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**TO:** DISTRIBUTION

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**SUBJECT:** WESTSIDE PURPLE LINE EXTENSION SECTION 1 PROJECT  
SEPTEMBER 2020 QUARTERLY PROJECT STATUS REPORT

Enclosed herewith is the Quarterly Project Status Report for the Westside Purple Line Extension Section 1 Project. This report contains the Los Angeles County Metropolitan Transportation Authority's (LACMTA) representation of the Westside Purple Line Extension Section 1 Project status for the period ending October 2, 2020.

If you have any questions regarding this report or its supporting information, please contact Rick Wilson, Executive Officer, Program Control at (323) 900-2113.

JC: ah  
Enclosure



# Westside Purple Line Extension Section 1 Project





# **Westside Purple Line Extension Section 1 Project**

## **QUARTERLY 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).

**September 2020**



## TABLE OF CONTENTS

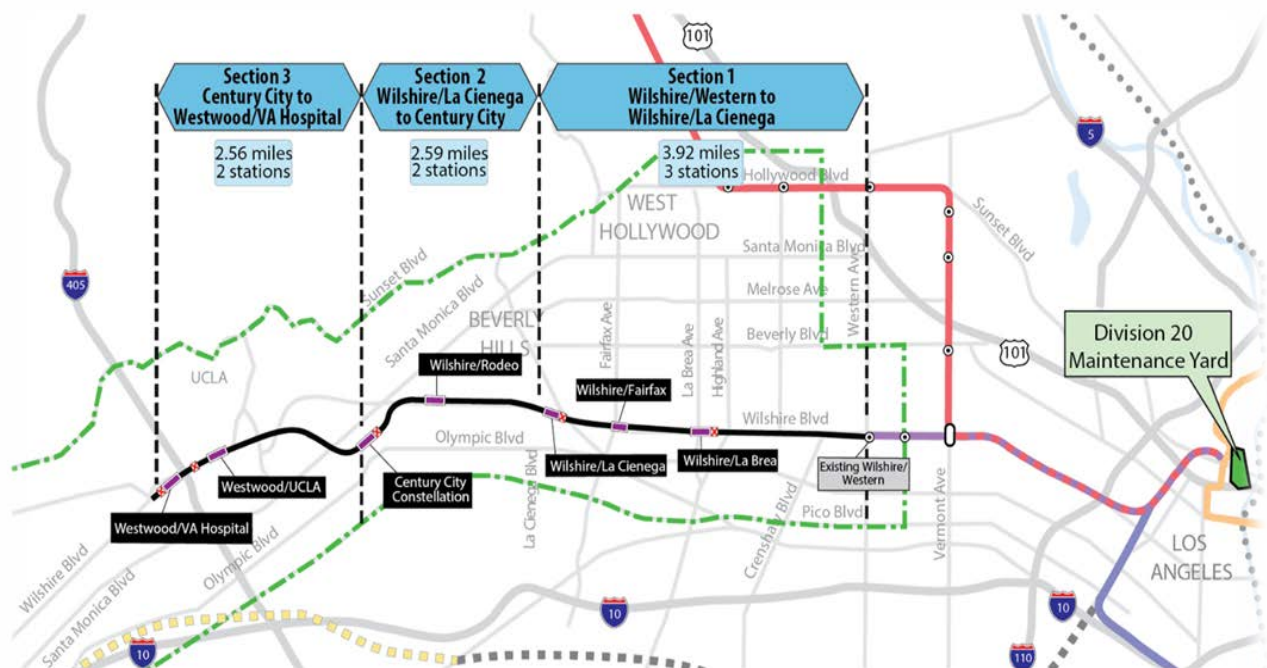
Project Overview.....	1
Executive Summary.....	6
Project Status.....	9
Project Schedule.....	9
Project Summary Schedule.....	9
Progress Summary.....	10
Planned vs. Actual Progress.....	10
Key Milestones Six-Month Look Ahead.....	11
Major Equipment Delivery.....	12
Critical Path.....	13
Project Schedule Contingency Drawdown.....	14
Risk Management Narrative.....	15
Project Cost.....	16
Project Cost Status & Analysis.....	16
Cost Contingency Drawdown & Analysis.....	17
Summary of Contract Modifications.....	18
Disadvantaged Business Enterprise (DBE).....	19
Project Labor Agreement.....	20
Financial/Grant.....	21
Project Staffing.....	22
Real Estate.....	24
Quality Assurance Report.....	25
Environmental.....	26
Construction and Community Relations.....	27
Creative Services.....	27
Safety and Security.....	28
Appendices.....	29
Chronology of Events.....	29

## PROJECT OVERVIEW

### Project Background

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.

### **Major Procurements**

#### 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 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 Location 64

The Design/Build contract provided for the 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 64). The displacement of the former MOW stores building and NRV facility are due to the future turn-back facility site in the yard. The contract was substantially completed on May 1, 2019.

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.

## Program Management

The Westside Purple Line Extension Section 1 Project is being managed under the direction of an Integrated Project Management Office (IPMO). WSP provides engineering and design support services, while the Westside Extension Support Team (WEST) provides construction management support services. An overview of staffing is provided under the Staffing section of this report. The on-site program management team is also supported by Metro Headquarters resources to include, but not be limited to, engineering, risk management, environmental, quality management, operations and creative services departments.

Project Schedule and Budget: The Revenue Service Date (RSD) is planned for 2023.

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. The Current Budget and Current Forecast remain the same this period at \$3.2 billion. A detailed Life of Project Budget forecast is included under the Budget and Cost Forecast Section of this report.

Funding has been secured from a variety of sources to include:

- Federal Section 5309 New Starts
- Federal Section 5339 Alternative Analysis
- Measure R – TIFIA Loan (Transportation Infrastructure Finance & Innovation Act)
- Measure R 35%
- State STIP RIP
- CMAQ (Congestion Mitigation & Air Quality)
- State Capital Project Loans
- City of Los Angeles

Construction and Community Relations: The Construction and Community Relations team is tasked with promoting the Project and performing public outreach within the community to keep stakeholders informed of construction activities occurring along the Project alignment. To facilitate communication, community leadership councils have been formed which represent geographic-based constituent groups along the Project.

The Project is also engaged in social media outreach and various marketing and advertising efforts designed to keep the public informed and excited about the Project. These efforts are aimed at promoting businesses that are affected by construction. An overview of monthly activities is presented in the Construction and Community Relations section of this report.

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.

## EXECUTIVE SUMMARY

*In September 2020, the Project achieved 65.0% completion based on earned value measurements for design and construction. The critical path of the project has shifted from Wilshire/Fairfax Station structural concrete placement to the completion of the TBM tunnel drive, which is currently scheduled to complete in November 2020. The project team is reviewing any impacts differing site conditions and third-party requirements may be having on the schedule.*

Currently, the C1045 Design/Build Contract substantial completion date remains June 15, 2023, and the forecast Revenue Service Date (RSD) for the Project remains on targeted for completion in 2023.

### Design Status

The C1045 Contractor, Skanska, Traylor and Shea (STS), and their final design team, Parsons Transportation Group (PTG), completed final design in June 2017.

The Engineering Management Services (EMS) team continues to provide engineering services during construction to the C1045 design/build contract.

### Construction Status

*As of September 30, 2020, the Red TBM (Soyeon) has mined 2,039 feet (62% complete) of the Reach 3 tunnel, and the Purple TBM (Elsie) has mined 2,297 feet (70% complete) of the Reach 3 tunnel. To date, seven (7) out of 12 Reach One (1) cross passages have been excavated. Concrete placement for three (3) cross passages has been completed (#10, #11, #13). Work continues at all other cross passages.*

*At Wilshire/La Brea Station, structural concrete placements continue with the next roof placement (Block 5) scheduled for October 17, 2020. Slurry placement above the roof (Blocks 6-13), which marks the start of station backfilling, is scheduled to start on October 14, 2020. Plenum structural steel activities are underway. Appendage #1 excavation at Wilshire/Orange is in progress.*

*At Wilshire/Fairfax Station, interior wall concrete placements are scheduled in October 2020. Level B & C strut removal from the concourse level is progressing. Work on the entrance structure and three appendages (Emergency Exit, Fan Room, Mechanical Room / Air Supply & Exhaust) move forward.*

*The first roof placement (Block 7) at Wilshire/La Cienega Station was completed on September 26, 2020. The next roof placement (Block 6) is scheduled for October 16, 2020. Mud mat placement for the entrance structure is also scheduled for October 16, 2020. Daily maintenance of dewatering wells continues, along with maintenance of surface aesthetics per the City of Beverly Hills (COBH) Memorandum of Agreement (MOA).*

The design/build contractor for the Division 20 Maintenance-of-Way and Non-Revenue Vehicle Building Location 64 Contract (C1078) achieved substantial completion on May 1, 2019. The contractor continues to work on final punch list items.

The C1045 design/build contractor has taken possession of the rail site at the Division 20 Rail Yard. *The rail welding subcontractor is scheduled to mobilize the welding plant on October 19, 2020.* The current target completion date to complete rail welding is November 2020.

**Cost and Schedule Summary**

For the C1045 Design/Build contract, the re-sequenced schedule, which reflects the current construction approach for the remainder of the project, has been incorporated into the schedule update process in July 2020. *Metro has received the September 2020 schedule update, which reports the substantial completion date finishing 154 calendar days after the June 15, 2023 contractual date.*

The project team is reviewing any impacts differing site conditions and third-party requirements may be having on the schedule. At this time, the contractual substantial completion date remains June 15, 2023.

*The critical path of the project has shifted from the placement of Wilshire/Fairfax Station structural concrete to the completion of the TBM tunnel drive, followed by Wilshire/La Cienega Station structural concrete placement and finishes, systems, testing and pre-revenue operations.* A summary graphic of the critical path is found on Page 13.

**C1045 Design-Build Contract Schedule Metrics**

	<b>Original Contract Date/Duration</b>	<b>Time Extension (CD)</b>	<b>Current Contract Schedule</b>	<b>Forecast (Metro PMS)</b>	<b>Variance CD (Trending)</b>
NTP	01/12/2015				
Substantial Completion	06/9/23	6	11/16/23	06/15/23	-154 days

The project budget and cost forecast has been adjusted to reflect the project's \$200M LOP budget increase approval by Metro's Board. The Current Budget and Current Forecast for the Project are both at \$3.4 billion. There are no claims on the Project. Detailed cost and budget information is provided on Page 17.

**Key Management Concerns**

The project team is reviewing any impacts differing site conditions and third-party requirements may have on the project schedule.

Project Construction Photos



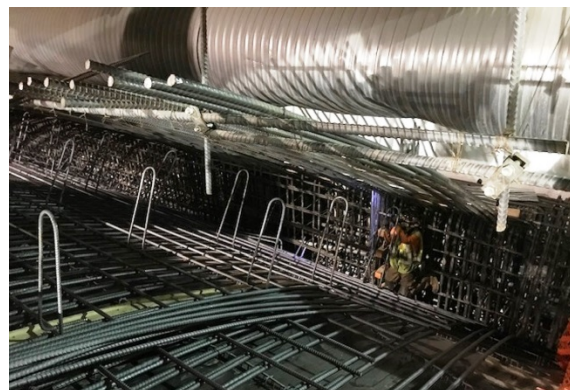
Conduit Installation on Wilshire/La Brea Station Roof



Strut Removal at Wilshire/Fairfax Station



Wilshire/Fairfax Station West Hammerhead



Rebar Installation on Wilshire/La Cienega Station Roof



Potholing at Wilshire/San Vicente (Reach 3)

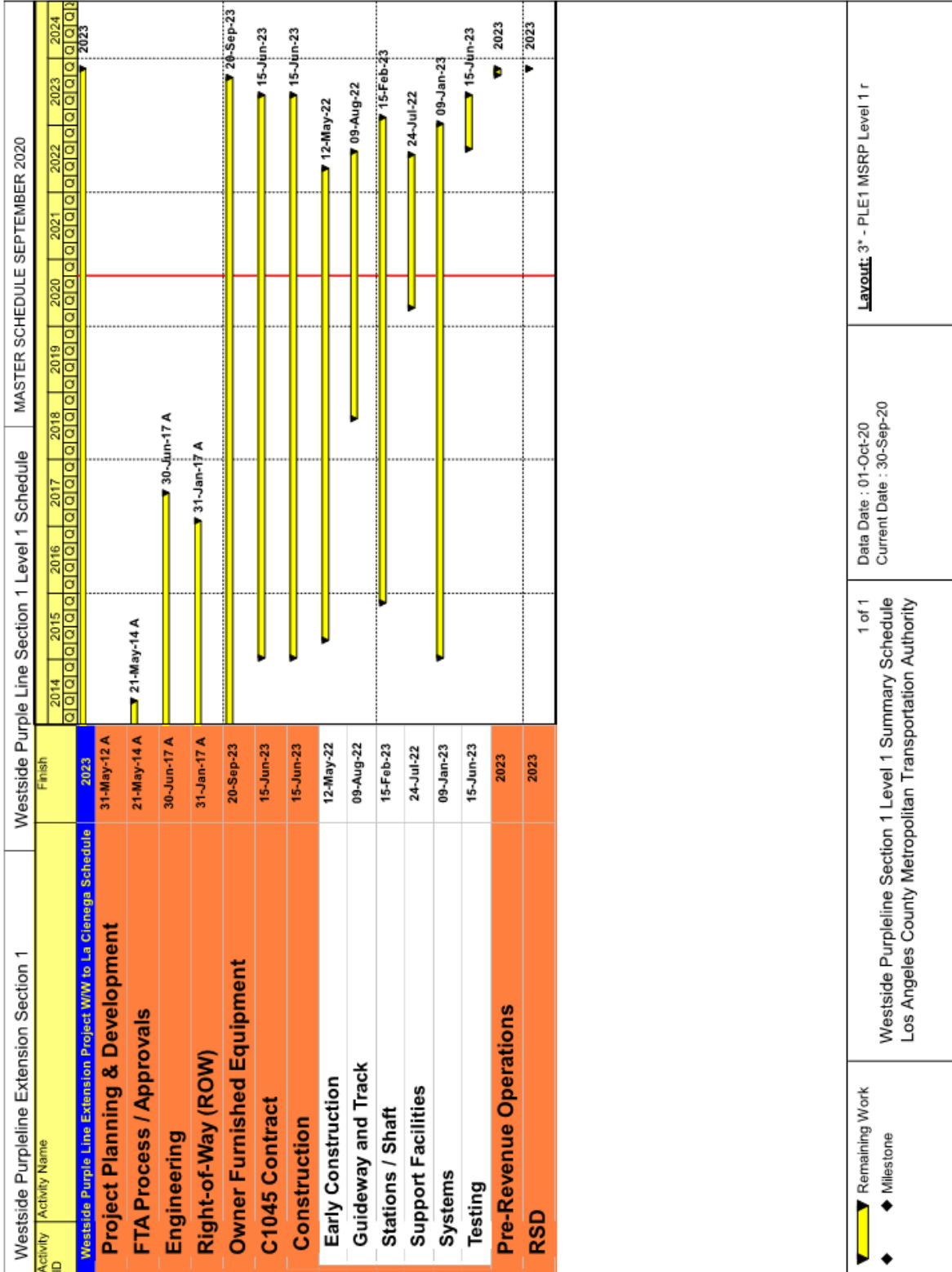


Cross Passage #15 (Reach 1) Formwork Installation

# PROJECT STATUS

## PROJECT SCHEDULE

### Project Summary Schedule



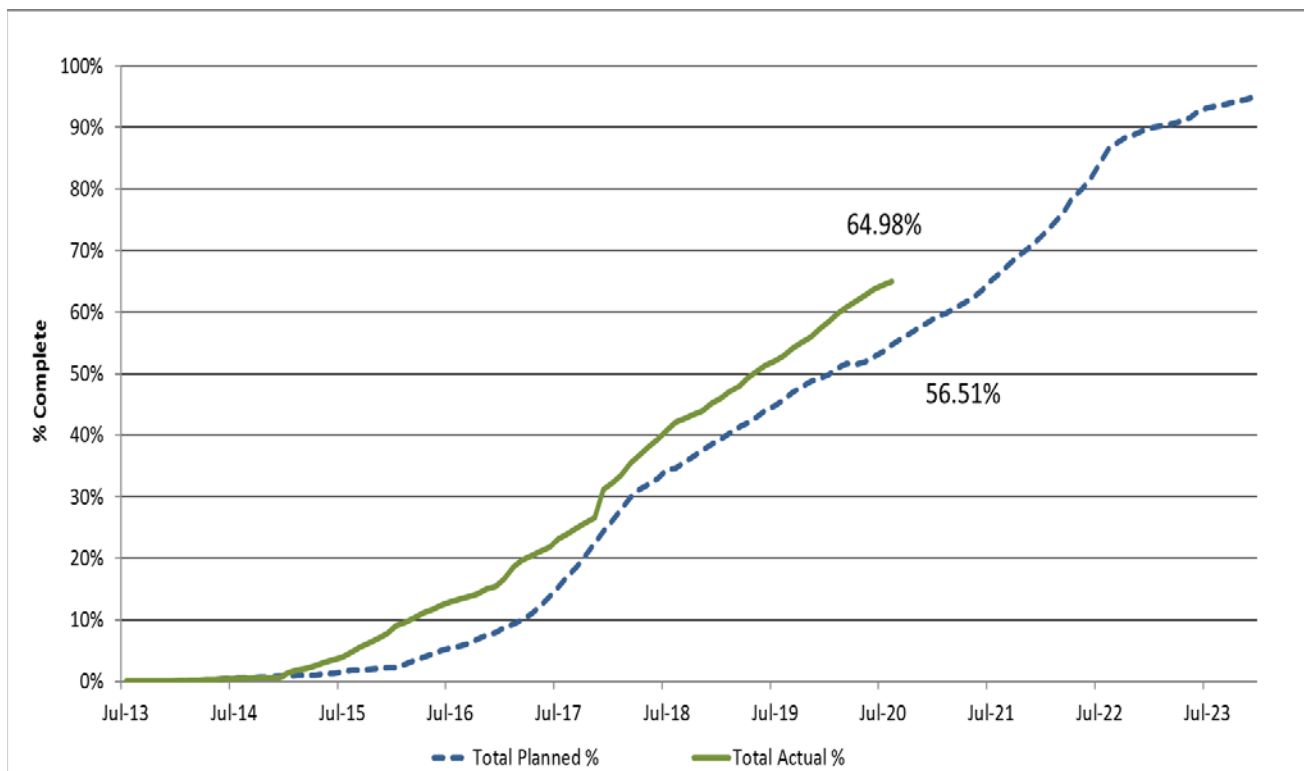


**Progress Summary**













	Status	Change from Last Period	Comment
Forecast Revenue Service	2023		Reviewing impacts from DSCs / 3rd Party Reqs.
TIFIA Revenue Service	10/31/2024	None	
FFGA Revenue Service	10/31/2024	None	
<b>Final Design Progress:</b>			
Contract C1045	100.0%	0.0%	
Contract C1078	100.0%	0.0%	
<b>Construction Contracts Progress:</b>			
Contract C1048	100.0%	0.0%	Completed on Schedule
Contract C1045	62.4%	0.6%	
Contract C1055	100.0%	0.0%	Completed on Schedule
Contract C1056	100.0%	0.0%	Completed on Schedule
Contract C1078	99.9%	0.0%	Punchlist/Close-out Remain









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

**Planned vs. Actual Progress**



**Key Milestone Six-Month Look Ahead**

	Milestone Date	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21
Wilshire/Fairfax: Placed Invert Slab - Entrance Structure	9/9/2020 A						
Wilshire/La Cienega: 1st Concrete Placement - 2nd Lift Walls (High Bay)	9/11/2020 A						
Wilshire/Fairfax: Placed Lower Invert Slab - Appendage A1C	9/22/2020 A						
Wilshire/La Brea: Commence Plenum Steel Beam Installation	10/13/20						
Wilshire/La Brea: Slurry Placement on Top of Roof Deck Begins	10/14/20						
Wilshire/La Cienega: Roof Concrete Placement (Block 6)	10/16/20						
Wilshire/La Cienega: Protection Slab Placement - Entrance Structure	11/10/20						
Commence Reach 1 Tunnel Invert Concrete Activities	11/12/20						
Division 20 Rail Yard: Complete Welding Running Rail	11/20/20						
Wilshire/Fairfax: Complete Lift 2 Wall Placement (High Bay Area)	12/14/20						
Wilshire/Western Retrieval Shaft: Place Protection Slab	01/22/21						
Wilshire/La Brea: Appendage #4 Work Activities Commence	02/18/21						

 MTA Staff     
  MTA Board Action     
  FTA (Federal Transit Administration)     
  Utility Company  
 Other Agencies     
  Contractors     
  Design Consultant     
  D/B Contractor  
 "A" following date is actual and completed     
 \* New

**Major Equipment Delivery**

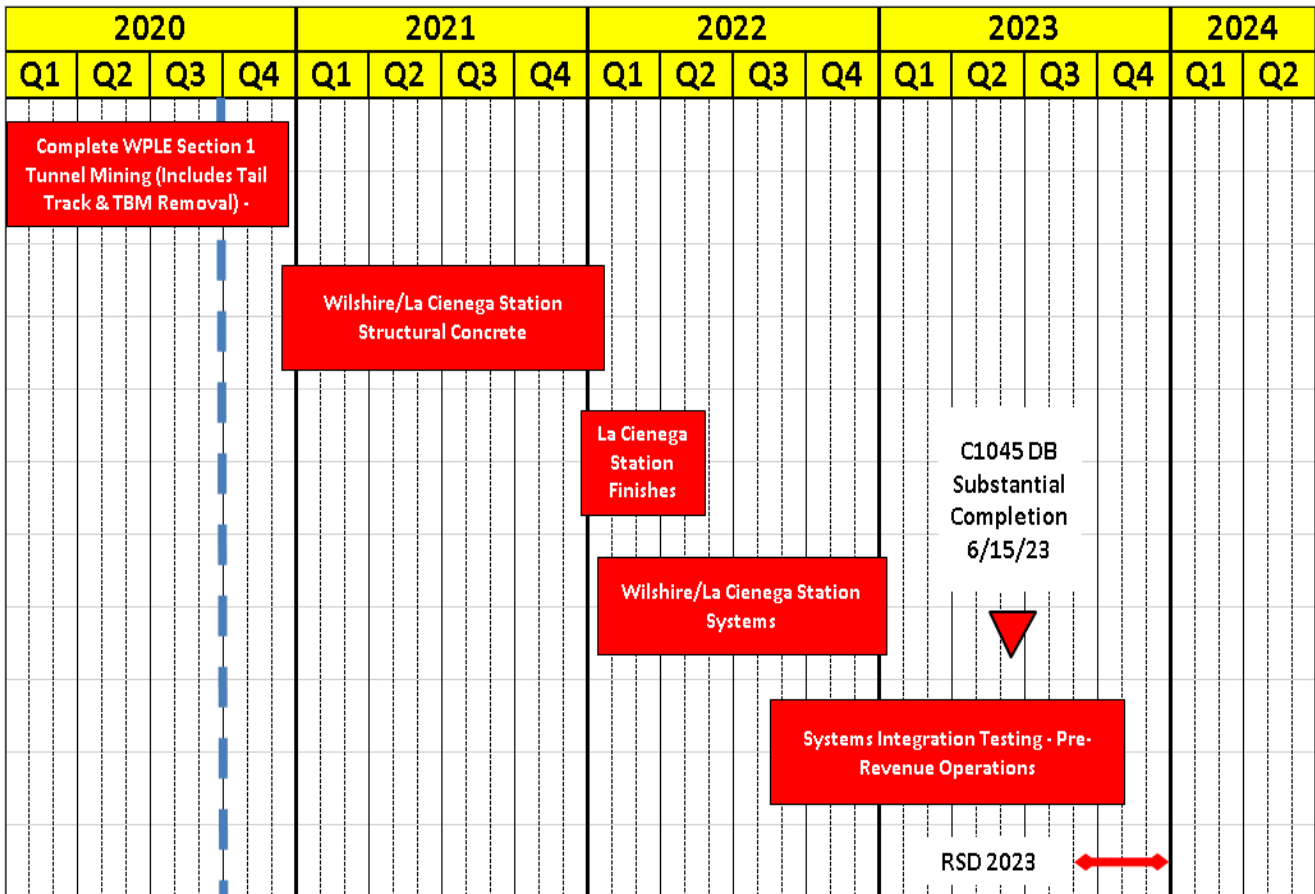
	Submittal	Procurement	Delivery	Installation
<b>C1045 DESIGN/BUILD*</b>				
Tunnel Boring Machine	1/29/16A	8/14/2017A	12/15/17A	7/13/18A
Emergency Ventilation Fans	11/30/18A	4/1/19A	4/23/21	4/26/21
Station Elevators	4/27/18A	4/27/18A	8/30/21	11/28/22
Station Escalators	4/27/18A	12/1/20	10/29/21	4/29/22
Track - Running Rail	7/09/19A	8/09/19A	4/9/20A	3/31/21
Traction Power Equipment	10/19/20	4/13/21	10/14/21	10/12/21
Automatic Train Control	4/1/16A	7/1/16A	12/20/16A	2/16/22
SCADA RTU System	2/2/17A	1/16/18A	5/18/18A	3/9/21
Radio System	2/2/17A	2/03/20A	12/30/20	6/2/21
<b>Heavy Rail Vehicles***</b>	7/16/15A	5/1/19A	3/31/23	4/15/23
<b>Universal Fare System**</b>	TBD	TBD	TBD	11/4/21

\* Dates derived from STS's September 2020 Schedule.

\*\* Forecast release date by STS to UFS contractor access at stations.

\*\*\* Metro supplied equipment

**Project Critical Path**



The re-sequenced schedule, which reflects the current construction approach for the remainder of the project, has been incorporated into the schedule update process in July 2020.

*For the month of September 2020, the critical path of the project has shifted from Wilshire/Fairfax Station structural concrete placement to the completion of the TBM tunnel drive, which is currently scheduled to complete in November 2020.*

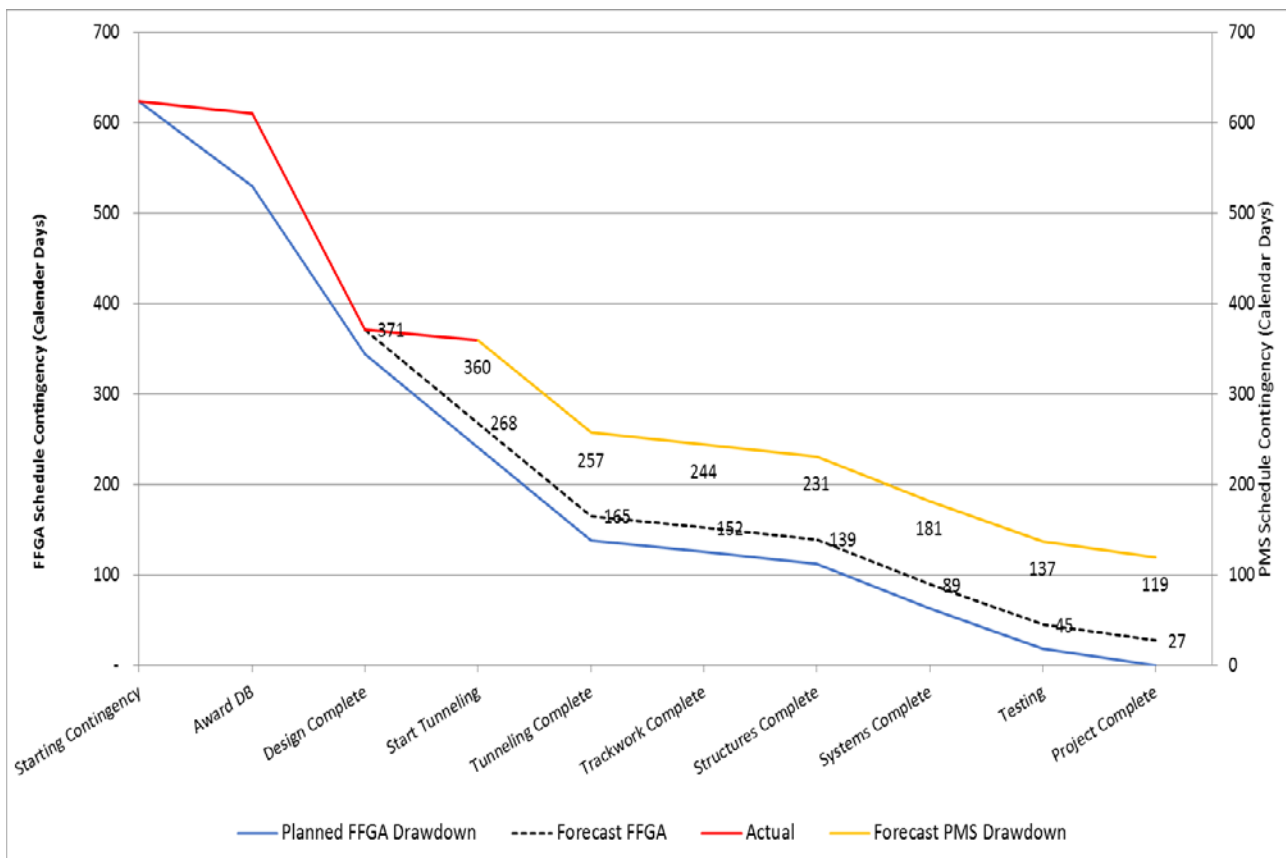
The project team is reviewing any impacts differing site conditions and third-party requirements may have on the project schedule. At this time, the Revenue Service Date remains in 2023.

**Project Schedule Contingency Drawdown Analysis**

The project schedule contingency drawdown model provides a dual-axis perspective based upon the FFGA RSD of October 2024 and Metro’s Project Master Schedule (PMS) forecast of fall 2023.

The introduction of the PMS model axis reflects a proportional distribution of available float relative to the FFGA model. Based on an October 15, 2018 actual start of TBM mining, schedule contingency appears to maintain a noticeable buffer from the FFGA model. This model will be updated when TBM mining is complete, which is anticipated in Q4 2020.

With regards to the FFGA RSD, schedule float of twelve (12) months has been maintained.



**Risk Management Narrative**

**Summary of Risks**

*During the quarterly risk register meeting, two (2) new risks were identified and one (1) risk was closed. A total of thirty-five (35) risks remain to be managed in the next quarter.*

*Of the thirty-five (35) risks, four (4) are scored as high, twelve (12) as medium and nineteen (19) as low.*

*The next WPLE Section 1 Project Risk Register quarterly update is scheduled for January 2021.*

**Top Four (4) Risks**

*The table below shows the top four (4) project risks.*

**Top Risks**

Risk ID	Risk Description	Risk Score	Action Items
678.0	COVID-19 Pandemic Impact	20	1. Evaluate state and local government guidelines 2. Put contingency plans in place.
625.1	Encountering unknown anomalies during tunneling (e.g. tie-backs, steel beam, oil wells).	14	1. Continued investigation of anomaly under investigation at western array of Reach 3. 2. Work activities for surface chemical grouting from inside the box culvert and from the surface is underway. 3. Project impacts are currently being assessed.
202.0	Areas with concentrated methane and H2S presence will complicate construction progress and safety, increase price and may cause delays.	12	1. Metro has strict safety requirements in place, which are part of the safety requirements for contractors. Metro will further supplement existing safety requirements based on Geotechnical/Environmental investigations. 2. The Gas Task Force has been reassembled. 3. Reach 2 Tunneling has been completed. Currently mining Reach 3 tunnel.
676.0	Subcontractor ability to get the required resources to perform work.	10	1. Actively manage schedule and resource needs.

## PROJECT COST

### Project Cost Analysis – 865518

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	-	452,400	645	404,122	5,159	266,499	-	452,400	-
20	STATIONS, STOPS, TERMINALS, INTERMODAL	440,621	-	572,197	-	535,138	4,847	335,422	-	572,197	-
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	43,323	-	46,012	-	45,712	-	45,698	-	46,012	-
40	SITWORK & SPECIAL CONDITIONS	751,566	-	825,008	(29)	788,340	3,455	625,361	-	825,008	-
50	SYSTEMS	113,574	-	118,995	-	102,207	249	32,912	-	118,995	-
<b>CONSTRUCTION SUBTOTAL (10-50)</b>		<b>1,737,378</b>	<b>-</b>	<b>2,014,612</b>	<b>617</b>	<b>1,875,519</b>	<b>13,711</b>	<b>1,305,891</b>	<b>-</b>	<b>2,014,612</b>	<b>-</b>
60	ROW, LAND, EXISTING IMPROVEMENTS	175,634	-	202,980	-	202,980	-	184,427	-	202,980	-
70	VEHICLES	160,196	-	108,302	-	98,248	845	24,549	-	108,302	-
80	PROFESSIONAL SERVICES	412,710	-	575,463	3,300	455,350	3,481	398,697	-	575,463	-
<b>SUBTOTAL (10-80)</b>		<b>2,485,918</b>	<b>-</b>	<b>2,901,357</b>	<b>3,917</b>	<b>2,632,096</b>	<b>18,038</b>	<b>1,913,564</b>	<b>-</b>	<b>2,901,357</b>	<b>-</b>
90	UNALLOCATED CONTINGENCY	248,592	-	38,153	-	-	-	-	-	38,153	-
100	FINANCE CHARGES	375,470	-	375,470	-	-	-	-	-	375,470	-
<b>TOTAL PROJECTS 465518 &amp; 865518 (10-100)</b>		<b>3,109,980</b>	<b>-</b>	<b>3,314,980</b>	<b>3,917</b>	<b>2,632,096</b>	<b>18,038</b>	<b>1,913,564</b>	<b>-</b>	<b>3,314,980</b>	<b>-</b>
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	-
<b>TOTAL PROJECTS 405518 &amp; 465518 (ENV / PLAN'G)</b>		<b>39,370</b>	<b>-</b>	<b>39,370</b>	<b>-</b>	<b>39,370</b>	<b>-</b>	<b>39,357</b>	<b>-</b>	<b>39,370</b>	<b>-</b>
<b>TOTAL PROJECTS 405518, 465518 &amp; 865518</b>		<b>3,149,350</b>	<b>-</b>	<b>3,354,350</b>	<b>3,917</b>	<b>2,671,466</b>	<b>18,038</b>	<b>1,952,921</b>	<b>-</b>	<b>3,354,350</b>	<b>-</b>

#### 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 \$3.4 billion.

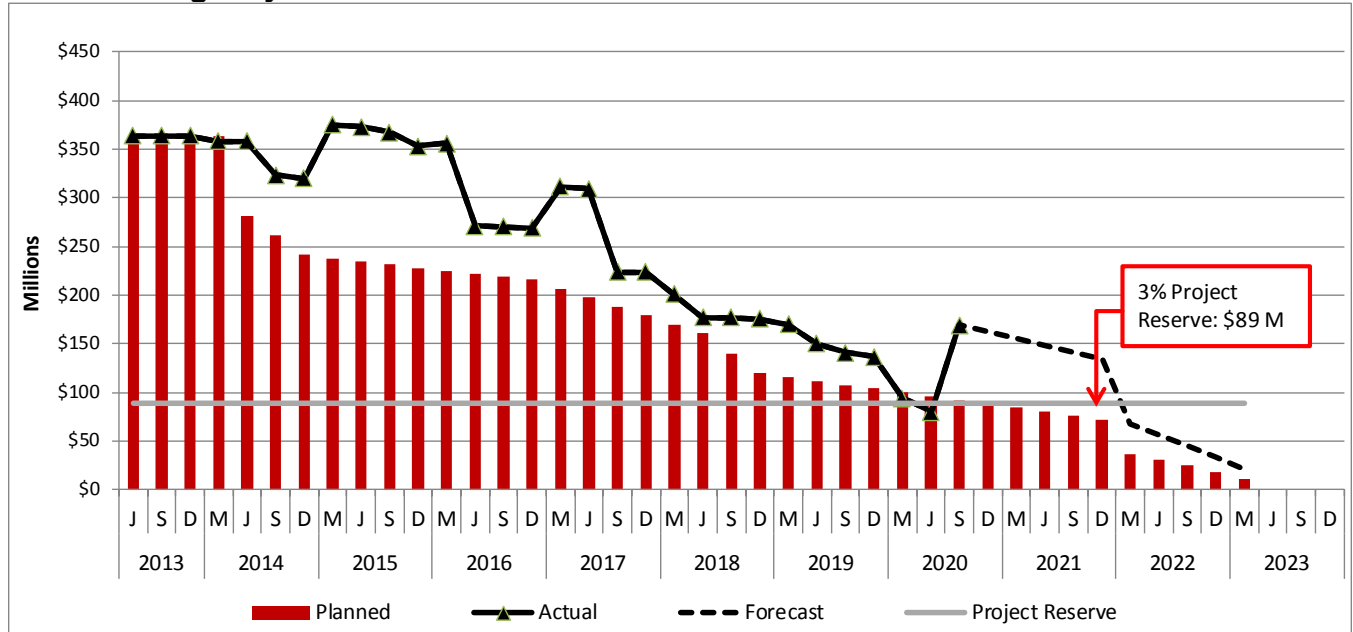
#### Commitments

The Commitments increased by \$3.9 million primarily due to the approved City of Beverly Hills Memorandum of Agreement (MOA) FY21 annual work plan and an executed Contract Modification for the Design/Build Contract C1045. The \$2.7 billion in Commitments to date represent 79.6% of the Current Budget.

#### Expenditures

The Expenditures increased by \$18.0 million for costs associated with the Design/Build Contract C1045, Vehicle Procurement Contract, City of Los Angeles Master Cooperative Agreements, Engineering Management Support Services, Construction Management Support Services, and Metro Project Administration. The \$2.0 billion in Expenditures to date represent 58.2% of the Current Budget.

**Cost Contingency Drawdown**



**Cost Contingency Drawdown Analysis**

The Project's Original Budget of \$3.2 billion (plus Finance Charges of \$0.4 billion) included a project cost contingency of \$320.6 million or 10.2% of the total project budget. In June 2020, the remaining contingency balance was below the 3% project reserve threshold of \$83.4 million. To date, the Project has experienced higher than expected differing site conditions, an increase in third party and safety requirements, and changes in scope.

In August 2020, the Board approved to amend the life-of-project (LOP) budget to address the cost contingency drawdowns, fund ongoing construction, third party and professional services expenses. The LOP budget was increased by \$200.0 million and the 3% project reserve is now \$89.4 million.

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

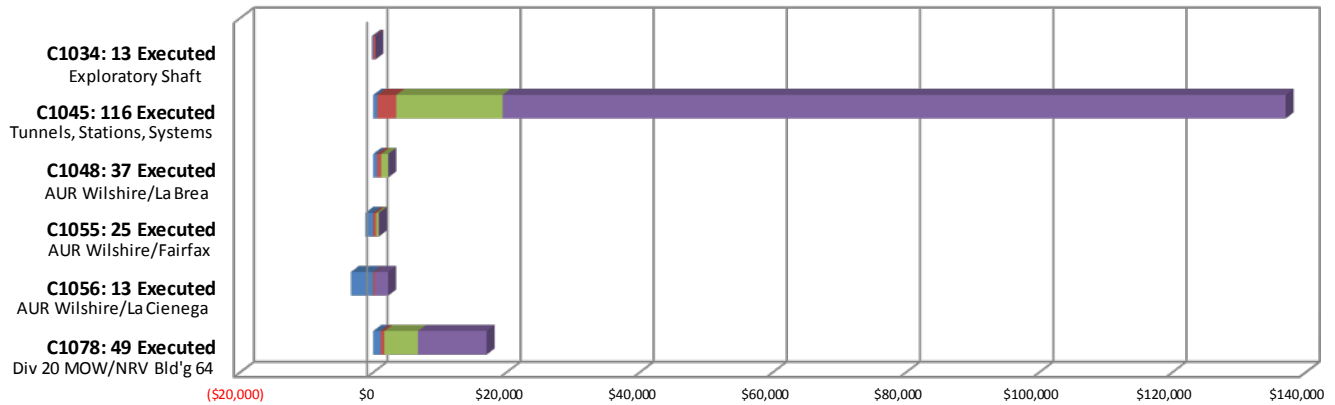
The allocated contingency decreased this period by \$0.6 million due to an executed contract modification for the Design/Build Contract C1045.

PROJECT COST CONTINGENCY					
DOLLARS IN THOUSANDS					
	Original Contingency (Budget)	Previous Period	Current Period	To-Date	Remaining Contingency (Forecast)
Unallocated Contingency	248,592	(210,439)	-	(210,439)	38,153
Allocated Contingency	71,963	59,891	(644)	59,247	131,210
<b>Total Contingency</b>	<b>320,555</b>	<b>(150,548)</b>	<b>(644)</b>	<b>(151,192)</b>	<b>169,363</b>



**Summary of Contract Modifications**

**Contract Modifications (MODs) by Cost Level**  
 Dollars in Thousands



	C1034 13 Executed	C1045 116 Executed	C1048 37 Executed	C1055 25 Executed	C1056 13 Executed	C1078 49 Executed	Total
Under \$100K	(164)	617	574	(1,179)	(3,325)	1,091	(2,387)
\$100K to \$250K	321	2,837	617	436	245	578	5,034
\$250K to \$1M	-	15,964	1,051	391	-	5,034	22,439
Over \$1M	-	117,590	-	-	1,983	10,309	129,882
<b>Total Contract MODs</b>	<b>157</b>	<b>137,008</b>	<b>2,242</b>	<b>(352)</b>	<b>(1,097)</b>	<b>17,012</b>	<b>154,969</b>
<b>Contract Award Amount</b>	<b>6,487</b>	<b>1,636,419</b>	<b>6,181</b>	<b>14,430</b>	<b>20,250</b>	<b>52,830</b>	<b>1,736,597</b>
<b>% of Contract MODs</b>	<b>2.4%</b>	<b>8.4%</b>	<b>36.3%</b>	<b>-2.4%</b>	<b>-5.4%</b>	<b>32.2%</b>	<b>8.9%</b>

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.

*One hundred and sixteen Contract MODs with a total value of \$137.0 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. The contract has been completed and is closed out.

Forty-nine Contract MODs with a total value of \$17.0 million have been executed since the award of Contract C1078 – Division 20 Maintenance-of-Way and Non-Revenue Vehicle Building Location 64.

## DISADVANTAGED BUSINESS ENTERPRISE (DBE)

*As of August 2020:*

<b>DBE Goal – Design</b> The percentage of funds apportioned to Design Contracts	20.25%
<b>Current DBE Commitment Design</b> Total DBE Committed Dollars divided by Total Contract Value for Design	\$13.6 M 20.25%
<b>Current DBE Participation</b> Total amount paid to date to DBEs divided by the amount paid to date to Prime	\$12.9 M 19.74%

Sixteen (16) Design DBE sub-consultants have been identified to date.

<b>DBE Goal – Construction</b> The percentage of funds apportioned to Construction Contracts	17.00%
<b>Current DBE Commitment Construction</b> Contract commitment divided by current contract value for Construction	\$195.8M 12.56%
<b>Current DBE Participation</b> Total amount paid to date to DBEs divided by the amount paid to date to Prime	\$151.4M 14.20%

*One hundred forty-five (145) Construction DBE sub-contractors have been identified to date.*

## PROJECT LABOR AGREEMENTS (PLA)

*As of August 2020:*

<b>Targeted Worker Goal</b> Construction work to be performed by residents from Economically Disadvantaged Areas in the United States	40.00%
<b>Targeted Worker Current Attainment</b>	61.87%
<b>Apprentice Worker Goal</b> Construction work to be performed by Apprentices	20.00%
<b>Apprentice Worker Current Attainment</b>	19.47%
<b>Disadvantaged Worker Goal</b> Construction work to be performed by disadvantaged workers	10.00%
<b>Disadvantaged Worker Current Attainment</b>	11.94%

## FINANCIAL/GRANT

### Status of Funds by Source

DOLLARS IN MILLIONS

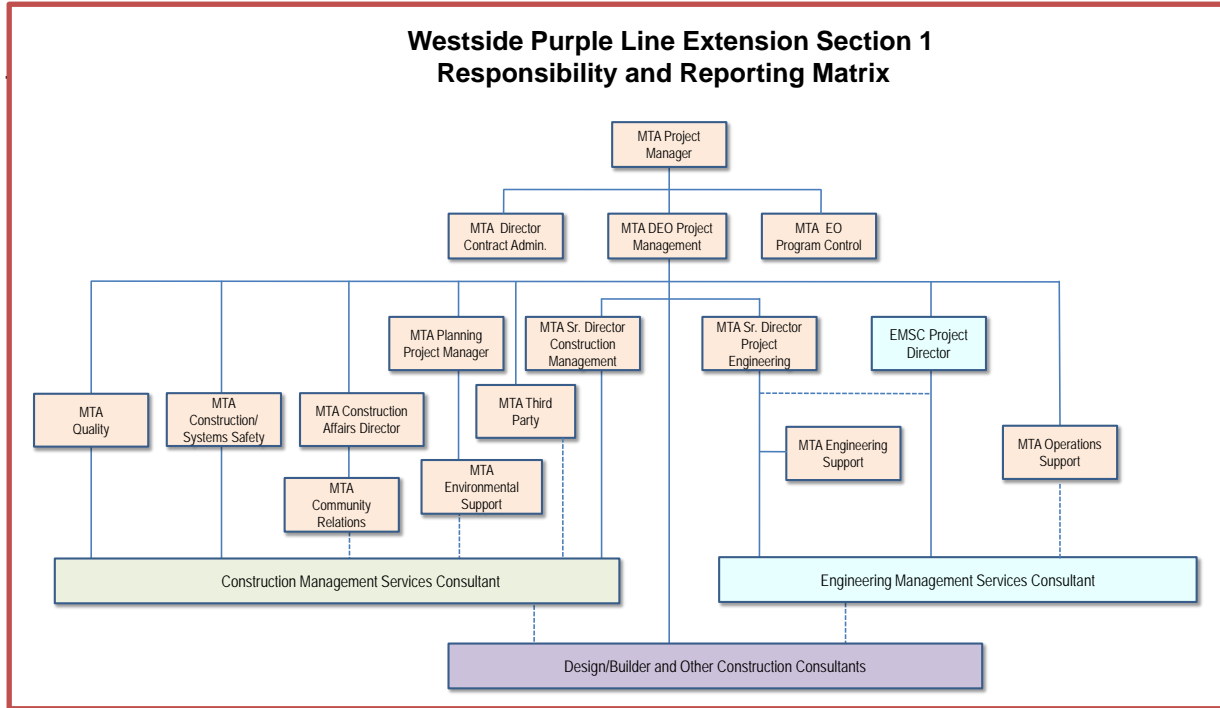
SOURCE	(A)	(B)	(C)	(D)	(D/B)	(E)	(E/B)	(F)	(F/B)
	ORIGINAL BUDGET	TOTAL FUNDS ANTICIPATED	TOTAL FUNDS AVAILABLE	COMMITMENTS \$	%	EXPENDITURES \$	%	BILLED TO FUNDING SOURCE \$	%
FEDERAL - SECTION 5309 NEW STARTS	\$1,250.000	\$1,250.000	\$665.000	\$1,250.000	100%	\$620.255	50%	\$617.795	49%
FEDERAL CMAQ	\$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	\$749.306	\$749.306	\$749.306	100%	\$749.306	100%	\$749.306	100%
MEASURE R 35%	\$869.178	\$1,213.622	\$932.750	\$604.721	50%	\$515.921	43%	\$499.871	41%
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	\$50.898	\$50.898	\$50.898	100%	\$50.898	100%	\$50.898	100%
CITY OF LOS ANGELES	\$75.273	\$75.273	\$1.290	\$1.290	2%	\$1.290	2%	\$1.290	2%
<b>TOTAL</b>	<b>\$3,149.350</b>	<b>\$3,354.350</b>	<b>\$2,414.495</b>	<b>\$2,671.466</b>	<b>79.6%</b>	<b>\$1,952.921</b>	<b>58.2%</b>	<b>\$1,934.411</b>	<b>57.7%</b>

EXPENDITURES ARE CUMULATIVE THROUGH SEPTEMBER 30, 2020  
 ORIGINAL BUDGET BASED ON JULY 2014 BOARD APPROVED LOP BUDGET

\*OTHERS INCLUDE Prop A/C/TDA Admin (\$4.1M), General Fund (\$1.8M), and State Capital (\$45.0M)

## PROJECT ORGANIZATION AND STAFFING

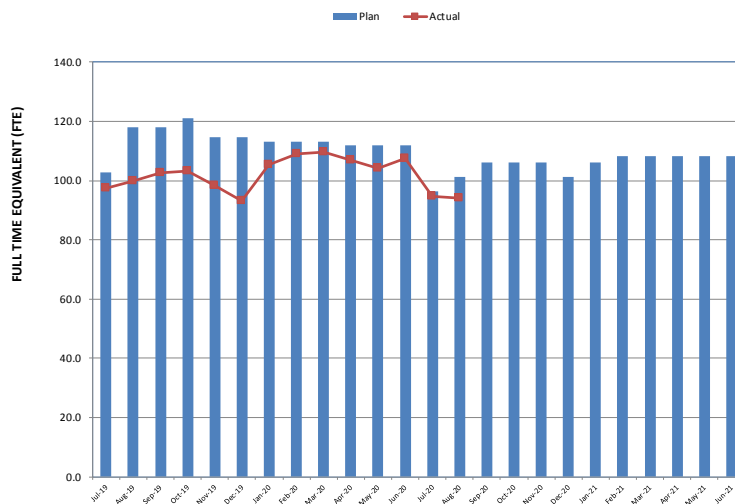
The design-build contract is being managed by a joint team of Metro and consultant personnel jointly located at the Integrated Project Management Office (IPMO).



The overall FY21 Total Staffing Plan averages 105.4 FTEs per month.

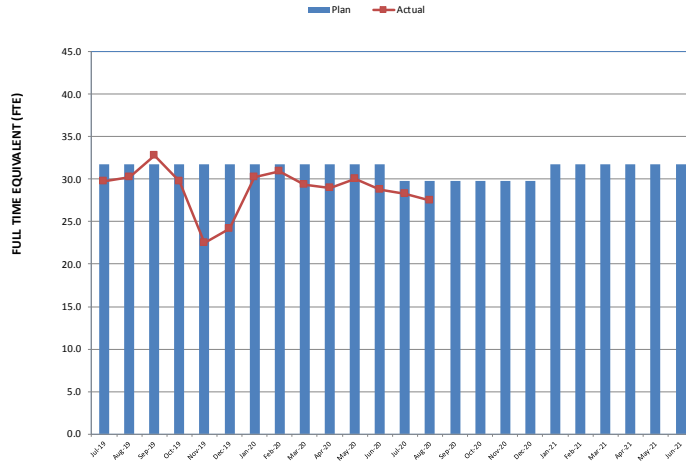
For August 2020, there were a total of 27.5 FTEs for MTA's Project Administration Staff and 66.4 FTEs for Consulting Staff. The total project staffing for August 2020 was 93.9\* FTEs.

### Total Project Staffing – Metro and Consultants

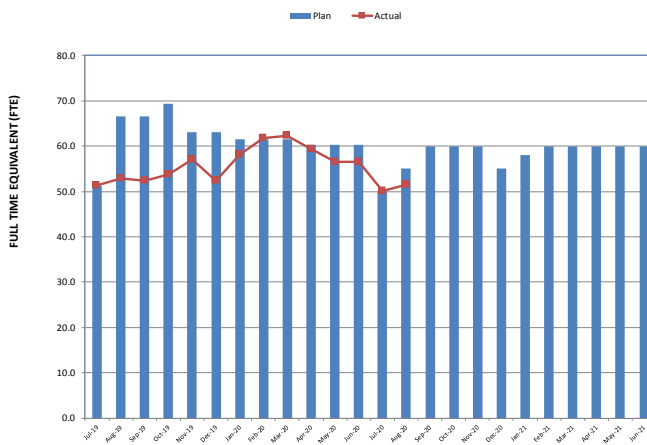


\*Actuals include 2.9 FTEs related to Project Management Support Services (PMSS).

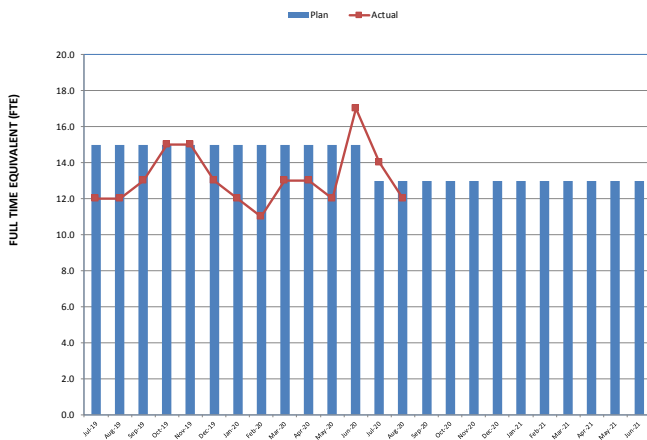
### Metro Staff



### CM Support Services Staff (Consultant)



### Engineering Services Staff (Consultant)



### Staffing by Group

The opposing graphs represent planned vs. actual staffing levels by group.

Metro staffing includes full time staff located in the IPMO as well as part-time support located at Gateway Headquarters.

Staffing plans are developed for each fiscal year based on project needs.

All above data through August 2020

## REAL ESTATE

<b>Purple Line Extension Section 1 - Real Estate Status Summary</b>								
Description	Number of Parcels	Certified	Appraisals Completed	Offers Made	Agreements/ Settlements Signed	Relocations		Parcels Available
						Required	Completed	
Full Takes	9	9	9	9	9	109	109	9
Part Takes	6	6	6	6	6	0	0	6
TCE	4	4	4	4	3	0	0	4
<b>Total Parcels</b>	<b>19</b>	<b>19</b>	<b>19</b>	<b>19</b>	<b>18</b>	<b>109</b>	<b>109</b>	<b>19</b>

Metro has possession of all the parcels by either acquisition, possession and use agreements or stipulations. The C1045 contractor has possession of all properties along the alignment needed to construct the Project.

There remains one parcel at the Wilshire/Fairfax Station location in the condemnation phase. *The final settlement agreement has been reached and is expected to be closed out before the end of 2020.*

## QUALITY ASSURANCE

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

- 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.
- Station quality progress:
  - *Wilshire/La Brea – engaged in oversight activities for construction of roof structure, plenum structure and HDPE.*
  - Wilshire/Fairfax – monitored entrance structure (SOE) excavation, lagging, structural steel shoring members and exterior/interior walls.
  - *Wilshire/La Cienega – engaged in oversight activities for construction of exterior walls (second lift), HDPE, and mechanical plumbing/piping.*
- Processed 42 surveillances, 21 Quality Action Requests (QARs), 28 Nonconformance Reports (NCRs) and one (1) Corrective Action Request (CAR).

### **C1078 – Division 20 MOW and NRV Building Location 64**

- Project is in final phase of completing punch list items.
- Processed two (2) surveillances, 11 QARs (all closed), 17 NCRs and one (1) CAR.



## ENVIRONMENTAL

- *The FTA accepted NEPA memo for the proposed Orange Avenue and Sycamore Drive closures for the Wilshire/La Brea Station appendage construction.*
- *Reviewed haul route updates as approved by local jurisdictions for Wilshire/La Brea, Wilshire/Fairfax, and Wilshire/La Cienega Stations construction yards.*
- *Reviewed and approved updates to Noise and Vibration Control Monitoring Plans covering activities for the remainder of 2020.*
- *Conducted field environmental monitoring and spot inspections for stormwater BMPs, dust, and cultural resources for C1045 and third party work activities.*

## CONSTRUCTION AND COMMUNITY RELATIONS

- Attended virtual Neighborhood Council meetings, monthly environmental mitigation meetings, held meetings online and made Project presentations to: Beverly Hills residents and business stakeholders, elected officials' deputies, construction community meetings and various stakeholders.
- Continued with the "Eat, Shop, Play Spotlight" (ESP) campaign to advertise and promote businesses that participate in ESP Wilshire and Beverly Hills, specific to eateries that remained open for pick-up and delivery during COVID-19 restrictions.
- Continued additional construction mitigations including: business signage, street signs and print ads at no cost to the businesses.
- *Corresponded with Los Angeles City Council district offices and City of Beverly Hills regarding construction effects on traffic and shared major stakeholder concerns.*
- Updated website, Facebook, Twitter as needed. Published monthly PLE (Purple Line Extension) newsletter to email list. Placed monthly ads in local papers.
- Tours were suspended due to COVID-19.
- Produced and distributed:
  - *Five (5) construction work notices for construction activities;*
  - The La Cienega Monthly Look Ahead;
  - Weekly look-ahead for Division 20;
  - Weekly construction look-ahead emails to construction stakeholders; and
  - Monthly look-ahead emails for the City of Beverly Hills.

## CREATIVE SERVICES

- Continued design development for Wilshire Customer Center artwork relocation to Wilshire/Western Station.
- Continued design development for concourse glass tile artwork design at Wilshire/La Cienega Station.
- Coordination underway with design-builder for fabrication procurement.

## SAFETY & SECURITY

- *There was one recordable injury in September 2020. An ironworker working at Wilshire/Fairfax Station fractured his wrist.*
- *There was one COVID-19 case in September 2020 at the Wilshire/La Cienega Station.*
- Metro Safety staff conducted daily safety inspections, attended weekly Tool Box, Progress, readiness review and other project meetings to evaluate contractor's safety program compliance with contract requirements.
- Metro Safety staff worked regularly with Program Management and Construction Relations staff to monitor issues related to public concerns regarding noise, traffic and public/construction interfaces as well as public interactions with the construction crews.
- Both Tunnel Boring Machines (TBM's) are mining in Reach 3 (Wilshire/Fairfax to Wilshire/La Cienega) and have encountered no methane alarms.
- *August 2020 Contractor Work Hours (Design & Construction): 104,329*
- *Contractor - Project to Date Work Hours (Design & Construction) (through 8/31/20): 3,941,094*
- *Total Project to Date Work Hours (Contractor & the IPO Staff) (through 8/31/20): 5,025,420*
- *Project to Date Recordable Injury Rate: 1.31 (33 Recordable Injuries) (each rate is per 200,000 work hours) (National Rate: 2.5)*
- *Project to Date Total Days Away (DART) Injury Rate: 0.119 (3 Days Away or Lost Time) (each rate is per 7 Days/Time Away from Work Injuries) (National Rate: 1.5)*

## APPENDIX 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

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
February 2017	Began deck beam and decking operations for Wilshire/Fairfax Station

March 2017	Began piling operations for Wilshire/La Cienega Station
June 2017	Decking operations for Wilshire/Fairfax Station are complete
September 2017	Began utility relocation work at the Wilshire/Western site
October 2017	Began street decking for Wilshire/La Cienega Station
November 2017	Began concreting activities for Wilshire/La Brea Station
December 2017	Structural steel erection commenced at the Division 20 Maintenance-of-Way and Non-Revenue Vehicle Building Location 64
January 2018	Decking operations for Wilshire/La Cienega Station are complete
February 2018	Began invert slab concrete placement at the Wilshire/La Brea Station
April 2018	Wilshire/Fairfax Station excavation cleared the Paleo Zone (Elevation 105')
June 2018	Concrete wall pours needed to support TBM assembly at Wilshire/La Brea Station have been completed
July 2018	Began delivery of TBM components to the Wilshire/La Brea Station site
October 2018	The Reach One (1) mining operation commenced with the launch of TBM #1 from Wilshire/La Brea Station.
November 2018	TBM #2 was launched from Wilshire/La Brea Station.
December 2018	The bottom of excavation was reached at the Wilshire/Western TBM Retrieval site.
January 2019	The temporary concrete slab at the Wilshire/Western TBM Retrieval site was placed.
February 2019	Reached the bottom of excavation at Wilshire/Fairfax Station.
March 2019	Completed mud mad placement at Wilshire/Fairfax Station.
April 2019	HDPE protection slab placement commenced at Wilshire/Fairfax Station.
May 2019	Substantial Completion for the C1078 Contract (Division 20 MOW/NRV Building Location 64) was achieved on May 1, 2019.
June 2019	Both TBM #1 (Soyeon) and TBM #2 (Elsie) completed the Reach One (1) tunnel alignment mining.

July 2019	Began transport of both TBMs (#1 Soyeon and #2 Elsie) from the Wilshire/Western Shaft to Wilshire/La Brea Station.
August 2019	Completed invert concrete placement at Wilshire/Fairfax Station.
September 2019	Bottom of excavation reached at Wilshire/La Cienega Station.
October 2019	TBM #2 (Elsie) commenced Reach #2 tunnel drive.
November 2019	Completed 1 <sup>st</sup> lift exterior wall concrete placement at Wilshire/Fairfax Station.
December 2019	Commenced station invert concrete placement at Wilshire/La Cienega Station.
January 2020	Commenced Reach 1 cross passage excavation.
February 2020	Completed Wilshire/La Cienega Station invert concrete placement.
March 2020	Commenced Wilshire/La Brea Station roof concrete placement.
April 2020	Arrival of first rail delivery to the Division 20 Rail Yard.
May 2020	TBM #1 (Soyeon) completed the Reach #2 tunnel drive. TBM #2 (Elsie) commenced the Reach #3 tunnel drive.
June 2020	Completed 1st lift wall concrete placement (GL 3-15) at Wilshire/La Cienega Station. Completed Reach Two (2) tunnel mining.
July 2020	TBM #1 (Soyeon) commenced the Reach #3 tunnel drive.
August 2020	Commenced concourse concrete placement at Wilshire/Fairfax Station.
September 2020	<i>The first roof placement (Block 7) at Wilshire/La Cienega Station was completed.</i>