

June 22, 2023

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SENIOR EXECUTIVE OFFICER, PROGRAM MANAGEMENT

(INTERIM)

**SUBJECT:** PURPLE (D LINE) EXTENSION PROJECT SECTION 1

MAY 2023 MONTHLY PROJECT STATUS REPORT

Enclosed herewith is the Monthly Project Status Report for the Purple (D Line) Extension Project Section 1. This report contains the Los Angeles County Metropolitan Transportation Authority's (LACMTA) representation of the Purple (D Line) Extension Project Section 1 status for the period ending June 2, 2023.

If you have any questions regarding this report or its supporting information, please contact Salvador Chavez, Deputy Executive Officer, Program Control at (323) 900-2188.

IC: ah Enclosure

# PURPLE (D LINE) EXTENSION PROJECT Section 1



# Purple (D Line) Extension Project Section 1

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).

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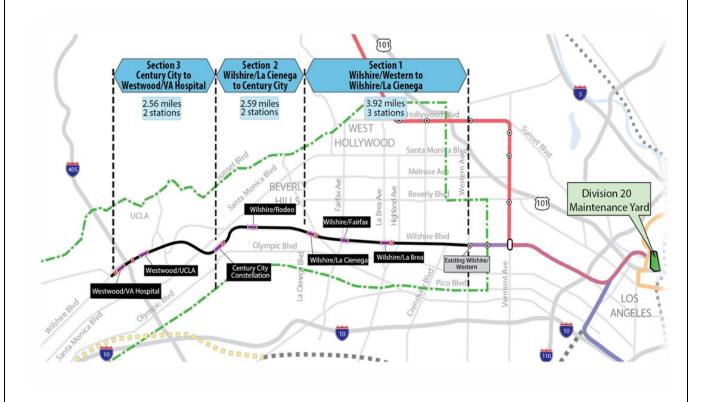
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#### **PROJECT OVERVIEW**

#### **Project Background**

Section 1 of the Purple (D 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 all three sections of the Project were environmentally cleared and adopted by LACMTA Board of Directors.

Section 1 will extend the existing Purple (D 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 inbetween 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 the 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 and La Cienega Boulevards. 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 C1034. 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 and 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.

#### <u>Contract C1056 – Wilshire/La Cienega Advanced Utility Relocations</u>

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 utilized 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 (D Line), testing and commissioning.

#### <u>Contract C1078 – Division 20 Maintenance-of-Way and Non-Revenue Vehicle Building</u> 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 is due to the future turn-back facility site in the yard. The contract substantial completion date was extended from May 1, 2019 to August 31, 2019.

#### Metro Furnished Equipment

Metro has procured a contract to provide 34 Heavy Rail Vehicles (HRV) necessary to operate the extension to the Purple (D 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 systems testing.

#### **Program Management**

The Purple (D Line) Extension Project Section 1 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 Project Staffing section of this report. The on-site program management team is also supported by Metro Headquarters' resources including but not limited to engineering, risk management, environmental, quality management, operations and creative services departments.

<u>Project Schedule and Budget</u>: Based on a review of the project schedule, Metro has adjusted the Revenue Service Date (RSD) from Fall of 2023 to Fall of 2024.

The Original Budget of \$3.1 billion reflects the Life of Project Budget approved by the Board on July 24, 2014 plus Finance Charges of \$0.4 billion. Based on a review of the project budget, the Current Budget and Current Forecast have been adjusted to \$3.5 billion. A detailed Life of Project Budget forecast is included under the Project Cost 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

<u>Construction and Community Relations</u>: 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's alignment.

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 May 2023, the Project achieved 85.4% completion based on earned value measurements for design and construction. The critical path of the Project remains the plenum and masonry installation at east end of Wilshire/La Cienega Station.

The target forecast substantial completion date for the Project has changed from October 9, 2024 to the first quarter of 2025. The Project team is working on incorporating the newly revised schedule into the monthly schedule update process. Both Metro and the C1045 Contractor are using the interim target dates from this revised schedule to manage the work.

The target Revenue Service Date (RSD) for the Project is now Spring 2025.

#### **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 to the C1045 Design/Build Contract during construction.

#### **Construction Status**

Reach 1 (Wilshire/Western to Wilshire/La Brea): electrical and systems installation work is ongoing.

Reach 2 (Wilshire/La Brea to Wilshire/Fairfax): systems installation moves forward.

Reach 3 and Tail Track (Wilshire/Fairfax to Wilshire/La Cienega): track installation continues. Cross-passage #24 (Reach 3) is being used for trackwork concrete access and will be completed once all trackwork concrete is placed.

Reach 4 tunnel: final liner construction at the TBM shield.

Wilshire/La Brea Station: bus lane, curb/gutter and sidewalk restoration as well as appendage work on the south side of Wilshire Blvd. continues. *Entrance structure, masonry work on the west side of the Station, crossover construction and MEP (Mechanical, Electrical, Plumbing) activities are all ongoing.* 

Wilshire/Fairfax Station: appendage work and civil restoration on the north side of the station continues. Entrance structure construction and architectural and MEP activities at the platform as well as concourse levels continue. Escalator and elevator installation move forward.

Wilshire/La Cienega Station: above roof backfill operation continues. Station entrance structure and platform construction are ongoing. Masonry work continue at east and west ends of the Station. Architectural and MEP work as well as southside appendage construction are ongoing. Weekend decking removal and street restoration activities continue.

Substantial completion for the Division 20 Maintenance-of-Way and Non-Revenue Vehicle Building Location 64 Contract (C1078) was extended to August 31, 2019. The final retention amount has been paid. Contract closeout efforts continue.

The C1045 Design/Build Contractor has taken possession of the rail site at the Division 20 Rail Yard. The rail welding subcontractor commenced production welding on October 23, 2020. The welding of running rail at the Division 20 Rail Yard was completed on December 9, 2020. Rail deliveries from the rail yard to Wilshire/La Brea Station commenced on March 29, 2021. Rail delivery for the entire Reach 1 (Wilshire/Western to Wilshire/La Brea) tunnel was completed in December 2021. All running rail stored in the yard was moved to the project site by the end of July 2022. The WPLE Section 1 storage area in the Division 20 Yard has been turned over to the Portal Widening Project. A new area near 6th Street bridge is being used for project material delivery.

#### **Cost and Schedule Summary**

Metro has received May 2023's schedule update for the C1045 Design/Build Contract, which reports the substantial completion date 497 calendar days after the February 1, 2024 contractual date.

The target substantial completion date has changed from October 9, 2024 to the first quarter of 2025. The Project team is working on incorporating the newly revised schedule into the monthly schedule update process. Both Metro and the C1045 contractor are using the interim target dates from this revised schedule to manage the work.

The Project's current target RSD has changed from Fall 2024 to Spring 2025.

The critical path of the Project for the current schedule update remains the plenum and masonry installation at the east end of Wilshire/La Cienega Station followed by station finishes, systems installation, testing and pre-revenue operations. A summary graphic of the critical path is found on Page 14.

#### C1045 Design-Build Contract Schedule Metrics

	Original Contract Date/Duration	Time Extension (CD)	Current Contract Schedule	Forecast (Metro PMS)	Variance CD (Trending)
NTP	01/12/2015				
Substantial Completion	2/01/24	231	06/12/25	2024	-497 days

The Current Budget for the Project is \$3.5 billion. The Current Cost Forecast for the Project is \$3.7 billion. Detailed cost and budget information is provided on Page 17.

There are currently two (2) open claims that are being evaluated:

- Claim 002 Reach 2 Gas Differing Site Condition
- Claim 003 Tunnel Lighting

#### **Key Management Concerns**

<u>Item 1</u>: The critical path of the Project remains the plenum and masonry installation at east end of Wilshire/La Cienega Station. Currently, the C1045 forecast substantial completion date is trending over seven (7) months behind the target schedule.

Status/Action: The target forecast substantial completion date for the Project has changed from October 9, 2024 to the first quarter of 2025. The Project team is working on incorporating the newly revised schedule into the monthly schedule update process. Both Metro and the C1045 contractor are using the interim target dates from this revised schedule to manage the work. The Project's current target RSD has changed from Fall 2024 to Spring 2025.

# **Project Construction Photos**



Room Slab Placement at Western Interface Chamber



Track Crossover Diamond Placement at Wilshire/La Brea Station



Elevator Frame Installation at Wilshire/Fairfax Station



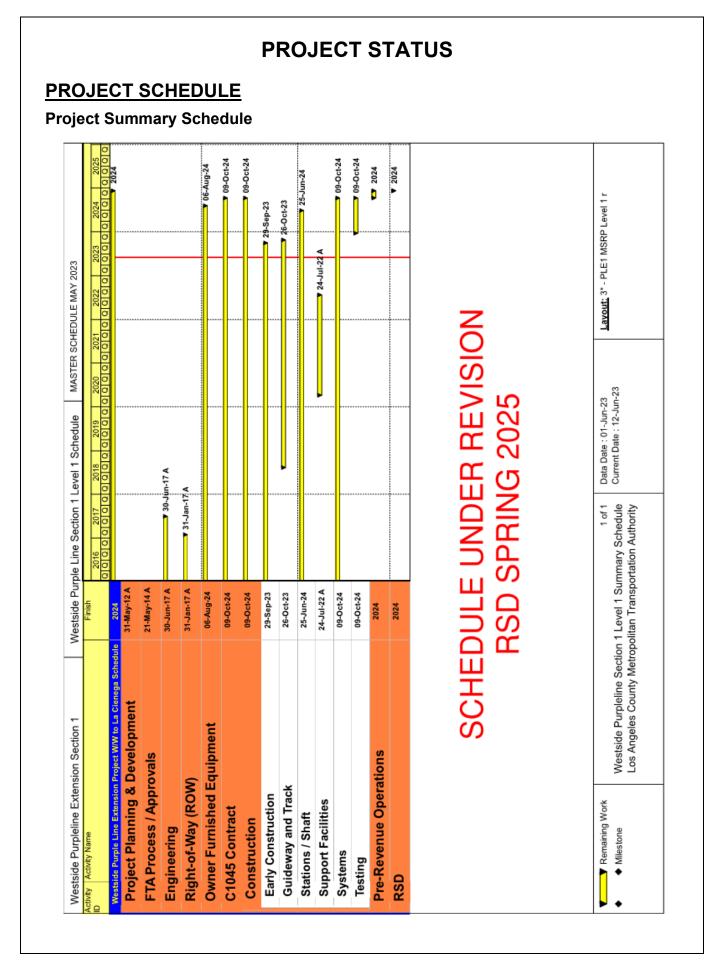
Weekend Decking Removal at Wilshire/La Cienega Station



Reach 3 BL Tunnel Track Welding



Reach 4 BL Tunnel Final Liner at TBM Shield

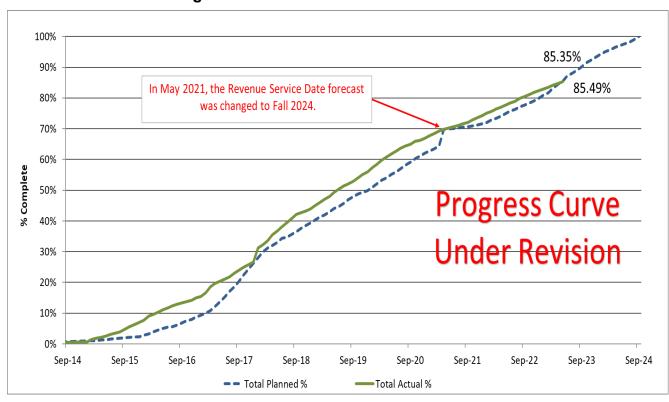


**Progress Summary** 

1 Togreeo Gammary	Status	Change from Last Period	Comment
Forecast Revenue Service	Spring 2025	None	New Target Forecast RSD
TIFIA Revenue Service	10/31/2024	None	
FFGA Revenue Service	10/31/2024	None	
Final Design Progress:			
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	84.4%	0.6%	
Contract C1055	100.0%	0.0%	Completed on Schedule
Contract C1056	100.0%	0.0%	Completed on Schedule
Contract C1078	100.0%	0.0%	Completed

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

#### Planned vs. Actual Progress



	Milestone Date	Ma y-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23
Nilshire/Fairfax Station: Commenced Installation of Smoke Enclosure Steel	05/10/23 A						
Wilshire/La Brea Station: Installed Traction Power AC Equipment (Room #206)	05/15/23 A						
Wilshire/Fairfax Station: Completed Appendage A1B (Emerg Exit) Excavation	05/26/23 A						
Wilshire/La Brea Station: Complete Installation of Smoke Enclosure Steel	06/02/23						
Delivery of Contact Rail to the Project Site	06/23/23						
Nilshire/La Cienega Station: Complete Platform Level Walls	06/29/23						
Nilshire/La Brea Station: Complete Installation of Metal Ceiling Panels	07/25/23						
Wilshire/Fairfax Station: Complete Installation of Metal Ceiling Panels	07/27/23						
Nilshire/La Cienega Station: Complete Installation of Metal Ceiling Panels	08/03/23						
Nilshire/La Brea Station: Complete Main Entrance Structure (Roof)	08/28/23						
Nilshire/Fairfax Station: Complete Entrance Plaza Structure	09/19/23						
Nilshire/Fairfax Station: Complete Elevator/Escalator Installation (Ready for Testing)	10/03/23						
MTA Staff  MTA Board Action  Other Agencies  Contractors	Admir Design	(Federal Ti histration) Consultar		V	Utility Cor D/B Contr		
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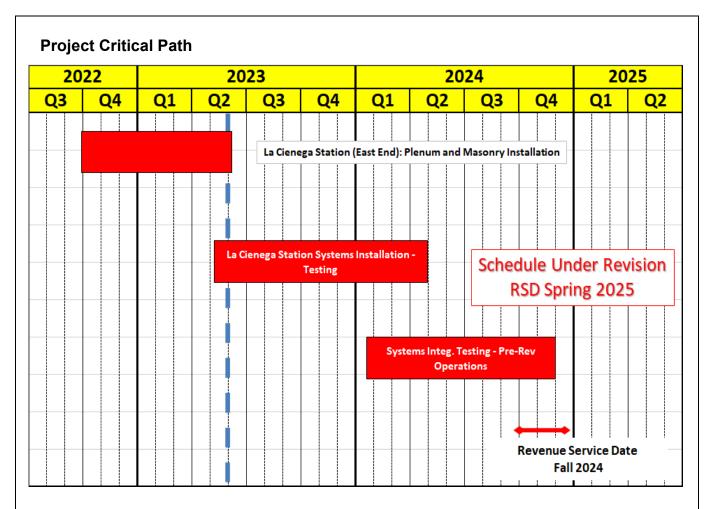
# **Major Equipment Delivery**

	Submittal	Procurement	Delivery	Installation
C1045 DESIGN/BUILD*				
Tunnel Boring Machine	1/29/16A	8/14/17A	12/15/17A	7/13/18A
Emergency Ventilation Fans	11/30/18A	4/1/19A	12/1/21A	12/21/21A
Station Elevators	4/27/18A	4/27/18A	04/10/23A	6/7/23
Station Escalators	4/27/18A	4/27/18A	7/21/21A	2/6/23A
Track - Running Rail	7/9/19A	8/9/19A	4/9/20A	10/18/21A
Traction Power Equipment	5/29/20A	11/5/21A	1/8/22A	4/28/23A
Automatic Train Control	4/1/16A	7/1/16A	12/20/16A	1/13/23A
SCADA RTU System	2/2/17A	1/16/18A	5/18/18A	3/11/24
Radio System	2/2/17A	2/3/20A	8/16/23	8/17/23
Heavy Rail Vehicles***	7/16/15A	5/1/19A	12/22/23	Fall 2024
Universal Fare System**	2/15/21A	9/30/21A	6/30/23	3/5/24

<sup>\*</sup> Dates derived from STS's May 2023 Schedule.

<sup>\*\*</sup> Forecast release date by STS to UFS contractor access at stations.

<sup>\*\*\*</sup> Metro supplied equipment



The critical path for this period using the existing schedule update remains unchanged and progresses through masonry installation at east end of Wilshire/La Cienega Station followed by systems installation.

The target substantial completion date has changed from October 9, 2024 to the first quarter of 2025. The Project team is working on incorporating the newly revised schedule into the monthly schedule update process. Both Metro and the C1045 Contractor are using the interim target dates from this revised schedule to manage the work.

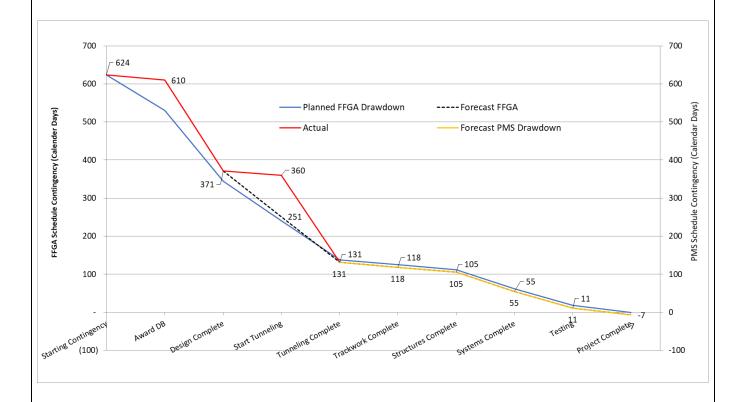
The Project's current target RSD has changed from Fall 2024 to Spring 2025.

#### **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 newly adjusted Project Master Schedule (PMS) forecast RSD of Fall 2024.

The model has been updated to reflect both the completion of TBM tunnel mining in May 2021 and the adjusted Metro forecast RSD from Fall 2023 to Fall 2024. At the start of TBM mining in October 2018, there was a noticeable buffer of available float between the PMS model and the FFGA model. This float buffer has been eroded due to the impacts associated with the Reach 3 anomaly, which has hindered TBM tunnel mining progress resulting in a later than planned actual completion of this milestone.

The next planned update for this model is after completion of trackwork installation. The forecast completion timeframe for this milestone is the second quarter of 2023.



#### **Risk Management Narrative**

#### **Summary of Risks**

One new potential risk was identified during the quarterly Risk Register meeting, and one risk was closed this period. A total of thirty-one (31) risks remains to be managed in the next quarter.

Of the thirty-one (31) risks, two (2) are scored as high, six (6) as medium and twenty-one (21) as low. Two (2) of the scores for the identified potential risks are under review.

The next Purple (D Line) Extension Project Section 1 Risk Register quarterly update is scheduled for July 2023.

#### Top Risks

The table below shows the top Project risks:

Risk ID	Risk Description	Risk Score	Action Items
678.0	COVID-19 Pandemic Impact.	15	Evaluate state and local government guidelines.     Put contingency plans in place.
676.0	Subcontractor ability to get the required resources to perform work. Resource (Labor) shortage (Direct and Indirect).	10	Actively manage schedule and resource needs.
682.0	Procurement / Installation of Special Trackwork (NEW)	6	Delivery of La Cienega Station crossover track has moved from May-23 to Nov-23.     Schedule work-around includes the installation of temporary track (until crossover arrives) so follow-on work can move forward.
628.0	Systems integration with existing Purple Line at Wilshire/Western Station.	6	Wilshire/Western cutover completed on April 19, 2023.     Coordination of schedule with Metro Operations is ongoing.     Systems Integration Plan to be submitted in support of a 2024 Systems Integration Testing start date.
680.0	Supply chain (material) delivery	6	Actively manage schedule for material need/delivery dates.

#### **PROJECT COST**

#### Project Cost Analysis – 865518

DOLLARS IN THOUSANDS

SCC DESCRIPTION		ORIGINAL BUDGET	CURREN	T BUDGET	СОММІ	TMENTS	EXPENI	DITURES	CURRENT	FORECAST	CURRENT BUDGET / FORECAST
OODL		DODGET	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	VARIANCE
10	GUIDEWAY & TRACK ELEMENTS	388,294	-	494,309	-	468,044	4,084	439,005	-	623,394	129,085
20	STATIONS, STOPS, TERMINALS, INTERMODAL	440,621	-	606,997	-	574,093	5,457	480,615	-	629,924	22,927
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	43,323	-	45,723	-	45,702	-	45,702	-	45,723	-
40	SITEWORK & SPECIAL CONDITIONS	751,566	-	824,103	1,295	826,696	4,873	747,581	-	913,741	89,638
50	SYSTEMS	113,574	-	122,195	90	110,620	2,399	63,069	-	138,982	16,787
	CONSTRUCTION SUBTOTAL (10-50)	1,737,378	-	2,093,328	1,385	2,025,155	16,814	1,775,972	-	2,351,765	258,437
60	ROW, LAND, EXISTING IMPROVEMENTS	175,634	-	202,980	-	202,980	254	188,594	-	202,980	-
70	VEHICLES	160,196	-	108,302	-	99,230	428	30,885	-	108,302	-
80	PROFESSIONAL SERVICES	412,710	-	616,500	72	541,829	2,813	501,141	-	613,329	(3,171)
	SUBTOTAL (10-80)	2,485,918	-	3,021,110	1,457	2,869,194	20,308	2,496,593	•	3,276,376	255,266
90	UNALLOCATED CONTINGENCY	248,592	-	68,400	1	-	-	1	-	38,134	(30,266)
100	FINANCE CHARGES	375,470	-	375,470	22,113	107,679	22,113	107,679	-	375,470	-
	TOTAL PROJECTS 465518 & 865518 (10-100)	3,109,980	-	3,464,980	23,570	2,976,873	42,421	2,604,271	-	3,689,980	225,000
	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	•	3,504,350	23,570	3,016,242	42,421	2,643,628		3,729,350	225,000

NOTE: FINANCE CHARGES ARE MANAGED UNDER DEBT SERVICE - MEASURE R PROJECT NO. 660301

#### **Original Budget**

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

#### **Current Budget**

The Current Budget remains the same this period at \$3.5 billion.

#### **Current Forecast**

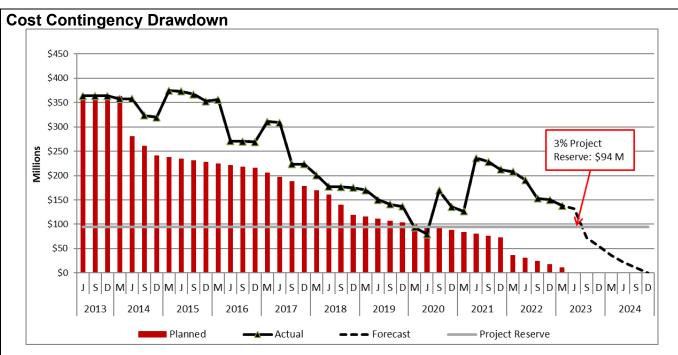
The Current Forecast remains the same this period at \$3.7 billion.

#### Commitments

Commitments increased by \$23.6 million this period primarily due to Finance Charges, work orders issued to third party private utility companies, and executed Change Orders for the C1045 Design/Build Contract. The \$3.0 billion in Commitments to Date represents 86.1% of the Current Budget.

#### **Expenditures**

Expenditures increased by \$42.4 million primarily due to costs associated with Finance Charges, the C1045 Design/Build Contract, third party private utility companies, Real Estate Temporary Construction Easement (TCE) fee, Heavy Rail Vehicle Procurement, City of Beverly Hills Memorandum of Agreement, Engineering Management Support Services, Construction Management Support Services and Metro Project Administration. The \$2.6 billion in Expenditures to Date represent 75.4% of the Current Budget.



#### **Cost Contingency Drawdown Analysis**

The Project's Original Budget of \$3.1 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 February 2016, August 2020 and May 2021 the Board approved to amend the Life-of-Project (LOP) Budget to address cost contingency drawdowns and fund ongoing expenses. The LOP Budget was increased by \$5.0 million in 2016, \$200.0 million in 2020, and \$150.0 million in 2021. The 3% project reserve is currently \$93.9 million.

The Project Cost Contingency Drawdown curve has been adjusted to reflect the Fall 2024 Revenue Service Date forecast.

The Allocated Contingency decreased this period by \$0.4 million due to executed Change Orders for the C1045 Design/Build Contract.

PROJECT COST CONTINGENCY DOLLARS IN THOUSANDS								
Original Contingency (Budget)  Previous Period  Current Period  To-Date Contingency (Forecast								
Unallocated Contingency	248,592	(180,192)	-	(180,192)	68,400			
Allocated Contingency	71,963	(7,943)	(426)	(8,369)	63,594			
Total Contingency	320,555	(188,135)	(426)	(188,561)	131,994			

10,309

17,138

52,830

32.4%

181,007

215,559

1,736,597

12.4%

1,983

(1,097)

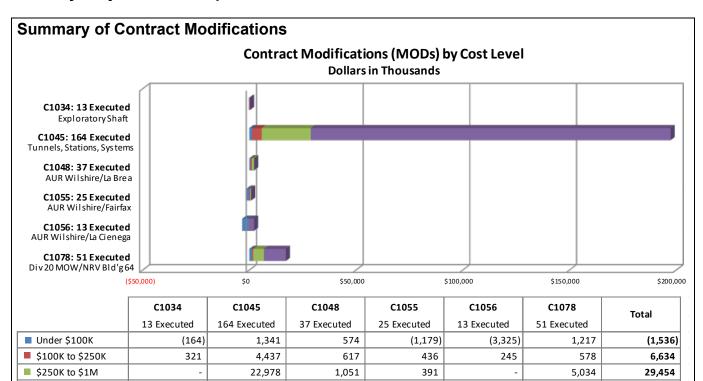
20,250

-5.4%

(352)

-2.4%

14,430



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

157

6,487

2.4%

168,715

197,471

1,636,419

12.1%

Over \$1M

**Total Contract MODs** 

% of Contract MODs

**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.

2,242

6,181

36.3%

One hundred and sixty-four Contract MODs with a total value of \$197.5 million have been executed since the award of Contract C1045 – Tunnels, Stations, Trackwork, Systems and Systems Integration Testing by Skanska - Traylor - Shea, a Joint Venture.

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

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

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.

Fifty-one Contract MODs with a total value of \$17.1 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 May 2023:

DBE Goal – Design The percentage of funds apportioned to Design Contracts	20.25%
Current DBE Commitment Design Total DBE Committed Dollars divided by Total Contract Value for Design	
Current DBE Participation Total amount paid to date to DBEs divided by the amount paid to date to Prime	\$15.3 M 22.21%

Seventeen (17) Design DBE sub-consultants have been identified to date.

DBE Goal – Construction The percentage of funds apportioned to Construction Contracts	17.00%
Current DBE Commitment Construction Actual commitment as Construction work is awarded	\$279.6 M 15.58%
Current DBE Participation  Total amount paid to date to DBEs divided by the amount paid to date to Prime	\$255.8 M 16.79%

One hundred seventy-one (171) Construction DBE subcontractors have been identified to date.

# PROJECT LABOR AGREEMENTS (PLA)

## As of April 2023:

Targeted Worker Goal Construction work to be performed by residents from Economically Disadvantaged Areas in the United States	40.00%
Targeted Worker Current Attainment	62.81%
Apprentice Worker Goal	00.000/
Construction work to be performed by Apprentices	20.00%
Apprentice Worker Current Attainment	20.00%
Disadvantaged Worker Goal	
Construction work to be performed by disadvantaged workers	10.00%
Disadvantaged Worker Current Attainment	12.32%

## FINANCIAL/GRANT

# Status of Funds by Source DOLLARS IN MILLIONS

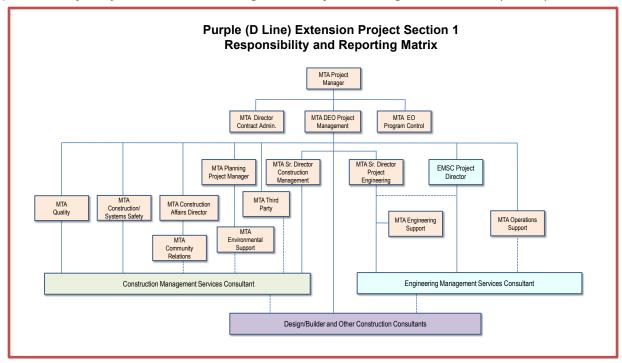
SOURCE	(A) ORIGINAL BUDGET	(B) TOTAL FUNDS	(C) TOTAL FUNDS	(D) COMMI	(D/B) IMENTS	(E) EXPE	(E/B) NDITURES	(F) BILLED TO SOUR	
		ANTICIPATED	AVAILABLE	\$	%	\$	%	\$	%
FEDERAL - SECTION 5309 NEW STARTS	\$1,250.000	\$1,250.000	\$936.984	\$1,152.119	92%	\$910.265	73%	\$910.265	73%
FEDERAL - SECTION 5309 NEW STARTS (ARPA-CIG**)	\$0.000	\$66.429	\$66.429	\$66.429	100%	\$66.429	100%	\$66.429	100%
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	\$1,321.938	\$1,321.938	\$975.694	74%	\$844.934	64%	\$731.502	55%
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	\$26.153	\$26.153	\$26.153	100%	\$26.153	100%	\$26.153	100%
CITY OF LOS ANGELES	\$75.273	\$75.273	\$31.290	\$31.290	42%	\$31.290	42%	\$31.290	42%
TOTAL	\$3,149.350	\$3,504.350	\$3,147.351	\$3,016.242	86.1%	\$2,643.628	75.4%	\$2,530.196	72.2%

EXPENDITURES ARE CUMULATIVE THROUGH MAY 31, 2023 ORIGINAL BUDGET BASED ON JULY 2014 BOARD APPROVED LOP BUDGET

<sup>\*</sup>OTHERS INCLUDE Prop A/C/TDA Admin (\$4.1M), General Fund (\$1.8M), and State Capital (\$20.253M)
\*\*AMERICAN RESCUE PLAN ACT - CAPITAL INVESTMENTS PROGRAM (ARPA-CIG)

#### PROJECT ORGANIZATION AND STAFFING

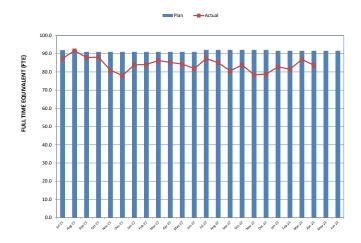
The Design/Build Contract is being managed by a joint team of Metro and consultant personnel jointly located at the Integrated Project Management Office (IPMO).



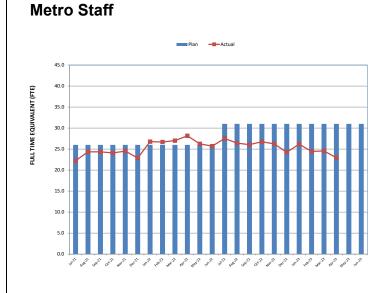
The overall FY23 Total Staffing Plan averages 91.9 FTEs per month.

For April 2023 there were a total of 22.9 FTEs for MTA's Project Administration Staff and 60.7 FTEs for Consulting Staff. The total Project staffing for April 2023 was 83.6\* FTEs.

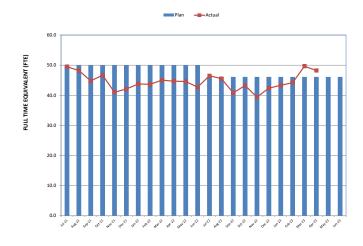
#### **Total Project Staffing – Metro and Consultants**



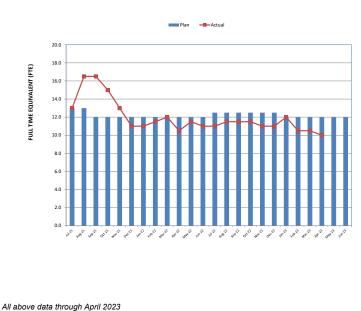
<sup>\*</sup>Actuals include 2.5 FTEs related to Project Management Support Services (PMSS).



#### **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.

# **REAL ESTATE**

Purple Line Extension Section 1 - Real Estate Status Summary					Summary	,		
Di-4:	Number of Parcels	Certified	Appraisals Completed	Offers Made	Agreements/ Settlements Signed	Reloc	Parcels	
Description						Required	Completed	Available
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
Total Parcels	19	19	19	19	18	109	109	19

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.

One parcel at the Wilshire/Fairfax Station location remains in the condemnation phase. The final settlement agreement is being closed out, and the closeout date has not been established. *Metro is in the process of extending the lease agreements for the Temporary Construction Easements (TCEs)*.

#### **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 predominantly 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 entrance structures, crossover structural members and platform slab member.
  - Wilshire/Fairfax engaged in oversight activities for entrance structure/ancillary level, maintenance walkways and street restoration backfill.
  - Wilshire/La Cienega engaged in oversight activities for construction of appendage structures and backfill activities.
- Processed 46 surveillances, 23 Quality Action Requests (QARs), 32 Nonconformance Reports (NCRs) and one (1) Corrective Action Request (CAR).

#### **ENVIRONMENTAL**

- Performed advanced nest survey for removal of ash tree at 6133 Wilshire in accordance with sidewalk replacement plans. A root pruning permit was obtained from the City of Los Angeles as part of the same effort.
- Monitored performance of work during Wilshire/La Cienega Station decking removal for vibration near historical structures and during compaction.
- Released final 40<sup>th</sup> Quarter MMRP report for transmittal to the FTA.
- Coordinated for manifesting and disposal of petroleum contaminated water from Wilshire/Fairfax Station sump collection as non-hazardous waste.

#### CONSTRUCTION AND COMMUNITY RELATIONS

- Attended monthly/weekly meetings with City of Los Angeles Department of
  Transportation, virtual Neighborhood Council meetings, monthly environmental
  mitigation meetings and daily/weekly internal construction update meetings for work in
  the cities of Los Angeles and Beverly Hills as well as held meetings online and
  conducted monthly project update presentations to Beverly Hills residents and business
  stakeholders, elected officials' deputies, various stakeholders along the alignment and
  at construction community meetings.
- Corresponded with and presented to Los Angeles City Council district offices, the Board
  of Public Works, Greater Miracle Mile and Beverly Hills Chambers of Commerce, and
  City of Beverly Hills staff regarding construction effects on traffic and shared major
  stakeholder concerns.
- 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 or other service-oriented businesses that remain open or have reopened for onsite pickup, dining-in and delivery.
- Continued additional construction mitigations including business signage, street signs and print ads at no cost to the businesses. Referred businesses to Metro's Business Interruption Fund (BIF) program.
- Updated website, Facebook, and Twitter regularly. Published monthly Purple Line Extension (PLE) newsletter to email list. Placed monthly ads in local papers.
- Conducted extensive one-on-one outreach to Beverly Hills business stakeholders and additional outreach to residents in advance of the Wilshire/La Cienega Station weekend closures of Wilshire Blvd. for decking removal activities.
- Produced and distributed seventy (70) construction work notices for construction activities; the La Cienega Monthly Look Ahead; weekly look-ahead for Division 20; weekly construction look-ahead emails to community stakeholders; and monthly look-ahead emails as well as door-to-door distributions for the City of Beverly Hills.

#### **CREATIVE SERVICES**

- Continued coordination with Contractor on design development for artwork lighting.
- Managed fabrication sample reviews with artist in coordination with the Contractor.
- Reviewed and responded to Contractor submittals for art fabrication.
- Coordinated overall station signage for continuity of customer experience between sections.

#### **SAFETY & SECURITY**

- There were no recordable injury, lost time or COVID cases in May 2023.
- Metro Safety staff conducted daily safety inspections, attended weekly Toolbox,
   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.
- Metro and STS have extra safety staff assigned to monitor safety performance and program changes instituted after the March 23, 2022 fatality.
- April 2023 Contractor Work Hours (Design & Construction): 130,423
- Total Project to Date Work Hours (through April) 8,515,618
- Project to Date Recordable Injury Rate: 0.96 (41 Recordable Injuries) (each rate is per 200,000 work hours) (National Rate: 2.4)
- Project to Date Total Days Away (DART) Injury Rate: 0.07 (3 cases Days Away or Lost Time cases) (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	Completed decking operations for Wilshire/Fairfax Station.
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	Completed decking operations for Wilshire/La Cienega Station.
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	Completed concrete wall pours needed to support TBM assembly at Wilshire/La Brea Station.
July 2018	Began delivery of TBM components to the Wilshire/La Brea Station site.
October 2018	Commenced Reach One's (1) mining operation with the launch of TBM #1 from Wilshire/La Brea Station.
November 2018	Launched TBM #2 from Wilshire/La Brea Station.
December 2018	Reached the bottom of excavation at the Wilshire/Western TBM retrieval site.
January 2019	Placed the temporary concrete slab at the Wilshire/Western TBM retrieval site.
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	Achieved substantial completion for the C1078 Contract (Division 20 MOW/NRV Building Location 64) on May 1, 2019.
June 2019	Both TBM #1 (Soyeon) and TBM #2 (Elsie) completed Reach One (1) tunnel alignment mining.
i e	

May 2023

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	Reached bottom of excavation 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 Reach #2 tunnel drive. TBM #2 (Elsie) commenced 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 Reach #3 tunnel drive.
August 2020	Commenced concourse concrete placement at Wilshire/Fairfax Station.
September 2020	Completed first roof placement (Block 7) at Wilshire/La Cienega Station.
October 2020	Commenced welding running rail at the Division 20 Rail Yard.
November 2020	Placed protection slab at the Wilshire/La Cienega Station entrance.
December 2020	Completed welding of running rail at the Division 20 Rail Yard.
January 2021	The Purple TBM (Elsie) restarted Reach 3 tunnel drive and has reached the Wilshire/San Vicente anomaly site.
February 2021	The Purple TBM (Elsie) completed Reach 3 tunnel drive.

February 2021	Started Reach 1 tunnel invert concrete placement.
March 2021	The Red TBM (Soyeon) completed Reach 3 tunnel drive.
April 2021	The Purple TBM (Elsie) completed Tail Track tunnel drive.
May 2021	Completed TBM tunnel mining activities for the Project.
June 2021	Completed Reach 1 cross passage structures.
July 2021	Commenced TBM Gantry removal from Wilshire/La Cienega Station.
August 2021	Commenced Reach 2 cross passage excavation.
September 2021	Placed all concrete roof sections (11 out of 16) for this phase of construction at Wilshire/Fairfax Station.
October 2021	Commenced Reach 1 trackwork installation activities.
November 2021	Commenced cross passage 19 (Reach 2) excavation.
December 2021	Completed concourse concrete slab placement at the east end of Wilshire/Fairfax Station.
January 2022	Completed Reach 1 south tunnel walkway concrete placement.
February 2022	Completed concrete concourse deck placement at the west end of Wilshire/Fairfax Station.
March 2022	Completed Reach 2 cross passage excavation.
April 2022	Commenced the weekend deck beam removal/station backfill operation on Wilshire Boulevard.
May 2022	Completed concrete concourse deck placement at the west end of Wilshire/La Brea Station.
June 2022	Completed concrete concourse deck placement at the west end of Wilshire/La Cienega Station.
July 2022	Completed all arched concrete roof placements at Wilshire/Fairfax Station.
August 2022	Commenced remaining roof concrete placements at the west end of Wilshire/La Brea Station.
September 2022	Commenced remaining roof concrete placements at the west end of Wilshire/La Cienega Station.
October 2022	Commenced Reach 2 trackwork installation activities.

November 2022	Completed concrete roof placements at the Gale shaft section of Wilshire/La Cienega Station (Blocks 8 & 9)
December 2022	Completed all arched roof concrete placements at Wilshire/La Brea and Wilshire/La Cienega Stations.
January 2023	Completed first concrete placement of platform level walls at Wilshire/La Cienega Station.
February 2023	Completed all tunnel invert and walkway concrete placements for the entire Project.
March 2023	Completed concrete placement of Wilshire/Fairfax Station platform.
April 2023	Completed concrete placement of Wilshire/La Brea Station platform.
May 2023	Installed Traction Power AC Equipment at Wilshire/La Brea Station.