUR) 8/16 (D/B)	City of Beverly Hills approved the MOA for the C1056 Wilshire/La Cienega AUR contract on August 19, 2014. Metro continues to work with the City to establish an MOA for the C1045 Design/Build contract.
Los Angeles Department of Water and Power	Amendment to Memorandum of Understanding	N/A	N/A	Metro and LADWP will continue to work under the terms of the previous Cooperative Agreement.
Los Angeles County Public Works	Letter of Agreement	4/11	3/12	Executed
Caltrans	Amendment	8/11	3/12	Executed
Private Utilities	LOA, MOU, MCA, or MUA	9/14	N/A	Metro is working with affected third party utilities under existing agreements except for Qwest/Century Link and Level 3. Draft agreements for Qwest/Century Link and Level 3, and a new agreement for SCE are all under review. In absence of an agreement, work is being performed by work orders.

ADVANCED UTILITY RELOCATION STATUS

- AT&T relocations at the Wilshire/Fairfax Station began in January 2015 and are anticipated to be completed in May 2016.
- AT&T relocations on Hamilton Drive in the Wilshire/La Cienega Station area were completed in July 2015. AT&T work for the remaining portion of the Wilshire/La Cienega Station area was temporarily put on hold to allow the gas, power and storm drain work to proceed. The AT&T work started back up in March 2016 and will be completed by the end of 2016.
- The LADWP Power relocations at the Wilshire/Fairfax Station are on-going and are anticipated to complete by October 2016.
- The Notice to Proceed (NTP) Wilshire/La Cienega AUR Contract (C1056) was issued on January 12, 2015. Construction began in late April 2015. On April 28, 2016, the C1056 contractor completed Milestone 1, acceptance of all SCE power vaults and ducts. This was accomplished 2 ½ months ahead of schedule. The contractor is continuing with the City of Beverly Hills sewer, water and storm drain relocations. Work is on track for substantial completion in December 2016.
- Relocation of City of Beverly Hills owned fiber lines began on November 30, 2015. Conduit work was completed in February 2016. Fiber pulling and splicing work to be performed by City of Beverly Hills approved Contractor and is anticipated for completion in May 2016.
- Gas Company relocations at the Wilshire/La Cienega Station were completed in March 2016.

PEAK HOUR AND NIGHTTIME CONSTRUCTION VARIANCES

Metro is actively pursuing extended hour variances/exemptions to accommodate the Project needs. Metro staff is working with the City of Los Angeles Bureau of Engineering and the Los Angeles Police Commission to obtain Peak Hour Exemptions and Nighttime Construction Variances. Current efforts center around extending the existing nighttime noise variances to accommodate advanced utility relocations at the Wilshire/La Brea and Wilshire/Fairfax Station sites as well as obtaining new nighttime noise variances and peak hour exemptions to allow night work and weekend work to accommodate the Wilshire/La Brea, Wilshire/Fairfax and Wilshire/Western piling operations for the Design/Build contractor.

- The Peak Hour Exemption for Wilshire/La Brea pile installation was approved by the City of Los Angeles on November 8, 2013. A revised application was approved in June 2015 with the new construction dates of November 11, 2015 to May 3, 2016. A revised application is with the City of Los Angeles for approval.
- The Peak Hour Exemptions for Wilshire/Fairfax and Wilshire/Western pile installations were approved by the City of Los Angeles on May 12, 2014. There will be a resubmittal with updated construction dates in early 2016.
- A Peak Hour Exemption was granted by the City of Los Angeles for the area near the Wilshire/La Cienega Station to allow for the spillover of traffic control devices from the City of Beverly Hills into the City of Los Angeles. An extension was granted in February 2016 extending the Peak Hour Exemption to April 29, 2016. *The City of Los Angles has granted a further extension to June 17, 2016.*
- The Nighttime Noise Variance for the Wilshire/La Brea Advanced Utility Relocation work has been extended to June 17, 2016 by the Los Angeles Police Commission.
- The Nighttime Noise Variance for the Wilshire/Fairfax Advanced Utility Relocation work has been extended to July 17, 2016 by the Los Angeles Police Commission.
- The Nighttime Noise Variance for pile installations at the Wilshire/La Brea Station has been extended to October 30, 2016 by the Los Angeles Police Commission. In addition, a new Nighttime Noise Variance was issued to support pile installation activities after 11pm. The activities after 11pm include setting of steel piles and pumping concrete to stabilize the piles.
- A new Nighttime Noise Variance for the decking and excavation work at Wilshire/La Brea has been issued by the Los Angeles Police Commission. This is in conjunction with the full street closure scheduled to begin on June 10, 2016.
- Nighttime noise variances for the five Construction Yards were approved by the Los Angeles Police Commission. The dates for the variances are from January 20, 2016 to July 15, 2016, at which time STS will be required to obtain the next six month extension. The five yards include North Wilshire/La Brea, South Wilshire/La Brea, Wilshire/Crenshaw, Wilshire/Western, and Wilshire/Fairfax.

CHRONOLOGY OF EVENTS

	
June 2007	Began Alternatives Analysis study
January 2009	Board approval of Alternatives Analysis study and next phase
February 2009	Began Draft Environmental Impact Statement / Report (EIS / EIR)
October 2010	Board approval of Draft EIS / EIR and selection of locally preferred alternative
January 2011	FTA approval to enter Preliminary Engineering
May 2011	Began Preliminary Engineering
April 2012	Board certification of Final EIS / EIR and adoption of project
July 2012	Completion of Exploratory Shaft final design
August 2012	FTA Record of Decision
September 2012	Began Real Estate Acquisition
November 2012	Began Final Design - C1048 - Advanced Utility Relocations contract – Wilshire/La Brea
November 2012	Began Final Design - C1055 - Advanced Utility Relocations contract – Wilshire/Fairfax
November 2012	Issued RFQ for C1045 Design / Build contract
December 2012	Began Final Design - C1056 - Advanced Utility Relocations contract – Wilshire/La Cienega
January 2013	Began C1034 Exploratory Shaft construction
February 2013	Received RFQ responses for C1045 Design / Build contract
June 2013	Issued RFP for C1045 Tunnels, Stations, Trackwork, Systems and Systems Integration Testing
June 2013	Beginning of C1055 AUR Wilshire/Fairfax Bid Period
July 2013	Submitted draft FFGA application

CHRONOLOGY OF EVENTS (Continued)

July 2013	Completed Final Design - C1048 - Advanced Utility Relocations contract – Wilshire/La Brea
July 2013	Submitted TIFIA loan application
August 2013	Began C1048 Advanced Utility Relocations contract – Wilshire/La Brea
August 2013	NTP for Construction Management Support Services Contract
January 2014	Submitted application to FTA requesting an FFGA
January 2014	Received RFP Proposals for Contract C1045
February 2014	Beginning of C1056 AUR Wilshire/La Cienega Bid Period
May 2014	FTA awarded FFGA
May 2014	Received TIFIA Loan
June 2014	Began C1055 Advanced Utility Relocations at Wilshire/Fairfax
July 2014	Metro Board approved staff recommendation to award Contract C1045 and approved Life-of-Project Budget
September 2014	Issued Invitation to Bid for Contract C1078
October 2014	Issued C1056 Contract Award
November 2014	Issued C1045 Contract Award
January 2015	Issued C1045 Contract Notice to Proceed
January 2015	Issued C1056 Contract Notice to Proceed
February 2015	Received Contract C1078 Bids
August 2015	Issued C1078 Contract Award
September 2015	Issued C1078 Contract Notice to Proceed
October 2015	Contract C1055 achieved Substantial Completion

Description: Westside Purple Line Extension Design-Build Contractor: SKANSKA - TRAYLOR - SHEA	Contract No. Status as of:	C1045 April 2	9, 2016	i		
Progress / Work Completed: - C1045 Tunnel 100% design review complete - C1045 Systems/Trackwork 85% design review complete - C1045 Wilshire/La Brea south side pile operation began - C1045 Tar sump removed Areas of Concern: None	Major Activities (In Progress): Wilshire/Western AFC design package Wilshire/La Brea AFC design package Wilshire/Fairfax 100% design package Wilshire/La Cienega 85% design review Wilshire/La Brea utility storm drain relocation Wilshire/La Brea south side pile installation Wilshire/La Brea south side pile installation Wilshire/La Brea north side installation of dewatering wells Wilshire/Western & La Brea jet grouting Wilshire/Fairfax soundwall installation Milshire/La Brea under deck utility support Wilshire/La Brea under deck utility support Wilshire/La Brea under deck utility support Wilshire/La Brea south side piles continue					
Schedule Summary:		Original Contract Dates	Time Extension	Current Contract	Forecast	Variance CDs
Date of Award: 11/04/14 Notice to Proceed: 01/12/15 Original Contract Duration: 3250 CD	Notice to Proceed (Estimated) Milestone 1: Substantial	01/12/15	0	01/12/15	01/12/15	0
Current Contract Duration: 3250 CD Elapsed Time from NTP: 473 CD	Completion Milestone 2:	06/09/23	0	06/09/23	06/09/23	0
	Stations available to UFS Milestone 3: Start of Integration Testing to ROC	10/07/22 01/10/23	0	10/07/22 01/10/23	10/07/22 01/10/23	0
	Milestone 4: Demobilization	12/06/23	0	12/06/23	12/06/23	0
	Milestone 5: Temporary Construction Easements	01/10/23	0	01/10/23	01/10/23	0
Physical Percent Complete:	Cost Summary 1. Award Value:	:		\$ I	n millic 1,636.4	ons
Physical completion: 7.92%*	 Executed Modification Approved Change C				3.5 0.0	
* Note: Physical completion assessment reflects work completed and work in progress.	4. Current Contract Value (1+2+3): 1,639.9 5. Incurred Cost: 396.7					

CONTRACT C1045 STATUS

Description: Wilshire/La Cienega AUR Contractor: Steve Bubalo Construction (Contract No. Co. Status as of:		29, 2016	i		
Progress / Work Completed: - C1056 Substantial Completion reached on SCE ducts & va - Storm Drain Laterals - North Wilshire Blvd - Gale Dr. to Tow - Storm Drain Laterals - North Wilshire Blvd - Hamilton to Gale - Sewer Line B Laterals - Hamilton to Gale Dr. - SCE Vault 6817- West of La Cienega Air Vents	ults - South Water Line er Dr North Wilshire wa le - Waterline at Wilsh	Major Activities (In Progress): - South Water Line La Cienega to Hamilton STA 24+25 to 26+95 - North Wilshire water shut down - Waterline at Wilshire & La Cienega intersection heading south - Sewer Line "C"- Lateral C8 reconstruction per RFI 113				
Areas of Concern: None	Major Activit					
Schedule Summary:		Original Contract Dates	Time Extension	Current Contract	Forecast	Variance CDs
Date of Award: 10/13/14	Notice to Proceed (Estimated)	01/12/15	0	01/12/15	01/12/15	0
Notice to Proceed:01/12/15Original Contract Duration:696 CDCurrent Contract Duration:696 CDElapsed Time from NTP:473 CD	Milestone 1: Milestone 2: Substantial Completion	07/13/16	0	07/13/16	04/28/16	76
Physical Percent Complete: Physical completion: 67.16%*	Cost Summa 1. Award Value: 2. Executed Modi	-	<u> </u>	\$I	n millic 20.3 2.3	
 Note: Physical completion assessment reflects work completed and work in progress. 		4. Current Contract Value (1+2+3):22.6				

CONTRACT C1056 STATUS

Description: Division 20 (MOW/NRV)	Contract No.	C1078				
Contractor: Clark Construction	Status as of:	April 2	9, 2016			
Progress / Work Completed: - Contractor prepared CO-00001 Revised Building 61S Location Design 0-30% - Metro completed independent TIA for CO-00001 and CO-00002	Major Activities (In Progress): - Contractor continued preparation of 30% design package per the modified location of the facility (Alternative A-1) - Contractor continued 85% DU#1 final design not affected by CO-00001 - Processing CN-00002 for reduction of parts storage expansion - Metro Issue CN-00005/RFP for Additional Track Design - Metro Issue CN-00004/RFP for Inspection Pit Track Location CMU Wall and Security Gate					
Areas of Concern: None	 Major Activities Next Period: Contractor to complete 30% design package Contractor to complete 85% DU#1 final design for Parts Storage Contractor to complete preparation of 85% DU#3 final design for System Communication which affected by CO-00001 Issue CN-00006 for 30% to IFC design for revised location of Building 61S per Metro Board direction Issue contract MOD for CO-00001 and CO-00002 					
Schedule Summary:		Original Contract Dates	Time Extension	Current Contract	Forecast	Variance CDs
Date of Award: 08/03/15	Notice to Proceed (Estimated)	09/30/15	0	0	09/30/15	0
Notice to Proceed:09/30/15Original Contract Duration:853 CDCurrent Contract Duration:853 CDElapsed Time from NTP:212 CD	Milestone 1: Substantial Completion	01/30/18	0	853	01/30/18	0
Physical Percent Complete:	Cost Summary: 1. Award Value:			\$1	n millic	ons
Physical completion: 4.18%	2. Executed Modifications:0.03. Approved Change Orders:0.6					
 Note: Physical completion assessment reflects work completed and work in progress. 	 Current Contract Valu Incurred Cost: 	ıe (1+2+3):			53.4 6.5	

CONTRACT C1078 STATUS

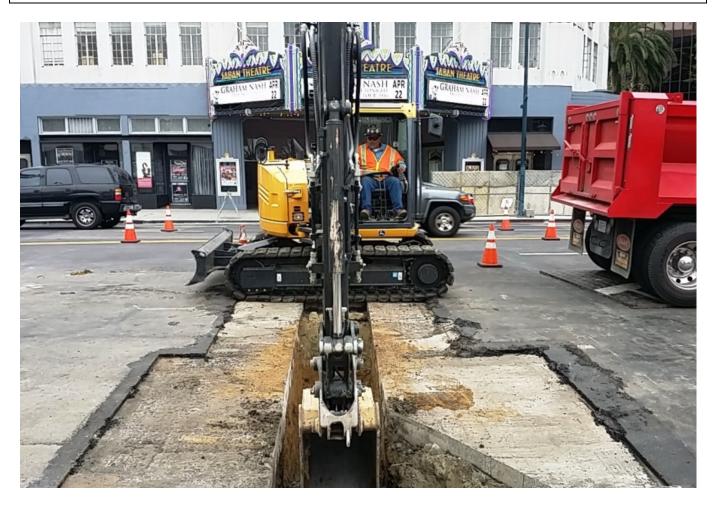


CONSTRUCTION PHOTOGRAPHS

C1045 Contractor Installing Electrical Metering Switchgear for Tunnel Operations

April 2016

Westside Purple Line Extension Section 1 Project Monthly Project Status Report



C1056 Contractor Excavating Sewer Lateral on Wilshire Boulevard

COST AND BUDGET TERMINOLOGY

Project Cost Descriptions

ORIGINAL BUDGET	The Original Project Budget as authorized by the Metropolitan Transportation Authority (Metro) Board.			
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, and 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 services, third party services, staff salaries, real estate and other expenses that is reported in Metro's Financial Information System (FIS).			
CURRENT FORECAST	The best estimate of the final cost of the Project when all checks have been issued and the Project is closed out. Current Forecast is composed of actual costs incurred to date, the best estimate of work remaining and a current risk assessment for each budgeted cost item.			
Cost Report by Element Descriptions				

CONSTRUCTION	Includes construction contracts. Cost associated with Guideways, Stations, Southwestern Yard, Sitework/Special. Conditions and Systems.
RIGHT-OF-WAY	Includes purchase cost of parcels, easements, right-of-entry permits, escrow fees, contracted real estate appraisals and tenant relocation.
VEHICLES	Includes the purchase of Heavy Rail Vehicles and spare parts for the Project.
PROFESSIONAL SERVICES	Includes design engineering, project management assistance, construction management support services, legal counsel, agency staff costs, and other specialty consultants.
CONTINGENCY	A fund established at the beginning of a project to provide for anticipated but unknown additional costs that may arise during the course of the Project.
PROJECT REVENUE	Includes all revenue received by Metro as a direct result of project activities. This includes cost sharing construction items, insurance premium rebates, and the like.

LIST OF ACRONYMS

ATC	Automatic Train Control
ATSAC	Automated Traffic Surveillance and Control
BAFO	Best and Final Offer
BIM	Building Information Modeling
BNSF	Burlington Northern Santa Fe Railway Company
BRT	Bus Rapid Transit
CADD	Computer Aided Drafting and Design
CALTRANS	California Department of Transportation
CCTV	Closed Circuit Television
CD	Calendar Day
CEQA	California Environmental Quality Act
СМ	Construction Manager
CMAQ	Congestion Mitigation and Air Quality Improvement Program
CMSSC	Construction Management Support Services Consultant
CN	Change Notice
CO	Change Order
COBH	City of Beverly Hills
COLA	City of Los Angeles
СРМ	Critical Path Method
CPUC	California Public Utilities Commission
CR	Camera Ready
CRMMP	Cultural Resource Monitoring and Mitigation Plan
CSPP	Construction Safety Phasing Plan
CTC	California Transportation Commission
CUD	Contract Unit Description
DB	Design Build
DBB	Design Bid Build
DOT	Department of Transportation
DWP	Department of Water and Power
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EMS	Engineering Management Services
EPBM	Earth Pressure Balance Machine
FAA	Federal Aviation Administration
FAR	Federal Acquisition Regulation
FD	Final Design
FEIS	Final Environmental Impact Statement
FEIR	Final Environmental Impact Report
FIS	Financial Information System
FLSR	Fire Life Safety Report
FONSI	Finding of No Significant Impact
FRA	Federal Railroad Administration
FSEIR	Final Supplemental Environmental Impact Report
FSEIS	Final Supplemental Environmental Impact Statement
L	

LIST OF ACRONYMS (Continued)

FTA	Federal Transit Administration
FTE	Full Time Equivalent
GBR	Geotechnical Baseline Report
GDSR	Geotechnical Dasenne Report
HMM	Hatch Mott MacDonald
HRT	
	Heavy Rail Transit
HRV	Heavy Rail Vehicle
IFB	Invitation for Bid
IPMO	Integrated Project Management Office
JV	Joint-Venture
LA	Los Angeles
LABOE	Los Angeles Bureau of Engineering
LABOS	Los Angeles Bureau of Sanitation
LABSL	Los Angeles Bureau of Street Lighting
LACFCD	Los Angeles County Flood Control District
LACMTA	Los Angeles County Metropolitan Transportation Authority
LADOT	Los Angeles Department of Transportation
LADPW	Los Angeles Department of Public Works
LADWP	Los Angeles Department of Water and Power
LAUSD	Los Angeles Unified School District
LAWA	Los Angeles World Airports
LAX	Los Angeles International Airport
LNTP	Limited Notice To Proceed
LONP	Letter Of No Prejudice
LOP	Life-of-Project
LPA	Locally Preferred Alternative
LRTP	Long Range Transportation Plan
LRV	Light Rail Vehicle
MCA	Master Cooperative Agreement
MIS	Major Investment Study
MMRP	Mitigation Monitoring and Reporting Plan
MOU	Memorandum of Understanding
MPSR	Monthly Project Status Report
N/A	Not Applicable
NEPA	National Environmental Protection Act
NOD	Notice of Determination
NPDES	National Pollution Discharge Elimination System
NTE	Not to Exceed
NTP	Notice To Proceed
000	Operations Control Center
OSHA	Occupational Health and Safety Administration
PA/VMS	Public Address/Visual Messaging Sign
PE	Preliminary Engineering

LIST OF ACRONYMS (Continued)

PEER	Permit Engineering Evaluation Report
PIP	Project Implementation Plan
PLA	Project Labor Agreement
PM	Project Manager
PMIP	Project Management Implementation Plan
PMOC	Project Management Oversight Consultant
PMP	Project Management Plan
P&P	Policies & Procedures
PR	Project Report
PRMMP	Paleontological Resource Monitoring Mitigation Plan
PSR	Project Study Report
QA	Quality Assurance
QAR	Quality Assurance Report
QC	Quality Control
QPSR	Quarterly Project Status Report
QTIB	Qualified Transit Improvement Bonds
RAMP	Real Estate Acquisition Management Plan
RCHAR	Rail Crossing Hazards Analysis Report
RCMP	Risk Assessment Management Plan
RFC	Request For Change
RFP	Request For Proposals
RFSC	Request for Special Consideration
RHA	Risk Hazard Analysis
RLPE	Red Light Photo Enforcement
ROC	Rail Operations Center
ROD	Record Of Decision
ROM	Rough Order of Magnitude
ROW	Right-Of-Way
RPZ	Runway Protection Zone
RSD	Revenue Service Date
SAV	Stand Alone Validator
SBCC	Steve Bubalo Construction Co
SCAQMD	Southern California Air Quality Management District
SCADA	Supervisory Control and Data Acquisition
SCC	Standard Cost Category
SCE	Southern California Edison
SCG	Southern California Gas Company
SCRRA	Southern California Regional Rail Authority
SHA	State Highway Account
SHPO	State Historic Preservation Office
SIT	System Integration Testing
SOQ	Statement of Qualification
SOV	Schedule Of Value
SOW	Statement Of Work

LIST OF ACRONYMS (Continued)

SP	Special Provision
SSMP	Safety and Security Management Plan
STB	Surface Transportation Board
STIP	State Transportation Improvement Program
STP	Surface Transportation Program
STV	STV Group
SWPPP	Storm Water Pollution Prevention Plan
TBD	To Be Determined
ТВМ	Tunnel Boring Machine
TCE	Temporary Construction Easement
TCRP	Traffic Congestion Relief Program
TIFIA	Transportation Infrastructure Finance and Innovation Act
TIGER	Transportation Investment Generating Economic Recovery
TPSS	Traction Power Substation
TRACS	Transit Automatic Control System
TVA	Threat Vulnerability Analysis
TVM	Ticket Vending Machine
UFS	Universal Fare System
USDOT	United States Department Of Transportation
VE	Value Engineering
WBS	Work Breakdown Structure
WP	Work Package
YOE	Year of Expenditure