Los Angeles County
Metropolitan Transportation Authority

Westside Purple Line Extension

Section 1 Project

MONTHLY PROJECT STATUS REPORT
APRIL 2017

Metro®

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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 2017

TABLE OF CONTENTS

Page No.

Project Summary…… 1

Project Overview & Status…… 2-4

Management Issues..... 5

Project Alignment by Sections…… 6

Project Alignment Section 1…… 7

Base Project Scope..... 8-10

Project Status

- Project Schedule
  - Key Milestones Six-Month Look Ahead…….. 11
  - Project Summary Schedule…… 12
  - Schedule Measurements…… 13
  - Overall Construction Progress Curve…… 14
  - Major Equipment Delivery…… 15
  - Design-Builder's (C1045) Long Lead Item List…… 16
  - Critical Path Narrative…….. 17
  - Project Schedule Contingency Drawdown…… 18
  - Project Schedule Contingency Drawdown Analysis…… 18
- Project Cost
  - Project Cost Status…… 19
  - Project Cost Analysis…… 19
  - Project Cost Contingency Drawdown…… 20
  - Project Cost Contingency Drawdown Analysis…… 20
  - Disadvantaged Business Enterprise (DBE)…… 21
  - Project Labor Agreements (PLA) Status…… 21
  - Summary of Contract Modifications…… 22
- Financial/Grant
  - Financial/Grant Status…… 23
  - Status of Funding Anticipated..…….. 23
- Staffing Status
  - Total Project Staffing…… 24
  - Metro Staffing…… 25

TABLE OF CONTENTS (Continued)

Page No.

- Construction Management Support Services Consultant…….. 25
- Engineering Management Services Consultant…… 26
- Real Estate Status…… 27
- Quality Assurance Status..…… 28
- Environmental Status…….. 29
- Construction Relations Status……... 30
- Creative Services Status..……... 30
- Safety & Security Status…….. 31
- Third Party Agreement & Status..…… 32
- Advanced Utility Relocation Status……..……... 33
- Peak Hour and Nighttime Construction Variances……. 34
- Chronology of Events…….. 35-37
- Construction Contracts
  - Contract C1045 Status……..…… 38
  - Contract C1078 Status……..…… 39
- Construction Photographs…….. 40-41

Appendices

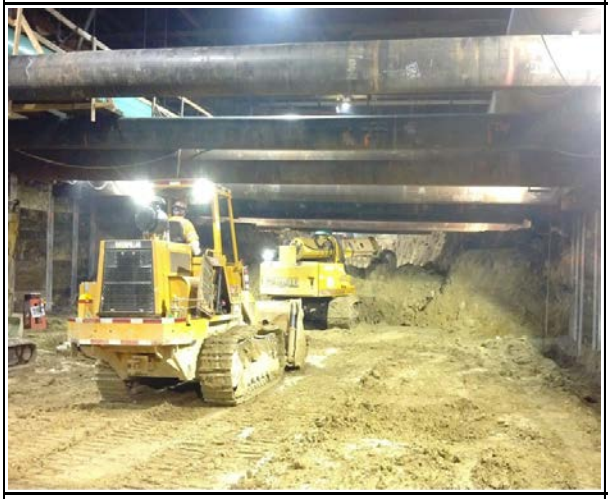
- Cost and Budget Terminology…… 42
- List of Acronyms and Abbreviations..……... 43-46

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

Under Deck Excavation at Wilshire/La Brea Station



WORK COMPLETED PAST MONTH

- C1045 Wilshire/La Brea Station excavation continues (Level B has commenced)
- C1045 Wilshire/La Brea tie-back and strut installation continues
- C1045 Cross Passage 4 jet grouting (along Wilshire Blvd) has completed
- C1045 Wilshire/Fairfax street decking (stages 1 through 10) complete
- C1045 Wilshire/Fairfax installation of temporary ventilation system continues
- C1045 Wilshire/Fairfax geotechnical installation continues
- C1045 Wilshire/Fairfax noise barrier (along Wilshire Blvd.) completed
- C1045 Wilshire/La Cienega piling installation continues
- C1045 Wilshire/La Cienega geotechnical installation continues
- C1045 Wilshire/La Cienega noise barrier installation continues
- C1045 DU #6 Systems – 100% Design complete
- C1078 Div 20 Bldg - sanitary sewer lateral / sump pump completed

EXPENDITURE STATUS
($ In Millions)

ACTIVITIES	CURRENT BUDGET	EXPENDED AMOUNT	PERCENT EXPENDED
DESIGN	$159.2	$145.2	91.2%
RIGHT-OF-WAY	$175.6	$179.4	102.2%
CONSTRUCTION	$1,740.3	$547.8	31.5%
OTHER	$1,079.3	$140.7	13.0%
TOTAL	$3,154.4	$1,013.1	32.1%

Current Budget includes Environmental/Planning and Finance Costs.

AREAS OF CONCERN

SCHEDULE ASSESSMENT

MAJOR SCHEDULE ACTIVITIES	PRIOR PLAN	CURRENT PLAN	VARIANCE WEEKS
Environmental			
FEIS / FEIR	N/A	05/31/12	Complete
Design			
PE Notice to Proceed	N/A	01/12/11	Complete
Final Design complete	03/22/17	05/31/17	-10.0
Right-of-Way			
All parcels available*	12/31/15	12/31/15	0
Construction - Main Design / Build Contract			
Notice to Proceed	01/12/15	01/12/15	Complete
Construction complete	11/08/23	11/08/23	0

* Parcels related to main D/B Contract C1045

ROW ACQUISITION	PLAN	AVAILABLE	REMAINING
PERMANENT PARCELS	15	15	0
TEMPORARY PARCELS	4	4	0
TOTAL PARCELS	19	19	0

CRITICAL ACTIVITIES / 3 MONTH LOOK AHEAD

- C1045 DU #6 Systems – AFC complete
- C1045 Wilshire/La Brea Station - Level A install walers / struts complete
- C1045 Wilshire/La Brea Station - Level B excavation complete
- C1045 Wilshire/La Brea Station - Level C excavation complete
- C1045 Wilshire/Fairfax Station weekend decking operations complete
- C1045 Wilshire/Fairfax Station excavation under deck commences
- C1045 Wilshire/La Cienega Station switch traffic to Stage 2
- C1078 Phase II (Backfill & Compaction) construction commences

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.

Design

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

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 and design updates. *The team also participated in the comment resolution meetings for the 85% design unit package for Building 61S.*

As of this period, regular design taskforce meetings have been discontinued as design is essentially complete. Approval of the AFC Systems submittal is expected next period. Support continues in the review of construction related work plans, third party submittals, and responding to RFI's.

The C1045 Contractor, Skanska, Traylor and Shea (STS), and their final design team, Parsons 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.

"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.

The status of the design submittals are as follows:

Design Unit	Percentage	Submittal Date
DU# 1 - Western	AFC	10/27/2016
DU# 2 - La Brea	AFC	12/5/2016
DU# 3 - Fairfax	AFC	1/27/2017
DU# 4 - La Cienega	AFC	3/31/2017
DU# 5 - Tunnels	AFC	11/2/2016
DU# 6 - Systems	AFC	5/31/2017

The AFC package for Systems is currently under review.

STS is continuing with the required contractual submittals.

Major Contract Procurement
All construction contracts for the Project have been awarded.

Construction
Southern California Edison crews began the cable pulling and splicing work at Wilshire/La Cienega Station on August 4, 2016. This work was completed on December 20, 2016. AT&T work within the same location is scheduled to complete in April 2017. This will complete all AUR work at this location. The C1045 contractor has full access to this area and is not impacted by the remaining AT&T work.

The C1045 contractor began pile installation for the Wilshire/La Brea Station in mid-December 2015. The contractor had 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 to the south side occurred on the weekend of April 15, 2016 and pile installation began on May 4, 2016. The installation of the remaining two piles at this station location was completed on August 28, 2016.

Weekend closures began on June 10, 2016 for the installation of deck beams and concrete deck panels for the Wilshire/La Brea Station. This work was completed on October 17, 2016, six weeks ahead of schedule. Station excavation began on October 12, 2016 *and continues beneath the deck panels. First level walers and struts continue to be installed and second level excavation has commenced. Station excavation is scheduled to complete by December 2017.*

Traffic reconfiguration work began in early July 2016 at the Wilshire/Fairfax Station site in preparation of station pile installation. Pile installation began on the north side of Wilshire Boulevard on August 24, 2016. The traffic control switch to the south side of Wilshire Boulevard

occurred on November 19, 2016. Pile operations on the south side of Wilshire Boulevard began on December 5, 2016. Pile installation was completed on February 9, 2017.

Weekend closures began on February 11, 2017 for the installation of deck beams and concrete deck panels for the Wilshire/Fairfax Station. *Ten of the planned 18 weekend closures have been completed. The hanging of utilities with ventilation under the concrete deck panels has commenced.*

Building demolition at the Wilshire/La Cienega Station site has been completed. Beverly Hills City Council approved the permit for pre-piling and geotechnical instrumentation activities on December 20, 2016.

Approval of the Memorandum of Agreement (MOA) for the construction of the Wilshire/La Cienega Station by the Beverly Hills City Council occurred on February 21, 2017, followed by Metro Board approval February 23, 2017. The C1045 contractor began station pile installation on March 20, 2017. *Stage 1 piling along the south side of Wilshire Boulevard is scheduled to complete in June 2017.*

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

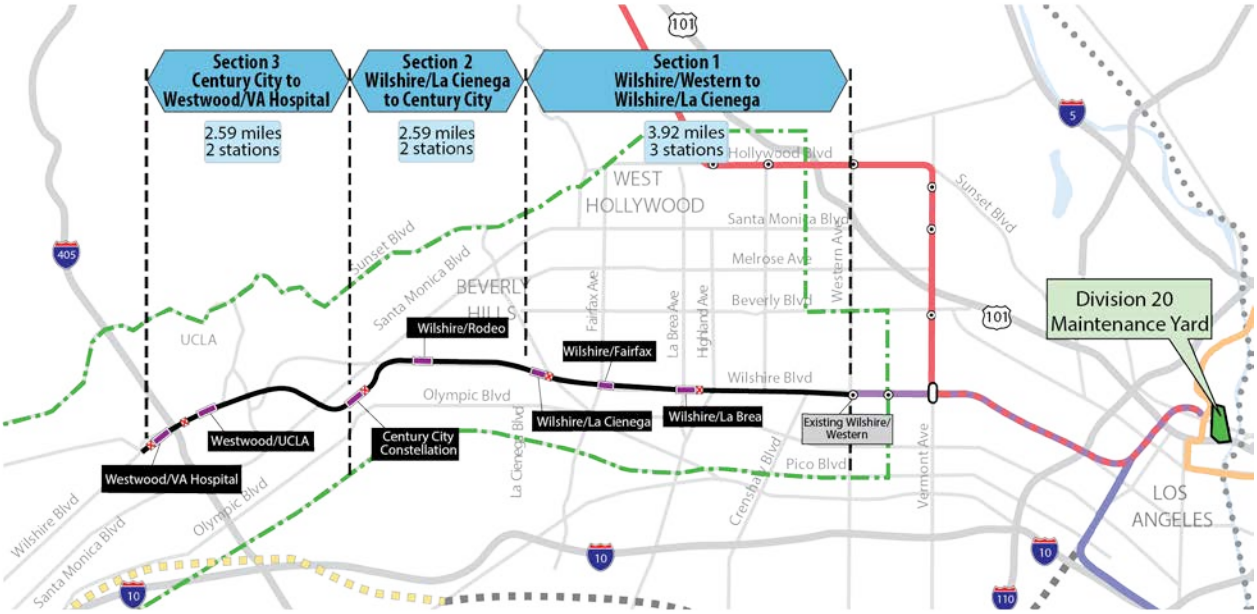
The manufacturing of the two TBMs by Herrenknecht Tunneling Systems USA, Inc. is underway. Delivery is expected in late 2017 to support the start of tunneling from Wilshire/La Brea to Wilshire/Western (Reach 1) in 2018.

The storm drain relocation work at the Division 20 Maintenance-of-Way and Non-revenue Vehicle Building 61S site has begun. Once the utility relocations and the phase II environmental work have been completed, full access will be given to the C1078 contractor to begin construction. Full access is anticipated during the third quarter of 2017.

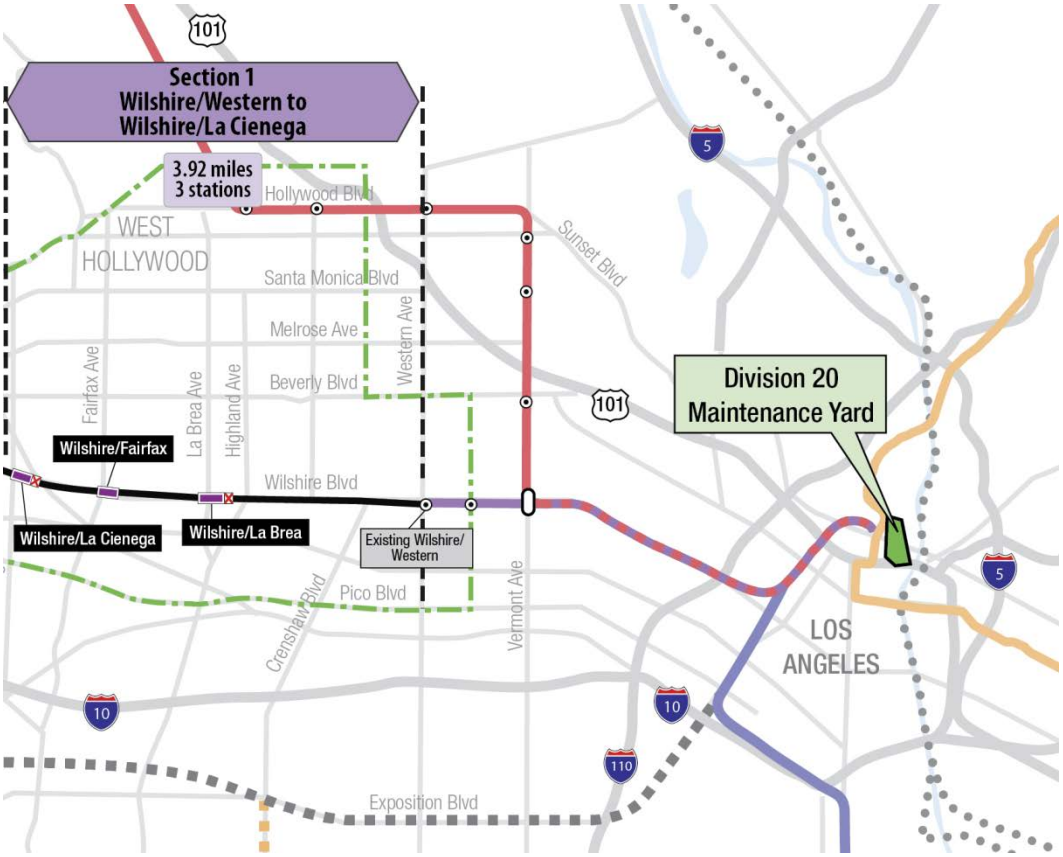
MANAGEMENT ISSUES

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, 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
The work scope of this contract included the relocation of existing City of Beverly Hills water, storm drain and sewer utilities within the construction limits of the Wilshire/La Cienega 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 during cut-over of the existing utilities. The contract was substantially completed on August 5, 2016.

Contract C1045 – Tunnels, Stations, Trackwork, Systems and Systems Integration Testing
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 has procured a contract to provide 34 Heavy Rail Vehicles (HRV) necessary to operate the extension to the Purple Line. An additional contract will be procured for the Universal Fare System (UFS). The scope of the HRV contract includes design, manufacturing, testing and delivery of the vehicles. The scope of the UFS contract will include 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.

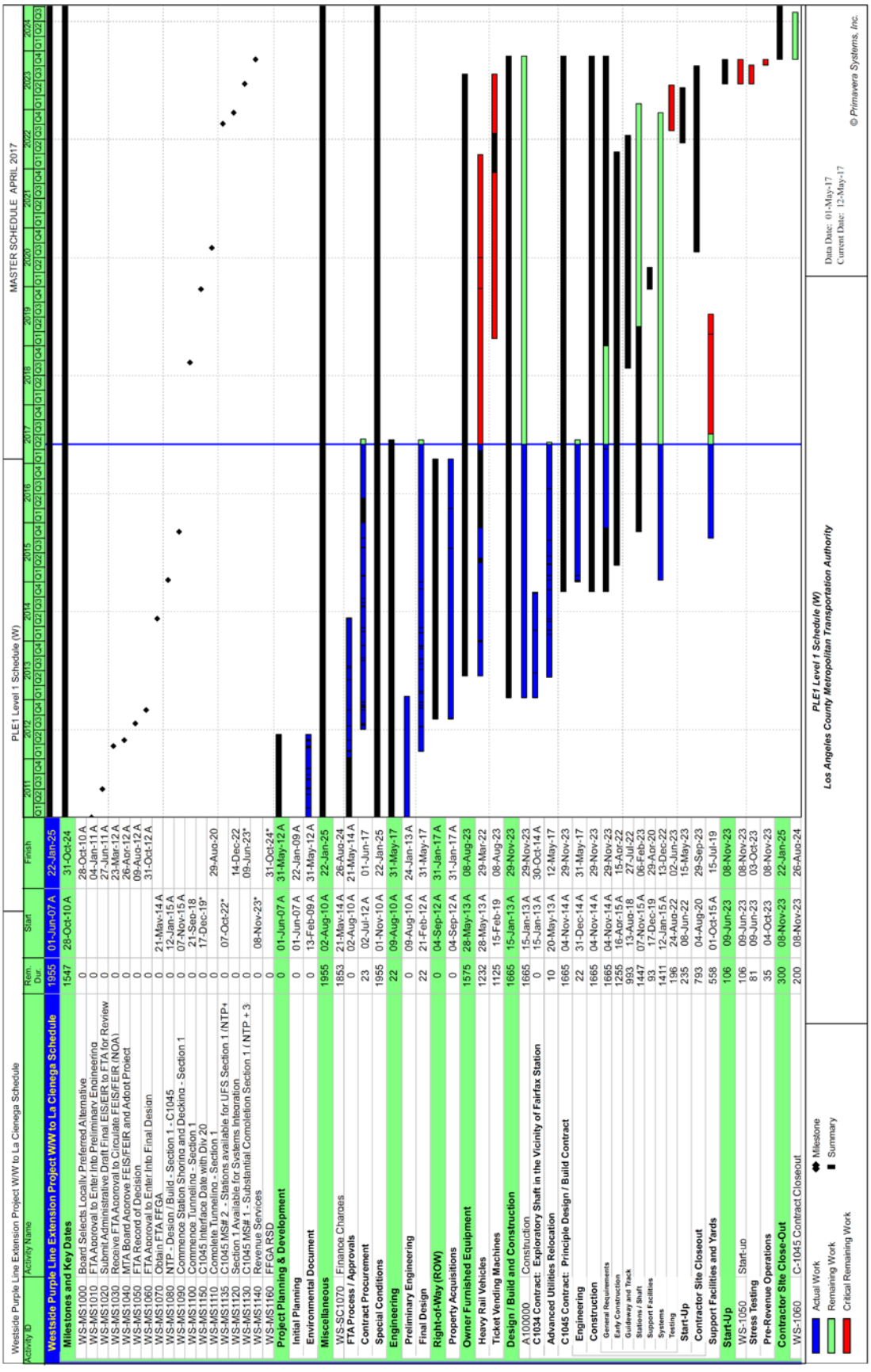
KEY MILESTONES SIX-MONTH LOOK AHEAD

	Milestone Date	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17
C1045 Wilshire/Fairfax Underdeck Excavation Begins	05/26/17	☐					
C1045 Final Design Units Complete	05/31/17	☐					
C1045 Wilshire/Fairfax Decking Complete	06/11/17		☐				
C1045 Wilshire/La Brea Underdeck (Level C) Excavation Begins	06/23/17		☐				
C1045 Wilshire/La Cienega Stage 2 Traffic Switch to North Side	07/05/17			☐			
C1045 - Reach 1 Jet Grouting Cross Passages Complete	08/03/17				☐		
C1045 Wilshire/Fairfax Excavation (Level B) Begins	08/18/17				☐		
C1045 Wilshire/La Brea Underdeck (Level D) Excavation Begins	08/31/17				☐		
C1045 - Reach 3 Jet Grouting Cross Passages Begins	09/15/17					☐	
C1045 Wilshire/La Cienega Decking Begins	09/23/17					☐	
C1045 Wilshire/Fairfax Excavation (Level C) Begins	10/12/2017						☐

◆ MTA Staff Ⓜ MTA Board Action **FTA** (Federal Transit Administration)

△ Other Agencies ☐ Contractors

PROJECT SUMMARY SCHEDULE

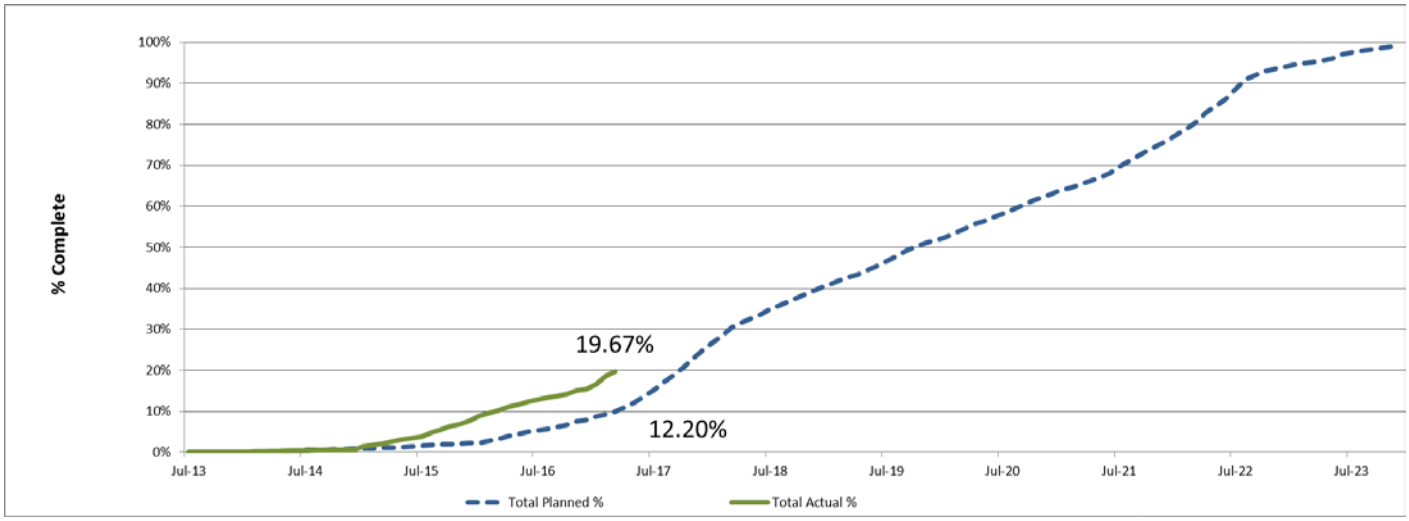


SCHEDULE MEASUREMENTS

	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	97.09%	1.11%	
Contract C1078	66.44%	6.75%	
Construction Contracts Progress*:			
Contract C1048	100.00%	0.00%	Completed on schedule
Contract C1045	17.43%	1.14%	
Contract C1055	100.00%	0.00%	Completed on schedule
Contract C1056	100.00%	0.00%	Completed on schedule
Contract C1078	13.68%	0.47%	

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

OVERALL CONSTRUCTION PROGRESS CURVE



The actual overall construction progress is 19.67% versus a planned of 12.20% through April 2017. 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.

MAJOR EQUIPMENT DELIVERY

	Initial Procurement	Submittal	Delivery	Installation
Tunnel Boring Machine	1/29/16	5/30/16	11/3/17	8/13/18
Deliver to Site - Station HVAC System	*12/4/17*	*1/13/18*	*10/29/18*	*1/4/21*
Deliver to Site - Ventilation Fans	*12/4/17*	*1/13/18*	*2/21/19*	*9/18/19*
Deliver to Site - Elevators	*8/6/17*	*10/5/17*	*11/13/18*	*11/4/21*
Deliver to Site - Escalalators	*10/5/17*	*12/4/17*	*1/12/19*	*11/4/21*
Heavy Rail Vehicles	7/16/15	*10/3/18*	*2/9/22*	*1/9/23*
Ticket Vending Machines	2/15/19	10/8/21	9/8/21	*1/20/22*

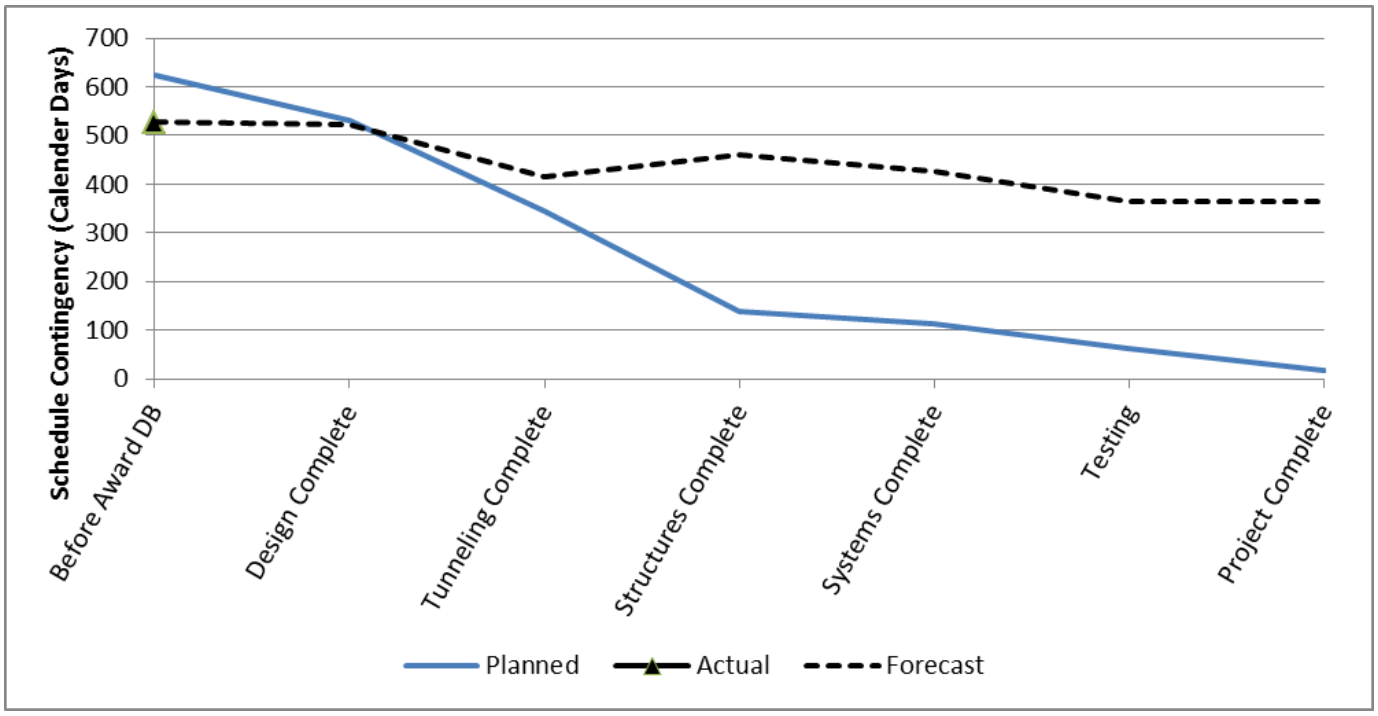
DESIGN BUILDER'S (C1045) LONG LEAD ITEM LIST

Item	Initial Procurement	Approved Submittal	Delivery	Installation Date
Procure / Deliver Fiber Optic Cable	2-Sep-16	21-Aug-16	19-Nov-16	8-Oct-20
Procure / Deliver Innerduct	2-Sep-16	21-Aug-16	19-Nov-16	5-Aug-20
Procure / Deliver Radio Cable	21-Aug-16	11-Aug-16	9-Nov-16	15-Sep-20
SCADA: Procure / Deliver Devices	21-Aug-16	6-Aug-16	4-Nov-16	21-May-21
Procure / Deliver SCADA Cable	21-Aug-16	6-Aug-16	4-Nov-16	5-Aug-20
Procure / Deliver TPS Bonding Cable	23-Mar-17	19-Apr-17	18-Jul-17	8-Oct-21
Procure / Deliver Traction Power Cable	23-Mar-17	19-Apr-17	18-Jul-17	2-Sep-20
TPS: Procure/Deliver BLS Equipment & Devices	23-Mar-17	19-Apr-17	18-Jul-17	26-Aug-20
Mfgr/Assemble/Wire DC Rectifier/Transformer - La Cienega TPSS	27-Jun-17	19-Jul-17	17-Oct-17	2-Feb-22
Mfgr/Assemble/Wire HV Metering Switchgear - La Cienega TPSS	27-Jun-17	19-Jul-17	17-Oct-17	2-Feb-22
Mfgr/Assemble/Wire DC Switches - Fairfax GBS	18-Oct-17	10-Nov-17	8-Feb-18	30-Jul-21
Mfgr/Assemble/Wire HV Metering Switchgear - Fairfax GBS	18-Oct-17	10-Nov-17	8-Feb-18	30-Jul-21
Mfgr/Assemble/Wire DC Rectifier/Transformer - La Brea TPSS	17-Oct-17	16-Nov-17	14-Feb-18	18-Nov-20
Mfgr/Assemble/Wire HV Metering Switchgear - La Brea TPSS	12-Feb-18	14-Mar-18	12-Jun-18	18-Nov-20
CCTV: Assemble/Rack & Stack/Factory Test COM Equipment for Western	26-Jan-17	10-Nov-16	8-Feb-17	2-Mar-22
CCTV: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	26-Jan-17	1-Mar-17	30-May-17	22-Feb-22
CCTV: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	17-May-17	29-Jun-17	27-Sep-17	8-Oct-21
CCTV: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	28-Sep-17	28-Oct-17	26-Jan-18	26-Feb-22
CTS: Assemble/Rack & Stack/Factory Test COM Equipment for Western	14-Jul-16	13-Aug-16	11-Nov-16	12-Mar-22
CTS: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	12-Nov-16	11-Dec-16	11-Mar-17	23-Sep-21
CTS: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	14-Mar-17	15-Apr-17	14-Jul-17	10-Jul-21
CTS: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	15-Jul-17	16-Aug-17	14-Nov-17	15-Dec-21
EMER MGMT: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	21-Oct-16	20-Nov-16	18-Feb-17	6-Jul-22
EMER MGMT: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	21-Feb-17	25-Mar-17	23-Jun-17	25-Feb-22
EMER MGMT: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	24-Jun-17	23-Jul-17	21-Oct-17	1-Jun-22
FIRE ALARM: Assemble/Rack & Stack/Factory Test COM Equipment for Western	14-Jul-16	13-Aug-16	11-Nov-16	21-Mar-22
FIRE ALARM: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	12-Nov-16	11-Dec-16	11-Mar-17	20-Jan-22
FIRE ALARM: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	14-Mar-17	15-Apr-17	14-Jul-17	4-Sep-21
FIRE ALARM: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	15-Jul-17	16-Aug-17	14-Nov-17	24-Feb-22
GAS DETECTION: Assemble/Rack & Stack/Factory Test COM Equipment for Western	8-Sep-16	9-Oct-16	7-Jan-17	26-Jan-21
GAS DETECTION: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	10-Jan-17	11-Feb-17	12-May-17	15-Mar-22
GAS DETECTION: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	13-May-17	10-Jun-17	8-Sep-17	30-Oct-21
GAS DETECTION: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	9-Sep-17	12-Oct-17	10-Jan-18	4-Mar-22
INTRUSION: Assemble/Rack & Stack/Factory Test COM Equipment for Western	8-Sep-16	9-Oct-16	7-Jan-17	6-Jan-21
INTRUSION: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	10-Jan-17	12-Jan-17	22-Mar-17	5-Apr-22
INTRUSION: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	13-May-17	10-Jun-17	8-Sep-17	19-Nov-21
INTRUSION: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	9-Sep-17	12-Oct-17	10-Jan-18	15-Mar-22
RADIO: Assemble/Rack & Stack/Factory Test COM Equipment for Western	31-Aug-16	30-Sep-16	29-Dec-16	9-Oct-20
RADIO: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	30-Dec-16	3-Feb-17	4-May-17	16-Dec-21
RADIO: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	5-May-17	2-Jun-17	31-Aug-17	7-Aug-21
RADIO: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	1-Sep-17	1-Oct-17	30-Dec-17	14-Oct-21
SCADA: Assemble/Rack & Stack/Factory Test COM Equipment for Western	14-Jul-16	13-Aug-16	11-Nov-16	27-Jan-21
SCADA: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	12-Nov-16	11-Dec-16	11-Mar-17	1-Dec-21
SCADA: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	14-Mar-17	15-Apr-17	14-Jul-17	21-Jul-21
SCADA: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	15-Jul-17	16-Aug-17	14-Nov-17	17-Dec-21
SEISMIC: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	8-Sep-16	9-Sep-16	22-Nov-16	14-Jul-22
SEISMIC: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	10-Jan-17	11-Feb-17	12-May-17	5-Mar-22
SEISMIC: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	13-May-17	10-Jun-17	8-Sep-17	22-Jun-22
TELEPHONE: Assemble/Rack & Stack/Factory Test COM Equipment for Western	8-Sep-16	9-Oct-16	7-Jan-17	7-Jan-21
TELEPHONE: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	10-Jan-17	11-Feb-17	12-May-17	9-Jun-22
TELEPHONE: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	13-May-17	10-Jun-17	8-Sep-17	7-Jan-22
TELEPHONE: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	9-Sep-17	12-Oct-17	10-Jan-18	4-May-22
TPIS: Assemble/Rack & Stack/Factory Test COM Equipment for La Brea	24-Sep-16	27-Oct-16	25-Jan-17	20-May-22
TPIS: Assemble/Rack & Stack/Factory Test COM Equipment for Fairfax	26-Jan-17	1-Mar-17	30-May-17	24-Feb-22
TPIS: Assemble/Rack & Stack/Factory Test COM Equipment for La Cienega	31-May-17	29-Jun-17	27-Sep-17	9-Jun-22
UPS: Manufacture/Factory Test COM Equipment for La Brea	1-Sep-16	1-Oct-16	30-Dec-16	7-Jan-22
UPS: Manufacture/Factory Test COM Equipment for Fairfax	31-Dec-16	4-Feb-17	5-May-17	14-Oct-21
UPS: Manufacture/Factory Test COM Equipment for La Cienega	6-May-17	3-Jun-17	1-Sep-17	21-Dec-21
PROCURE GAS/WATERPROOFING MATERIALS FOR LA BREA STATION	2-Jul-17	1-Jul-17	29-Sep-17	15-Dec-17
FABRICATE CANOPY STRUCTURE - FAIRFAX STATION	24-Feb-17	23-Feb-17	24-May-17	4-Nov-22
FABRICATE CANOPY STRUCTURE - LA CIENEGA STATION	25-May-17	24-May-17	22-Aug-17	30-Nov-22
Mfgr/Assemble/Wire DC Switchgear - La Cienega TPSS	27-Jun-17	31-Aug-17	29-Nov-17	2-Feb-22
Mfgr/Assemble/Wire AC Switchgear - La Cienega TPSS	27-Jun-17	31-Aug-17	29-Nov-17	15-Feb-22
Mfgr/Assemble/Wire DC Switchgear - La Brea TPSS	30-Nov-17	8-Feb-18	9-May-18	18-Nov-20
Mfgr/Assemble/Wire AC Switchgear - Fairfax GBS	30-Nov-17	8-Feb-18	9-May-18	30-Jul-21
Mfgr/Assemble/Wire AC Switchgear - La Brea TPSS	10-May-18	13-Jul-18	11-Oct-18	13-Aug-21
ATC: Procure/Deliver Switch Machines	31-Jul-16	16-Oct-16	14-Jan-17	17-Feb-22
COMPLETE MOCK-UP, FABRICATE CANOPY STRUCTURE - LA BREA STATION	27-Oct-16	24-May-17	22-Aug-17	21-Dec-22
FAB/DELIVER SOLDIER PILES / BEAMS - TBM RETRIEVAL SHAFT	9-Oct-16	12-Nov-16	10-Feb-17	14-Nov-17
FAB/DELIVER SOLDIER PILES / BEAMS - FAIRFAX STATION	27-Aug-16	30-Sep-16	29-Dec-16	8-Nov-16
FAB/DELIVER SOLDIER PILES / BEAMS - LA CIENEGA STATION	9-Feb-17	15-Mar-17	13-Jun-17	24-Jun-17
ATC: Assemble/Rack & Stack TC&C Equipment for Western	3-Nov-17	23-Feb-18	24-May-18	8-Oct-20
ATC: Assemble/Rack & Stack ATC Equipment for La Brea	3-Nov-17	23-Feb-18	24-May-18	9-Nov-21
ATC: Assemble/Rack & Stack ATC Equipment for Fairfax	20-Jan-18	11-May-18	9-Aug-18	10-Aug-21
ATC: Assemble/Rack & Stack ATC Equipment for La Cienega	12-Jun-18	27-Sep-18	26-Dec-18	28-Jan-22
FABRICATE TRACK MATERIALS	7-Feb-19	5-Sep-19	4-Dec-19	20-Feb-21
ATC: Procure/Deliver WS Equipment & Devices	30-Mar-16	17-Sep-16	16-Dec-16	28-Jan-22
ATC: Procure/Deliver Components & Materials - Western	5-Jan-17	4-Aug-17	2-Nov-17	8-Oct-20
ATC: Procure/Deliver Components & Materials - La Brea	5-Jan-17	4-Aug-17	2-Nov-17	9-Nov-21
ATC: Procure/Deliver Components & Materials - Fairfax	5-Jan-17	4-Aug-17	2-Nov-17	10-Aug-21
ATC: Procure/Deliver Components & Materials - La Cienega	5-Jan-17	4-Aug-17	2-Nov-17	28-Jan-22

CRITICAL PATH NARRATIVE

The critical path for the Westside Purple Line Extension Section 1 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 of the Wilshire/La Brea station box, installation of track-work and traction 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

DOLLARS IN THOUSANDS

SCC CODE	DESCRIPTION	ORIGINAL BUDGET	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		CURRENT BUDGET / FORECAST VARIANCE
			PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
10	GUIDEWAY & TRACK ELEMENTS	388,294	-	388,294	-	380,970	14,131	43,195	-	387,938	(356)
20	STATIONS, STOPS, TERMINALS, INTERMODAL	440,621	-	440,621	468	435,925	5,798	53,187	(439)	458,316	17,695
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	43,323	-	43,323	-	36,392	34	2,007	-	43,991	668
40	SITEWORK & SPECIAL CONDITIONS	751,566	-	754,491	572	771,957	5,208	438,168	439	796,171	41,680
50	SYSTEMS	113,574	-	113,574	-	98,008	-	11,226	-	113,574	-
	CONSTRUCTION SUBTOTAL (10-50)	1,737,378	-	1,740,303	1,040	1,723,252	25,171	547,783	-	1,799,990	59,687
60	ROW, LAND, EXISTING IMPROVEMENTS	175,634	-	175,634	-	202,980	1,280	179,409	-	202,980	27,346
70	VEHICLES	160,196	-	160,196	-	98,118	4,648	4,648	-	108,302	(51,893)
80	PROFESSIONAL SERVICES	412,710	-	414,785	72	284,391	3,274	241,942	-	418,141	3,356
	SUBTOTAL (10-80)	2,485,918	-	2,490,918	1,112	2,308,740	34,373	973,783	-	2,529,413	38,495
90	UNALLOCATED CONTINGENCY	248,592	-	248,592	-	-	-	-	-	254,502	5,910
100	FINANCE CHARGES	375,470	-	375,470	-	-	-	-	-	331,065	(44,405)
	TOTAL PROJECTS 465518 & 865518 (10-100)	3,109,980	-	3,114,980	1,112	2,308,740	34,373	973,783	-	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	1,112	2,348,110	34,373	1,013,140	-	3,154,350	-

PROJECT COST ANALYSIS

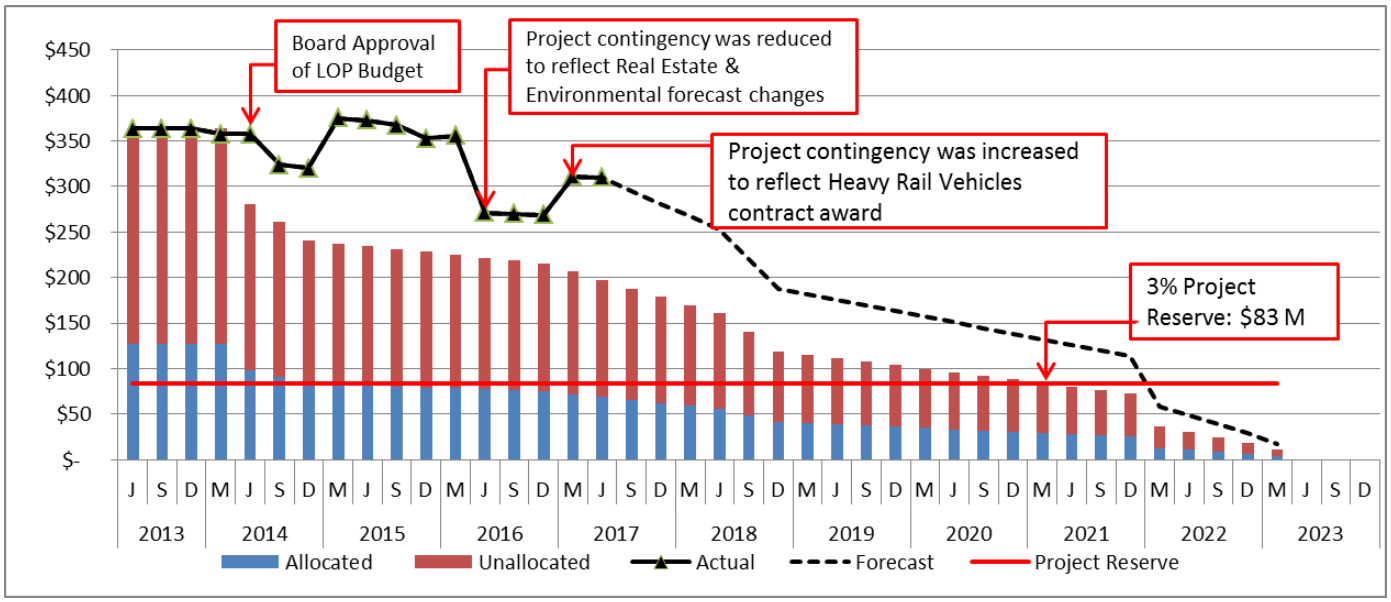
Original Budget
The Original Budget of $3.2 billion reflects the Board approved Life of Project Budget, July 24, 2014, plus Finance Charges of $0.4 billion.

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 $1.1 million primarily due to executed Contract Modifications for the Design/Build Contract C1045. The $2.3 billion in Commitments to date represents 74.4% of the Current Budget.

Expenditures
The Expenditures increased by $34.4 million primarily for costs associated with the Design/Build Contracts C1045 and C1078, Heavy Rail Vehicles Procurement Contract HR4000, Real Estate Acquisitions, Memorandum of Understanding (MOA) with the City of Beverly Hills, Master Cooperative Agreement with the City of Los Angeles, Engineering Management Services, and Metro Project Administration. The $1.0 billion in Expenditures to date represents 32.1% 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 $0.9 million due to three executed Contract Modifications for the Design/Build Contract C1045.

PROJECT COST CONTINGENCY
DOLLARS IN THOUSANDS

	Original Contingency (Budget)	Previous Period	Current Period	To-Date	Remaining Contingency (Forecast)
Unallocated Contingency	248,592	5,910	0	5,910	254,502
Allocated Contingency	71,963	(15,283)	(907)	(16,190)	55,774
Total Contingency	**320,555**	**(9,372)**	**(907)**	**(10,280)**	**310,276**

DISADVANTAGED BUSINESS ENTERPRISE (DBE)

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

Contract C1045 Westside Purple Line Extension, Section 1 Design-Build
(*Reporting Data as of April 2017*)

- DBE Goal – Design 20%
- Current DBE Commitment $12,969,370 (20.25%)
- Current DBE Participation *$10,469,665 (17.59%)*
- Fourteen (14) Design DBE subcontractors have been identified for Design

- DBE Goal – Construction 17%
- Current DBE Commitment $259,306,471 (17%)
- Current DBE Participation *$47,577,058 (11.70%)*
- *Ninety-two (92) Construction DBE subcontractors have been identified to-date*

PROJECT LABOR AGREEMENTS (PLA) STATUS

Contract C1045 Westside Purple Line Extension, Section 1 Design-Build
(*Reporting Data as of April 2017*)

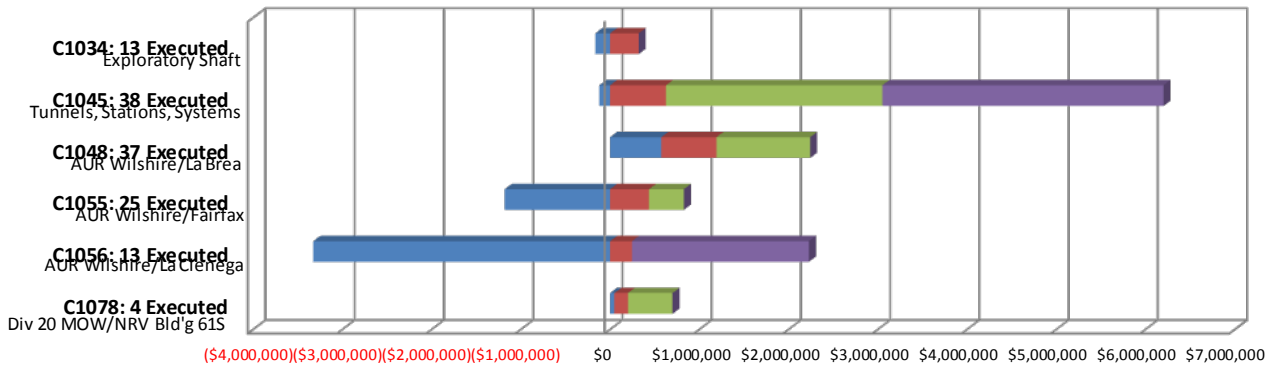
- Targeted Worker Goal 40.00%
- Targeted Worker Current Participation 66.87%

- Apprentice Worker Goal 20.00%
- Apprentice Worker Current Participation 16.87%

- Disadvantaged Worker Goal 10.00%
- Disadvantaged Worker Current Participation 7.87%

SUMMARY OF CONTRACT MODIFICATIONS

Contract Modifications (MODs) by Cost Level



	C1034 13 Executed	C1045 38 Executed	C1048 37 Executed	C1055 25 Executed	C1056 13 Executed	C1078 4 Executed	Total
Under $100K	(164,288)	(118,565)	574,448	(1,179,119)	(3,324,793)	48,565	**(4,163,752)**
$100K to $250K	321,000	626,791	616,809	436,190	245,024	151,324	**2,397,138**
$250K to $1M	-	2,424,984	1,050,980	390,709	-	500,798	**4,367,471**
Over $1M	-	3,150,000	-	-	1,983,179	-	**5,133,179**
Total Contract MODs	**156,712**	**6,083,210**	**2,242,237**	**(352,220)**	**(1,096,590)**	**700,687**	**7,734,036**
Contract Award Amount	**6,487,020**	**1,636,418,585**	**6,181,000**	**14,430,000**	**20,250,000**	**52,830,310**	**1,736,596,915**
% of Contract MODs	**2.4%**	**0.4%**	**36.3%**	**-2.4%**	**-5.4%**	**1.3%**	**0.4%**

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.

Thirty-eight Contract MODs with a total value of $6.1 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.

Thirteen Contract MODs with a total value of <$1.1> million have been executed since the award of Contract C1056 – Advanced Utility Relocations at Wilshire/La Cienega by Steve Bubalo Construction Co.

Four Contract MODs with a total value of $0.7 million have been executed since the award of Contract C1078 – Division 20 Maintenance-of-Way and Non-Revenue Vehicle Building 61S.

FINANCIAL/GRANT STATUS

(IN MILLIONS OF DOLLARS)

SOURCE	(A) ORIGINAL BUDGET	(B) TOTAL FUNDS ANTICIPATED	(C) TOTAL FUNDS AVAILABLE	(D) COMMITMENTS $	(D/B) COMMITMENTS %	(E) EXPENDITURES $	(E/B) EXPENDITURES %	(F) BILLED TO FUNDING SOURCE $	(F/B) BILLED TO FUNDING SOURCE %
FEDERAL - SECTION 5309 NEW STARTS	$1,250.000	$1,250.000	$265.000	$1,250.000	100%	$265.000	21%	$265.000	21%
FEDERAL CMAQ	$12.171	$12.171	$12.171	$12.171	100%	$12.171	100%	$12.171	100%
FEDERAL SECTION 5339 - 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	$340.707	$341.819	40%	$119.799	14%	$0.000	0%
MEASURE R 35%	$869.178	$874.178	$593.732	$657.392	75%	$529.442	61%	$489.018	56%
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%	$54.500	65%
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	$1,298.338	$2,348.110	74.4%	$1,013.140	32.1%	$823.769	26.1%

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 $65.0 million was awarded on June 2, 2014. FTA Grant CA-03-0824-01 for $100.0 million was awarded on August 10, 2015. FTA Grant CA-2016-017 for $100.0 million was awarded on September 8, 2016. Funds are available for drawdown.

FEDERAL SECTION 5339 ALTERNATIVE ANALYSIS: FTA Grant CA-39-0006 of $0.5 million was awarded on July 25, 2014. Funds are available for drawdown.

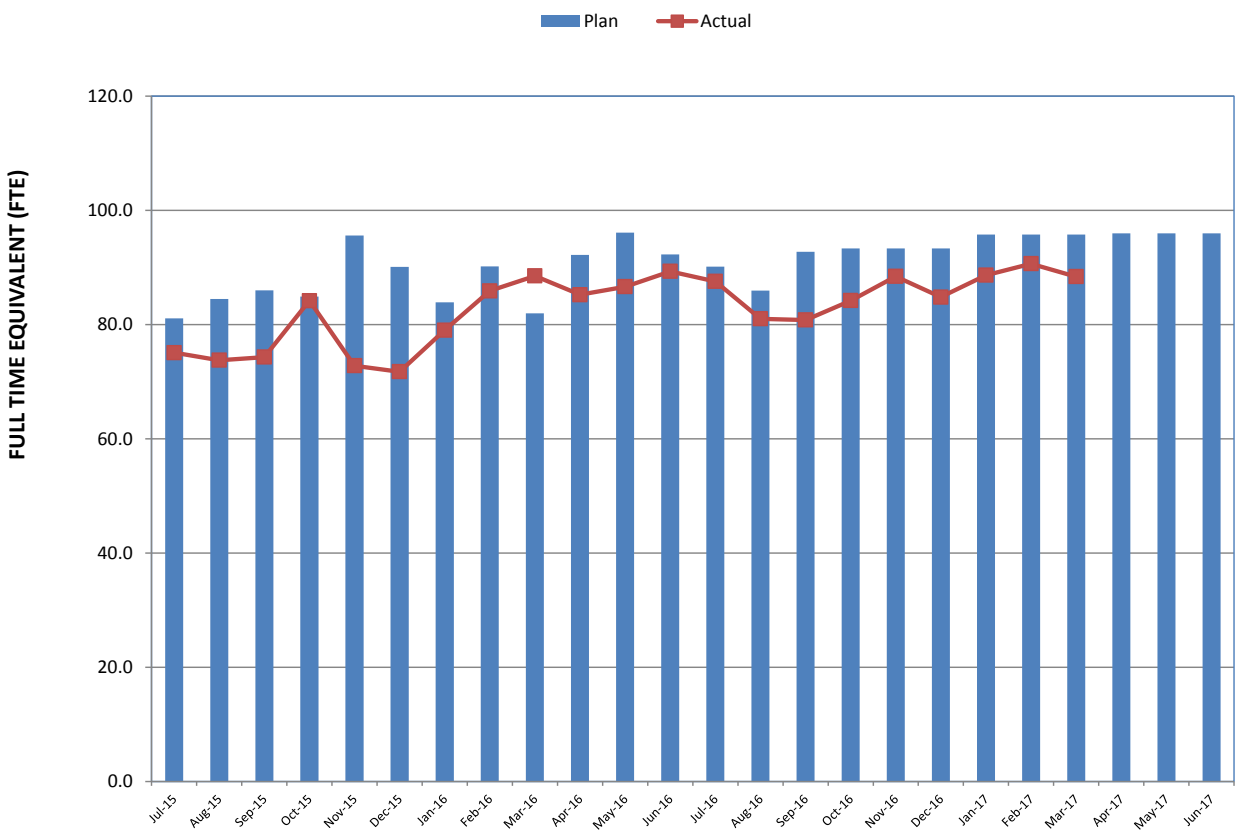
MEASURE R – TIFIA LOAN (Transportation Infrastructure Finance & Innovation Act): TIFIA Loan was executed on May 21, 2014 for $856.0 million. $340.7 million funds are available for drawdown. *First distribution is planned for FY17.*

MEASURE R 35%: $593.7 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.

STAFFING STATUS
Total Project Staffing – FTES



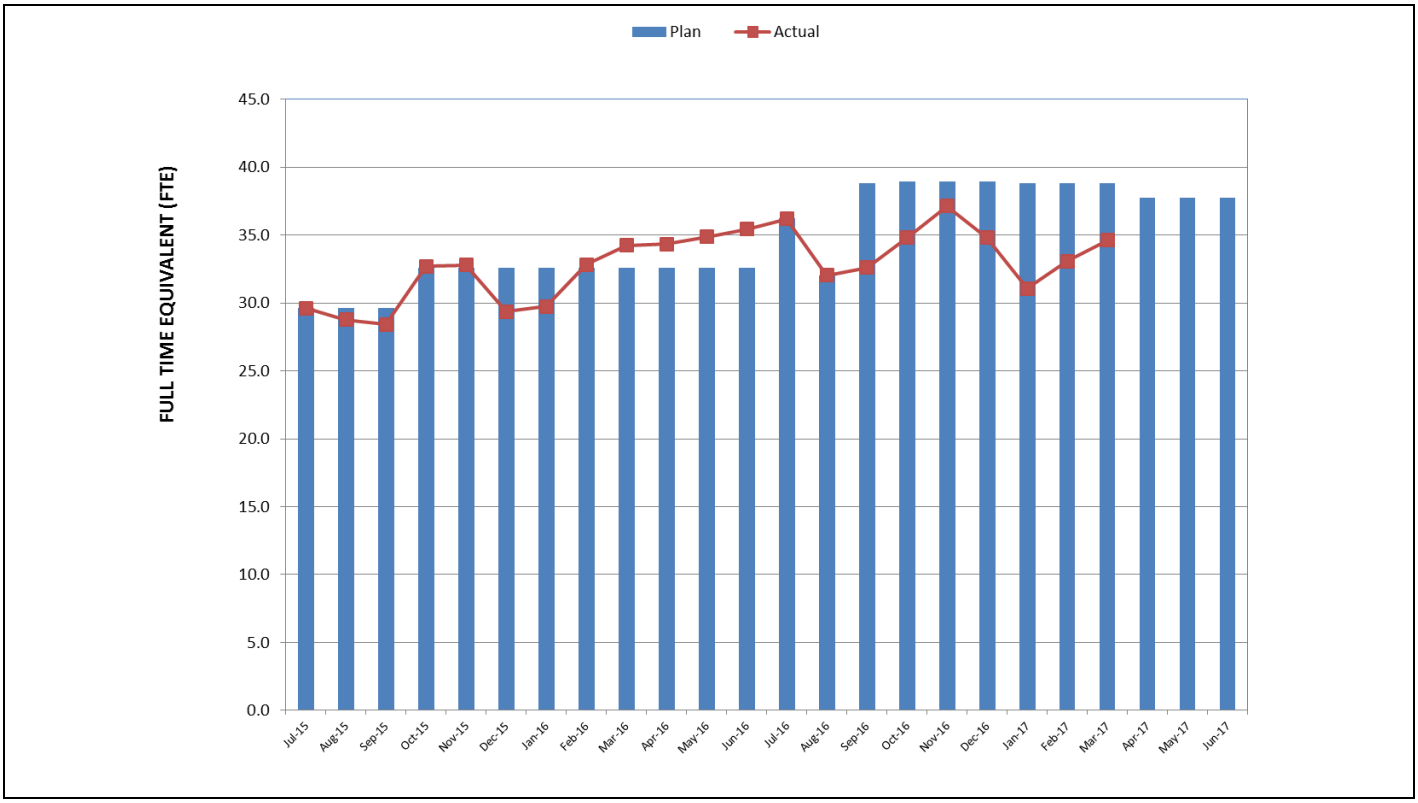
TOTAL PROJECT STAFFING

The overall FY17 Total Project Staffing Plan averages 93.7 FTEs per month.

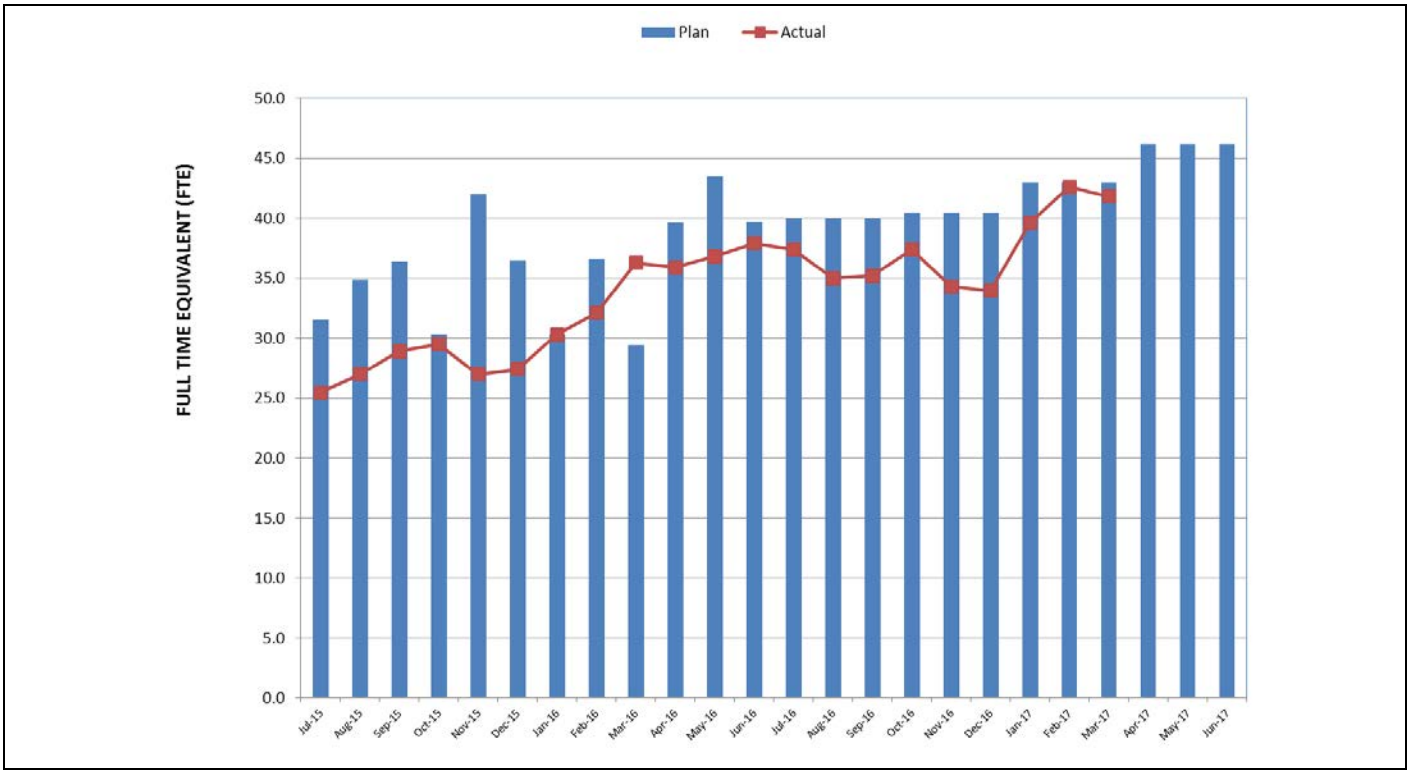
For March 2017, there were a total of 34.6 FTEs for MTA's Project Administration Staff and 53.8 FTEs for Consulting Staff. The total project staffing for March 2017 was 88.4 FTEs.

STAFFING STATUS (Continued)

METRO STAFFING – FTES

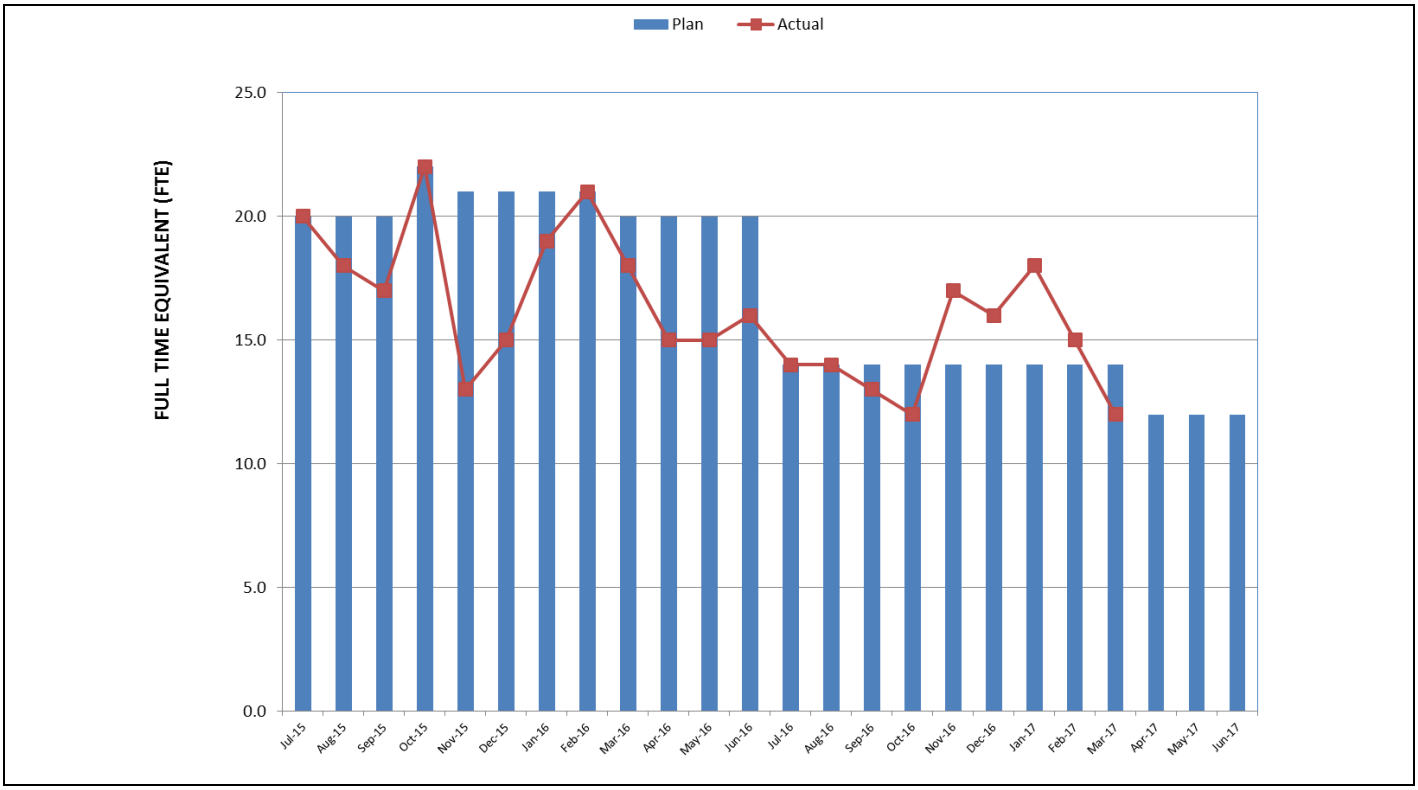


CONSTRUCTION MANAGEMENT SUPPORT SERVICES CONSULTANT – FTES



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/ Settlements Signed	Relocations		Parcels Available
						Required	Completed	
Full Takes	9	9	9	9	6	109	109	9
Part Takes	6	6	6	6	3	0	0	6
TCE	4	4	4	4	2	0	0	4
Total Parcels	**19**	**19**	**19**	**19**	**11**	**109**	**109**	**19**

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

Metro has possession of all the parcels by either acquisition, possession and use agreements or stipulations. The C1045 contractor has possession of all properties needed to construct the Project. The purchase agreement for Parcel W-6104 (Chalmers) at Division 20 was approved by the Metro Board in June 2016. A right-of-entry agreement has been executed between Chalmers and Metro in order to proceed with construction work in advance of closing escrow.

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.
- Continue to track structural support members which require modification through open items list and RFI process (Wilshire/La Brea and Wilshire/Fairfax Support of Excavation).
- Metro QAC conducted surveillances of the Contractors implementation of their Quality procedures at the Wilshire/ La Brea and Wilshire/Fairfax Support of Excavation including precast plants for fabrication of deck panels and tunnel ring segments.
- *Processed 16 surveillances, 7 Quality Action Requests, 7 Nonconformance Reports and 1 Corrective Action Request.*

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.
- Reviewed daily inspection reports from Contractor's quality assurance inspection team. Inspections show that the work is predominately compliant.

ENVIRONMENTAL STATUS

- *Continued noise and vibration monitoring performed by DB Contractors and 3rd party consultants.*
- *Conducted review and ranking of SOQ packages for Independent Compliance Monitoring firms.*
- *Conducted field environmental monitoring and spot inspections for construction noise, stormwater BMPs, dust and cultural resources for C0145 and Third Party activities.*
- *Reviewed C1045 Contractor submittals in accordance with contact specifications and EIR requirements.*
- *Reviewed La Cienega Ventilation Plan and allowable emission levels.*
- *Researched GBR to identify represented values for groundwater concentrations of H2S at La Brea and La Cienega Stations.*
- *Assessed Contractor's proposed soil re-use request at residential development project.*
- *Coordinated cultural resources monitoring for activities in close proximity to historic buildings.*
- *Reviewed Water Discharge Reports and compared to Daily Inspection Report information.*
- *Reviewed Second Quarter Noise Control and Monitoring Plan.*
- *Reviewed Contractor's Self-Monitoring Reports for Regional Water Quality Control Board.*
- *Continued groundwater cleanup activities per the Department of Toxic Substances Control (DTSC) Voluntary Clean-Up Agreement (VCA).*
- *Continued work on Location 61S (C0178) remote fill station for interior ASTs.*
- *Participated in Construction Work Plan Workshops and Readiness Review Meetings.*
- *Held monthly Environmental Mitigation (MMRP) with C1045 Contractor.*
- *Conducted weekly Environmental Compliance Progress Meeting.*
- *Participated in C1045 Contract Coordination Meeting.*
- *Attended weekly meetings with City of Los Angeles and Beverly Hills.*

CONSTRUCTION RELATIONS STATUS

- *Produced and distributed 10 construction work notices for advance utility relocations and construction activities*.
- *Made Project Presentations at the following: Earth Day Event at BH Farmers Market, Meeting with LACMA, Mid City West Community Council, Mid City West Transportation Committee Meeting, Miracle Mile Chamber Event, Board of Public Works, Gallery Owners Meeting at Fairfax, Hot 8 Yoga Meeting, Saban Meeting and The Flats Meeting.*
- *Construction issues: Noise complaints regarding utility work at Wilshire/La Cienega and the ventilation fans located at S. La Brea staging yard.*
- Visited and updated businesses and residences at future station locations to discuss center opening on Wilshire Blvd. at Sycamore, La Brea excavation, utility relocations, decking installation at Wilshire/Fairfax, Wilshire/La Cienega, k-rail installation and piling activities, business profiles and new 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 and AUR, Marketing, Social Media, Eat, Shop, Play, Bus Relocations and Stops and DOT/Elected Officials.
- Updated website, Facebook, Twitter as needed.
- Continued with the “Eat, Shop, Play Spotlight” campaign to advertise and promote businesses that participate in ESP Wilshire.

CREATIVE SERVICES STATUS

- Continued to refine project artwork opportunities and locations.
- Responded to RFIs and submittals.
- Participated in Design Build Workshops and document reviews.
- Conducted Art Panel coordination.
- *Conducted stakeholder briefings for the City of Beverly Hills*
- *Hosted Family Workshop at the Original Farmer’s Market.*

SAFETY & SECURITY STATUS

- *There were no recordable injuries during April 2017.*
- Metro continues to work with the D/B contractor to insure adequate Construction Safety Staffing in compliance with the Contract.
- Design Builder's construction activities (day and night) and the C1078 Maintenance of Way Building site continue to be monitored to document contractor compliance with contract specifications.
- Safety staff attended weekly Progress Meetings, readiness reviews, and other project meetings to evaluate Contractors Safety Program compliance with contract requirements.
- *Metro Construction Safety hosted Monthly All Hands Safety Meeting for all Westside-Purple Line Extension Contractors (including environmental contractors) on April 25, 2017.*
- Construction Safety staff 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.
- The statistics below continue to be estimates due to the under-report of hours discussed previously. Metro staff is working with the contractor to return to the actual reported numbers.
- *March 2017 Contractor Work Hours (Design & Construction): 59,200*
- *Contractor - Project to Date Work Hours (Design & Construction) (through 3/31/2017): 1,290,277*
- *Total Project to Date Work Hours (Contractor & the IPO Staff) (through 3/31/2017): 1,678,381*
- *Project to Date Recordable Injury Rate: 0.7 (Six Recordable Injuries) (each rate is per 200,000 work hours) (National Rate: 2.8)*
- *Project to Date Total Time Away Injury Rate: 0.4 (Three Time Away From Work Injuries) (National Rate: 1.7)*
- *Project to Date Total Days Away Rate: 26.9 (226 Days Away From Work) (No National Rate Published)*
- National Rates for Heavy and Civil Construction (NAICS Code 237) are for Calendar Year 2015, published by USBLS in October 2016.

THIRD PARTY AGREEMENT STATUS

Third Party	Type of Agreement	Forecast Execution Date	Required Need Date	Status/ Comments
City of Los Angeles (LA)	Master Cooperative Agreement	N/A	N/A	Parties will work under 2003 MCA.
City of Beverly Hills (BH)	Memorandum of Agreement (La Cienega only)	9/14 (AUR) 02/17 (D/B)	9/14 (AUR) 1/17 (D/B)	City of Beverly Hills approved the MOA for the C1056 Wilshire/La Cienega AUR contract on August 19, 2014. City Council approved the MOA for the C1045 Design/Build contract on February 21, 2017. Required Need Date reflects the early contractual turnover date to C1045 contractor for all areas at Wilshire/La Cienega.
Los Angeles Department of Water and Power	Master Cooperative Agreement	N/A	N/A	Metro and LADWP will continue to work under the terms of the previous MCA.
Los Angeles County Public Works	Master Cooperative Agreement	4/11	3/12	Executed
Caltrans	Master Cooperative Agreement	8/11	3/12	Executed
Private Utilities	Utility Cooperative Agreement	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

- *Additional AT&T work has been identified in City of Beverly Hills at the Wilshire/La Cienega Station to relocate an easement and phone lines within and adjacent to the station plaza area. This work is anticipated to be completed in June 2017.*

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.

- *A Peak Hour Exemption for the Wilshire/Fairfax Station south side K-Rail setup has been approved by the City of Los Angeles for the dates of March 15, 2017 through July 31, 2017.*
- *A Peak Hour Exemption for the center muck shaft at Wilshire/La Brea Station has been approved by the City of Los Angeles for the dates of April 13, 2017 through Nov. 17, 2017.*
- *The Nighttime Noise Variance for the Wilshire/La Brea Advanced Utility Relocation work has been extended to Nov. 18, 2017 by the Los Angeles Police Commission.*
- The Nighttime Noise Variance for the Wilshire/Fairfax Advanced Utility Relocation work has been extended to July 16, 2017 by the Los Angeles Police Commission.
- The Nighttime Noise Variances for the five yard locations in the City of Los Angeles (North La Brea, South La Brea, Fairfax, Western and Crenshaw) have been extended to July 15, 2017 by the Los Angeles Police Commission.
- *The Nighttime Noise Variance for the decking and excavation work at Wilshire/La Brea Station has been extended to May 31, 2017 by the Los Angeles Police Commission.*
- A Nighttime Noise Variance for decking and excavation work at Wilshire/Fairfax Station has been approved for the dates of January 2, 2017 through July 2, 2017.
- A Nighttime Noise Variance for utility relocations at the Division 20 MOW site has been approved for the dates of February 20, 2017 through June 20, 2017.

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
July 2013	Completed Final Design - C1048 - Advanced Utility Relocations contract – Wilshire/La Brea

CHRONOLOGY OF EVENTS (Continued)

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
December 2015	Began piling operations for Wilshire/La Brea Station
June 2016	Began deck beam and decking operations for Wilshire/La Brea Station
August 2016	Began piling operations for Wilshire/Fairfax Station
August 2016	Contract C1056 achieved Substantial Completion

CHRONOLOGY OF EVENTS (Continued)

February 2017	Began deck beam and decking operations for Wilshire/Fairfax Station
March 2017	Began piling operations for Wilshire/La Cienega Station

CONTRACT C1045 STATUS

Description: Westside Purple Line Extension Design-Build

Contractor: SKANSKA - TRAYLOR - SHEA

Contract No. **C1045**

Status as of: **April 28, 2017**

Progress / Work Completed:

- Cross Passage 4 jet grouting (along Wilshire Blvd) complete
- Wilshire/Fairfax street decking (stages 1 through 10) complete
- Design Unit #6 Systems – 100% Design complete
- Wilshire/Fairfax noise barrier (along Wilshire Blvd.) completed

Major Activities (In Progress):

- Wilshire/La Brea Station excavation continues
- Wilshire/La Brea tie-back and strut installation continues
- Wilshire/Fairfax installation of temporary ventilation system continues
- Wilshire/Fairfax deck beams and decking installation continues
- Wilshire/La Cienega piling installation continues
- Wilshire/La Cienega geotechnical installation continues
- Design Unit #6 Systems – AFC Review

Areas of Concern:

Dewatering and utility hanging (gas, storm drain, sewer) activities have impacted Wilshire/La Brea Station excavation. STS has developed a recovery schedule that is currently under review by Metro. This recovery schedule mitigates the impacts experienced with the La Brea Station excavation operation. Other options for float recovery continued to be explored.

Major Activities Next Period:

- Wilshire/La Brea under deck excavation continues
- Wilshire/Fairfax street decking installation continues
- Wilshire/La Cienega pile installation continues

Schedule Summary:

Date of Award:	11/04/14
Notice to Proceed:	01/12/15
Original Contract Duration:	3250 CD
Current Contract Duration:	3250 CD
Elapsed Time from NTP:	837 CD

	Original Contract Dates	Time Extension	Current Contract	Forecast	Variance CDs
Notice to Proceed (Estimated)	01/12/15	0	01/12/15	01/12/15	0
Milestone 1: Substantial Completion	06/09/23	0	06/09/23	06/09/23	0
Milestone 2: Stations available to UFS	10/07/22	0	10/07/22	10/07/22	0
Milestone 3: Start of Integration Testing to ROC	01/10/23	0	01/10/23	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:

Physical completion: 17.43%*

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

Cost Summary:

	$ In millions
1. Award Value:	1,636.4
2. Executed Modifications:	6.1
3. Approved Change Orders:	0.0
4. Current Contract Value (1+2+3):	1,642.5
5. Incurred Cost:	533.2

CONTRACT C1078 STATUS

Description: Building 61S (MOW/NRV)
Contractor: Clark Construction

Contract No. **C1078**
Status as of: **April 28, 2017**

Progress / Work Completed:

- Sanitary relocation complete
- Continue design development and any necessary "over the shoulder" reviews
- Final storm drain design and shoring plans approved by LABOE
- Necessary material for storm drain relocation delivered to site

Major Activities (In Progress):

- Contractor continues design development
- CN-00008: Relocation of 8" sanitary sewer (deletion). Mod issued to Contractor for signature
- Processing CN-00010: Construction impacts of relocating building CSP in review and completion of TA and PNP. Fact finding ongoing CO NTE issued to Contractor
- Processing CN-00011: Schedule impacts to 3rd Party contractor work CN on hold to possible SOW revision. Completion of CSP and ICE to follow
- Processing CN-00012: City of Los Angeles access gate. CN issued to the Contractor for CSP. Fact finding completed. Pending Cost-Schedule Proposal (CSP)

Areas of Concern:

- Property exchange agreement with Chalmers LLC needs to be finalized. Escrow is open and prerequisites for closing are being determined.
- Construction Mobilization in order to identify the Contractual Milestone Completion date and any potential impacts to follow on contractor.

Major Activities Next Period:

- Start of storm drain relocation
- Completion of sanitary sewer lateral and sump pump across Lucky Brand Jeans
- Prepare for start of Phase II by Environmental Contractor

Schedule Summary:

Date of Award:	08/03/15
Notice to Proceed:	09/30/15
Original Contract Duration:	853 CD
Current Contract Duration:	1023 CD
Elapsed Time from NTP:	576 CD

	Original Contract Dates	Time Extension	Current Contract	Forecast	Variance CDs
Notice to Proceed (Estimated)	09/30/15	0	0	09/30/15	0
Milestone 1: Substantial Completion	01/30/18	170	1023	07/19/18	-170

Physical Percent Complete:

Physical completion: 13.68%

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

Cost Summary:

	$ In millions
1. Award Value:	$ 52.8
2. Executed Modifications:	$ 0.7
3. Approved Change Orders:	$ 4.2
4. Current Contract Value (1+2+3):	$ 57.7
5. Incurred Cost:	$ 12.8

CONSTRUCTION PHOTOGRAPHS

Under Deck Excavation at Wilshire/La Brea Station

Wilshire/Fairfax Decking Operation in Progress

APPENDIX

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.

APPENDIX

LIST OF ACRONYMS AND ABBREVIATIONS

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
CM	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
CPM	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

APPENDIX

LIST OF ACRONYMS AND ABBREVIATIONS (Continued)

FTA	Federal Transit Administration
FTE	Full Time Equivalent
GBR	Geotechnical Baseline Report
GDSR	Geotechnical Design Summary 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
OCC	Operations Control Center
OSHA	Occupational Health and Safety Administration
PA/VMS	Public Address/Visual Messaging Sign
PE	Preliminary Engineering

APPENDIX

LIST OF ACRONYMS AND ABBREVIATIONS (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
SOE	Support of Excavation
SOQ	Statement of Qualification
SOV	Schedule Of Value
SOW	Statement Of Work

APPENDIX

LIST OF ACRONYMS AND ABBREVIATIONS (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
TBM	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