



Metro

May 19, 2023

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SR. EXECUTIVE OFFICER (INTERIM)

SUBJECT: PURPLE (D LINE) EXTENSION TRANSIT PROJECT SECTION 3
April 2023 MONTHLY PROJECT STATUS REPORT

Enclosed herewith is the Monthly Project Status Report for the Purple (D Line) Extension Transit Project Section 3. This report contains the Los Angeles County Metropolitan Transportation Authority's (LACMTA) representation of the Purple (D Line) Extension Transit Project Section 3 status for the period ending April 28, 2023.

If you have any questions regarding this report or its supporting information, please contact Marvin Li, Deputy Executive Officer, Program Control at (424) 551-4523.

KO: mym
Enclosure

PURPLE (D LINE) EXTENSION PROJECT Section 3



Metro[®]

Purple (D Line) Extension Transit Project Section 3

MONTHLY PROJECT STATUS REPORT

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

April 2023

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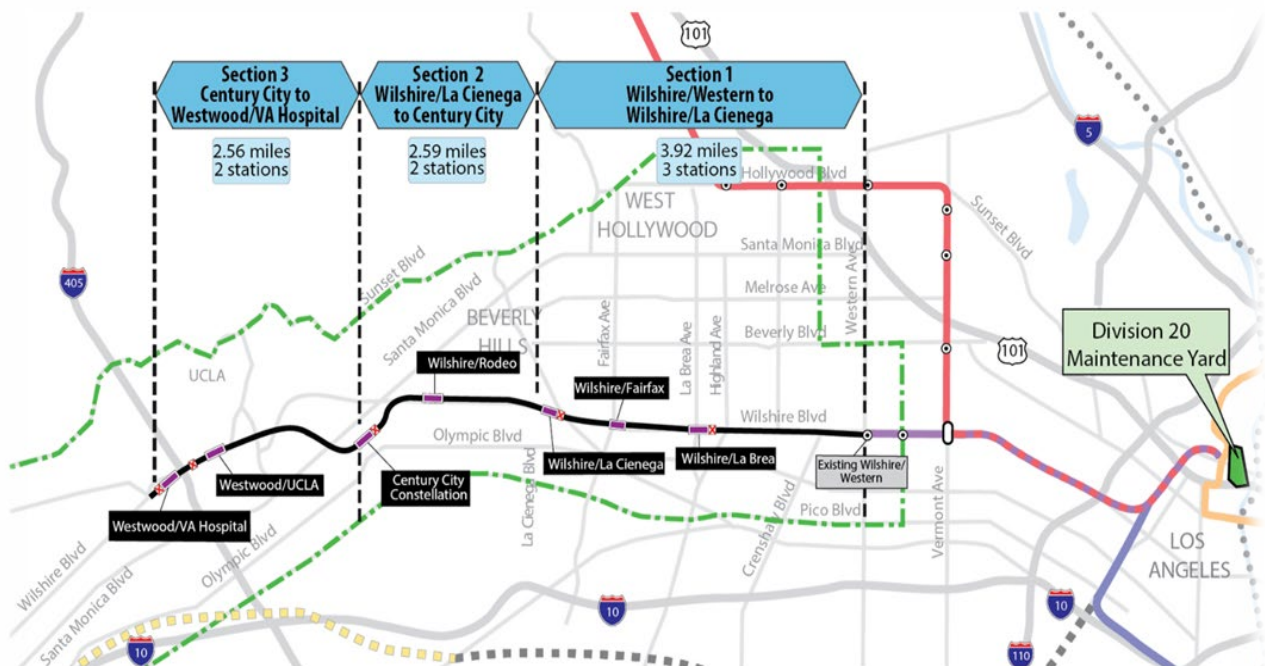
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PROJECT OVERVIEW

Project Background

The Purple (D Line) Extension Transit Project Section 3 (Project) is the third of three sections to be designed and constructed as part of the Los Angeles County Metropolitan Transportation Authority's (Metro) Measure R and Measure M Programs. The Measure R and Measure M Programs were approved by Los Angeles County voters in November 2008 and in November 2016, respectively, and provide in total a one-cent sales tax to finance new transportation projects. In April 2012, the three sections of the Project were environmentally cleared and adopted by Metro Board of Directors.

Section 3 will extend to Westwood from the future Century City Constellation Station that is part of the Westside Purple Line Extension Section 2 Project and currently under construction. The Project is located entirely underground, primarily following Wilshire Boulevard, and includes the design and construction of approximately 2.56 miles of double-track heavy rail, two new stations as well as the purchase of 16 heavy rail vehicles. The Westwood/UCLA Station is within the jurisdiction of the City of Los Angeles, and the Westwood/Veterans Administration (VA) Hospital Station is within the jurisdiction of the unincorporated area of Los Angeles County. The Project also includes train controls, signals, traffic controls, communications, traction power supply and distribution, fare collection systems and equipment, acquisition of right-of-way, and utility relocations.



The Westwood/UCLA Station box will be under Wilshire Boulevard beginning west of Westwood Boulevard and extending to the east of Veteran Avenue. The station will have three entrances, two full entrances on the north side of Wilshire Boulevard and one-half entrance on the south side of Wilshire Boulevard. The two full entrances will be located at Wilshire Boulevard and Gayley Avenue, and at Wilshire and Westwood Boulevards. The half entrance will be located at Wilshire and Westwood Boulevards.

The Westwood/VA Hospital Station box will be under the VA south campus, beginning west of the I-405 Freeway and extending west of Bonsall Avenue. The station will be equipped with double crossovers, one at each end of the station. The station entrance will be south of Wilshire Boulevard and east of Bonsall Avenue.

Major Procurements

Contract C1151 – Tunnels: The procurement of this design/build contract utilized a competitive negotiated procurement process to select a contractor that was determined to have met all the requirements set forth in the Request for Proposals (RFP) with a technically acceptable, “Lowest Evaluated Price” selection process. In June 2018, the Board authorized to award the C1151 Tunnels contract, subject to the FTA approval of the Letter of No Prejudice (LONP). The contract was awarded to Frontier-Kemper/Tutor Perini, (FKTP-JV) on November 30, 2018, after receiving the LONP from the FTA. Notice to Proceed (NTP) was issued on January 15, 2019.

The design/build contract provides for final design and construction of the twin bored tunnels, complete with cross-passages, along the 2.56-mile alignment. Contract scope includes demolition and removal of structures and clearing sites to facilitate construction operations. A tunnel boring machine (TBM) launch shaft will be constructed at the westerly end of the Westwood/VA Hospital Station. Upon substantial completion, FKTP-JV will turn over all temporary lighting and ventilation to the follow-on contractor (Contract C1152).

Contract C1152 – Stations, Trackwork, Systems and Systems Integration Testing: The procurement of this design/build 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 on a Best Value selection process with an option at Metro’s discretion for Best and Final Offers (BAFO). In February 2019, the Board authorized the CEO to award the C1152 Stations, Trackwork, Systems, and Systems Integration Testing contract to Tutor Perini/O&G, JV (TPOG), subject to the FTA approval of a Full Funding Grant Agreement (FFGA). After the February Board action, FTA issued an LONP on April 18, 2019, that allows contract award to occur prior to receipt of an FFGA. The Board approved award of the C1152 contract at the May 2019 Board Meeting, and the Contract was awarded on May 28, 2019. Notice to Proceed was issued on July 15, 2019, with a commencement date of July 16, 2019.

The Design/Build contract provides for final design and construction of the infrastructure along the 2.56-mile alignment. Contract scope includes demolition and removal of structures and clearing sites to facilitate construction operations. The twin bored tunnels will be complete with walkways including all mechanical, electrical, and finished work. Two underground stations are to be constructed, with the Westwood/VA Hospital Station having two double crossovers, one at each end of the station. Each station will be equipped with stairs, escalators, and elevators which meet ADA requirements. The scope of work also includes all architectural finishes, mechanical and electrical systems and equipment including train control, traction power, communications, trackwork, system tie-in at the future Century City Constellation Station, testing and commissioning.

Contract C1153 – Advanced Utility Relocations: The work scope of this firm fixed price contract included the relocation of existing LADWP power and water utilities within the construction limits of the Westwood/UCLA Station. Metro issued Notice of Intent (NOI) to award to Steve Bubalo Construction Company (SBCC) on October 2, 2017, and NTP on January 2, 2018. SBCC was responsible for working in streets, procuring materials, and coordinating with the utility owner. SBCC constructed 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. SBCC achieved contract substantial completion on June 30, 2019, and Contract Final Acceptance was issued by Metro on April 13, 2020.

Contract C1204 - Shuttle and Valet Services During Construction of the Westwood/VA Station: The work scope for this firm fixed price contract includes providing shuttle and valet services to the West Los Angeles Veterans Affairs (VA) Medical Center during the decommission of Parking Lot 42 and buildout of the replacement parking structure. The Request for Proposal (RFP) was issued on January 15, 2021. Contract awarded to Everpark Inc. on December 6, 2021, and NTP issued with shuttle and valet service transferred to Everpark Inc. on January 03, 2022.

Contract C1212 - VA Parking Structure: The Invitation For Bid (IFB) documents for the VA Parking Structure were solicited on October 14, 2022. C1212 consists of a multi-story parking structure and parking lot work at the West Los Angeles Veterans Affairs (VA) Medical Center and parking lot work at the General Services Administration in West Los Angeles.

Metro Furnished Equipment

Metro to procure a contract to provide 16 Heavy Rail Vehicles (HRV) necessary to operate the extension of the Purple Line. The scope of the HRV contract includes design, manufacturing, testing and delivery of the vehicles. An additional contract will be procured for the Universal Fare System (UFS). The scope of the UFS contract will include design, fabrication, and installation of equipment at the two new stations and system testing.

Program Management

The Purple (D Line) Extension Transit Project Section 3 Project is being managed under the direction of an Integrated Project Management Office (IPMO). WSP Global (WSP) provides engineering and design support services, while MPPC Partners, a Joint Venture provides construction management support services. The on-site program management team is also supported by Metro headquarters' resources and includes, but not 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 2027. In June 2018, the Board authorized to establish the Life of Project (LOP) Budget for the Tunnels portion of the Project. In February 2019, the Board amended the LOP Budget to include the Stations portion of the Project. The LOP Budget for the Westside Purple Line Extension Section 3 Project is \$3.2 billion excluding Finance Charges of \$387.4 million. A detailed LOP Budget forecast is included under the Budget and Cost Forecast section of this report.

Funding is projected from a variety of sources to include:

- Federal – Section 5309 New Starts
- Federal – Section 5309 New Starts (ARPA-CIG)
- Federal – STBG (Surface Transportation Block Grant)
- Federal – CMAQ (Congestion Mitigation & Air Quality)
- Local Agency Contributions
- TCRP (*Transit Cooperative Research Program*)
- Measure R 35%
- Measure M 35%
- State RIP (*Regional Improvement Program*)

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; abnormal and emergency scenarios in which random combinations of system interactions are tested and equipment “burned-in”; and training of emergency services as well as Metro personnel who will operate and maintain the extension. Activities occurring during Pre-Revenue Operations are carried out by a designated Metro Project Rail Activation Group.

EXECUTIVE SUMMARY

In April 2023, the Project achieved 48% completion to-date based on earned value measurements for the overall Project. The current focus of the Project is production mining in both BR and BL tunnels, continuing final design for Contract C1152 (Stations, Trackwork, Systems and Systems Integration Testing), utility relocations including the steam tunnel relocation at Westwood/VA Station, and station excavation at the Westwood/UCLA station and Westwood/VA station.

Contract C1151 has a substantial completion date of April 2023 and scheduled to demobilize by July 2023, per Contract Modification 23. Contract C1152 has a substantial completion date of June 2026 and scheduled to demobilize by December 2026 in support of Revenue Service in 2027.

The following is an overview of current design and construction activities.

Design Status

- The Engineering Management Services team continues to provide engineering services during construction, real estate support services, supporting Metro in reviewing the C1152 Stations final design submittals and the C1151 and C1152 review of submittals, responding to RFIs, and assisting in the preparation and review of Changes.
- C1151 – Tunnels Contract: The design work for this contract is substantially complete. Metro has Approved for Construction all of the design unit packages.
- C1152 – Stations Contract: The list of the various design unit (DU) packages is listed below:
 - DU 40: VA Station Temporary Works
 - APDU 41 (41A, 41B, 41D)
 - APDU 42
 - APDU 43 (43A)
 - APDU 44 (44A, 44B)
 - APDU 45
 - APDU 46
 - DU 50: UCLA Station Temporary Works
 - APDU 51 (51A, 51B, 51C)
 - APDU 52, 52A, 52B
 - APDU 53
 - APDU 54
 - APDU 55
 - DU 60: VA Station
 - APDU 61 (61A, 61B)
 - DU 60 (60, 60A, 60B)
 - DU 70: UCLA Station

- DU 70 (70, 70A, 70B, 70C, 70D)
- DU 81: Tunnels/Cross Passages and Track
- DU 82: Systems
- DU 90: Tail Track Exit Shaft and Western VA Staging Area (APDU 90A/90B)

Final design for the various design packages is on-going. Design unit packages progress to date:

- DUs 60, 70, 81, 82:
 - 100% design is on-going for DUs 70A, 70B
 - AFC design is on-going for DU 60A, 60B, 70, 70C
 - IFC is on-going for DU 60, 60A, APDU 61A/61B, 70D, 81, 82
- DU 90:
 - IFC is on-going for APDUs 90A, 90B
- APDUs 41, 42, 43, 44, 45, 51, 52, 53, 54:
 - 100% design is on-going for APDUs 53, 55 (Parts 3)
 - AFC design is on-going for APDUs 52A, 52B, 55 (Parts 1, 2, & 4)
 - IFC is on-going for APDUs 41A, 41D (LA County portion), 54 (Parts 2 & 4)

Approved for Construction (AFC) design packages:

- APDUs 41A, 41D (LA County portion)
- APDU 54 (Part 2)
- APDU 61A/61B
- DU 70D
- APDUs 90A, 90B

Issued for Construction (IFC) design packages:

- APDUs 41B, 42, 43, 44, 45, 46
- APDUs 51A, 51B, 51C, 52, 54 (Part 3), 55 (Part 3)
- *APDU 90B IFC*
- *DU 60A IFC*

DUs and APDUs submitted this reporting period:

- APDU 41D – LABOE (OTS) – LABOE Response
- APDU 45 ECI-012 IFC Rev 1 – Vault 400 (CO-70.1)
- *APDU 90A AFC*
- *APDU 90B IFC*
- *DU 60A IFC*

Construction Status

- C1153 – Advanced Utility Relocations: (Complete)
Substantial completion occurred on June 30, 2019, and the contract is 100% complete. The City of Los Angeles’ Bureau of Contract Administration signed-off on all punch list items on July 31, 2019. SBCC completed all punch list items and submitted 100% billing for all remaining items. SBCC submitted request for Certificate of Final Acceptance and release of retention on April 12, 2020, and Final Acceptance was issued by Metro on April 13, 2020. Metro has issued a contract modification to close the balance of provisional sums and final payment and the release of retention was processed to the contractor. Metro issued the final release of retention check and SBCC issued “Unconditional Waiver and Release on Final Payment” on July 16, 2020.
- C1151 – Tunnels Contract:
Tunnel Boring Machine (TBM) No.1 has completed mining to Constellation on 4/19/23. TBM No. 1 has mined over 13,529 feet (100% complete). TBM No.2 has completed mining to Constellation on 4/15/23. TBM No. 2 has mined over 13,536 feet (100% complete). TBM disassembly works and preparatory works for Cross Passage 55 and 54 are ongoing.
- C1152 – Stations Contract:
Final design continues and is about 97% complete. *At the Westwood/UCLA station, station excavation is at 19% complete. At the main station entrance and station box, Level 2 waler and strut installation is ongoing with 37% of Level 2 walers placed and 22% of Level 2 struts placed. Preloading and welding of walers and struts is ongoing. Hanging of utilities beneath the road deck continues. Night-time trench excavation along Wilshire Boulevard for provision of temporary station power continues. At the Westwood/VA station, excavation is in progress for the full length of the station from the Caltrans basin (in the east) to Bonsall West (in the west). Excavation is about 21% complete. Walers and struts continue to be installed at excavation levels 1 and 2; 24% of walers and 19% of struts have been installed at excavation levels 1 and 2. Excavation and installation of lagging and struts is ongoing for Level 3. Hanging of utilities within/over the station box continues. The VA steam tunnel relocation continues, with Mechanical, Electrical, and Plumbing fit-out inside the VA steam tunnel (85% complete). Backfilling around the VA steam tunnel vaults remains at 90%. Installation of geotechnical instrumentation continues at both UCLA and VA stations.*
- Third Party Utility Relocations:
The LADWP power cutover to 10921 Wilshire Boulevard (Westwood Medical Center) is expected to be completed in Spring 2023.

Cost and Schedule Summary

Metro issued Contract Modification 2 to the C1151 Tunnels contractor for extending Substantial Completion by 95 calendar days, and in October 2022 Metro issued Contract Modification 23 that approved a time extension for 60 calendar days. The total time extension for C1151 Substantial Completion is 155 calendar days. Mitigation efforts are being evaluated to improve on the Substantial Completion date and minimize impact to the C1152 Stations contractor. It is anticipated that the forecast revenue service date can be achieved.

The Critical Path (CP) of the Project includes third party utility relocations, C1152’s Contractor required utility relocations, followed by both stations’ support of excavation, street decking, station structural box excavations, and structural concrete for the stations. Next it flows into installation of the interior finishes and electrical equipment, followed by systems, testing and pre-revenue operations. A summary graphic of the critical path is found on Page 17.

C1151 Tunnels

	Original Contract Dates	Time Extension	Current Contract	Forecast	Variance CDs
Notice to Proceed	01/15/19A	0	01/15/19A		0
Substantial Completion	11/15/22	155	04/19/23	04/19/23	0

C1152 Stations, Trackwork, Systems, and Testing

	Original Contract Dates	Time Extension	Current Contract	Forecast	Variance CDs
Notice to Proceed	7/16/19A	0	7/16/19A		0
Substantial Completion	6/08/26	0	6/08/26	6/08/26	0

Project costs continue to track within budget and projected contingency limits. The Current Budget and Current Forecast remain the same this period at \$3.6 billion. Detailed cost and budget information is provided on Page 19.

The following claims that are being evaluated:

- C1151 – Tunnels
 - NOIC 05 - STV's Notice of Intent to Claim pertaining to RFC 12.4 -3rd Party Delays
- C1152 – Stations, Trackwork, Systems, and Testing
 - Claims 01 & 02 – General Requirement Items (Insurance & Bond Cost)

- Claim 03 – Reserve right for time extension under unilateral change orders
- NOIC 04 – Delay impact due to utilities relocation at Wilshire & Gayley
- NOIC 05 – VA grade separated pedestrian connection reconfiguration
- NOIC 06 – RFC-019 Design cost regarding TTES reconfiguration
- NOIC 07 – RFC-020 Design cost regarding TTES Vane Implementation
- NOIC 08 – RFC-011 Time impact on design management related to CO-001 thru CO-030
- NOIC 09 – RFC-011 Additional time & compensation for CO-15.5
- NOIC 10 – RFC-025 Acoustic Criteria and Speech Intelligibility Criteria (Design)
- NOIC 11 - RFC-28 - Added Cost to Remove & Dispose Unsuccessful Tree Relocation
- NOIC 12 - RFC-14 - UCLA Station -East UPE Grates (Design)

Key Management Concerns

Slower than planned tunneling production may impact C1152 work.

Project Construction Photos



BR Tunnel – CP-55 Tube Spile Installation



Westwood/VA Station: Installation of Level 1 Lagging and Waler Supports (at Bonsall Facing West)



Westwood/VA Station: Installation of Level 2 Struts Between GL22 & GL01



Westwood/UCLA Station: Station Box Excavation and Utility Supports Underneath Wilshire Blvd

PROJECT UPDATE

PROJECT SCHEDULE

Project Summary Schedule

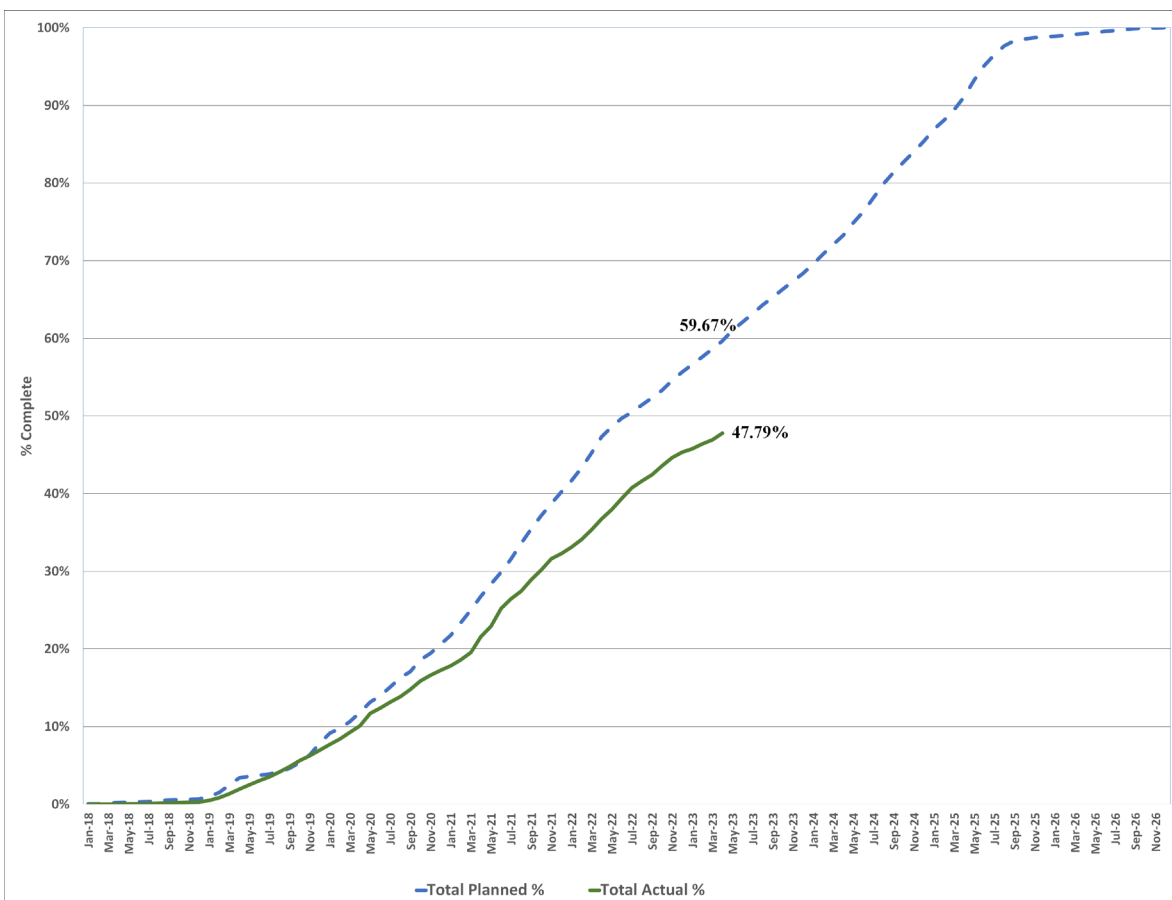
WPLE Section 3 Century City Constallation to VA Hospital - Current		WPLE Section 3 Level 1 Schedule						MASTER SCHEDULE											
Activity Name	Finish	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028							
		Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q							
WPLE Section 3 Century City Constallation to VA Hospita	05-Dec-26	[Summary bar from 2018 to 2026]																	
PROJECT PLANNING & DEVELOPMENT	21-Dec-18 A	[Summary bar from 2018 to 2020]																	
ENGINEERING	01-Mar-23	[Summary bar from 2019 to 2023]																	
RIGHT-OF-WAY (ROW)	24-Feb-23	[Summary bar from 2020 to 2023]																	
OWNER FURNISHED EQUIPMENT	24-Apr-25	[Summary bar from 2021 to 2025]																	
CONSTRUCTION	13-May-26	[Summary bar from 2020 to 2026]																	
Utilities	16-Feb-21 A	[Summary bar from 2019 to 2021]																	
Guideway & Track	08-Jul-25	[Summary bar from 2020 to 2025]																	
Stations	29-Oct-25	[Summary bar from 2021 to 2025]																	
Systems	13-Oct-25	[Summary bar from 2021 to 2025]																	
Testing	13-May-26	[Summary bar from 2021 to 2026]																	
Start Up	2027	[Summary bar from 2026 to 2027]																	
Dynamic Testing and System Integration Tests	2026	[Summary bar from 2025 to 2026]																	
Test Running & Trial Operations	2027	[Summary bar from 2026 to 2027]																	
Revenue Service Date - RSD	2027	[Summary bar from 2026 to 2027]																	
Miscellaneous	2027	[Summary bar from 2026 to 2027]																	
Metro Activitie s	2027	[Summary bar from 2026 to 2027]																	
FTA Process & Approvals	16-Mar-20 A	[Summary bar from 2018 to 2020]																	

-  Remaining Work
-  Milestone
-  Summary

Progress Summary

	Status	Change from Last Period	Comment
Forecast Revenue Service	2027		
FFGA Revenue Service	2028		FFGA was awarded in March 2020
Final Design Progress:			
Contract C1151	99%	0%	
Contract C1152	97%	0%	
Construction Contracts Progress:			
Contract C1151	93%	2%	
Contract C1152	26%	0.6%	
Contract C1153	100%	0%	Substantial Completion occurred on 6/30/19

Planned vs. Actual Progress



Key Milestones Six-Month Look Ahead

	Milestone Date	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23
C1152 Issued DU 60A IFC, VA Station Restoration	04/03/23A	⬡					
C1152 Issued APDU 90B IFC, Western VA Staging Area Permanent Restoration	04/03/23A	⬡					
C1151 BL Tunnel Reached Constellation Station	04/15/23A	⬡					
C1152 Submitted DU 70B 100%, Lot 36 Restoration	04/18/23A	⬡					
C1151 BR Tunnel Reached Constellation Station	04/19/23A	⬡					
C1151 Began Cross Passage 55 Excavation	04/20/23A	⬡					
C1152 Submitted DU 60B AFC, LACDPW Restoration	04/28/23A	⬡					
C1151 Begin Cross Passage 54 Excavation	05/02/23		⬡				
C1152 Issue APDU 61B IFC, Westwood VA Station N. Entrance & Ped Bridge	05/11/23		⬡				
C1152 Issue APDU 41D IFC, LADWP Water Main	05/12/23		⬡				
C1152 Issue DU 82 IFC, System Design	05/12/23		⬡				
C1152 Submit DU 70 AFC, UCLA Station	06/01/23			⬡			
C1152 Complete VA Steam Tunnel	06/06/23			⬡			
C1152 Issue DU 60 IFC, VA Station	06/21/23			⬡			
C1152 Complete Temporary Power Service Duct Bank Construction	06/21/23			⬡			
C1152 Complete All Final Design Packages	07/07/23				⬡		
C1152 Begins Rail / Track Procurement	08/02/23					⬡	
C1152 Complete VA Level 4 Excavation (East Sequence)	08/03/23					⬡	
C1152 Begin VA Level 1 Excavation (West Sequence)	09/01/23						⬡

MTA Staff
 MTA Board Action
 FTA (Federal Transit Administration)
 Other Agencies
 Contractor
 D/B Contractor

Major Equipment Delivery

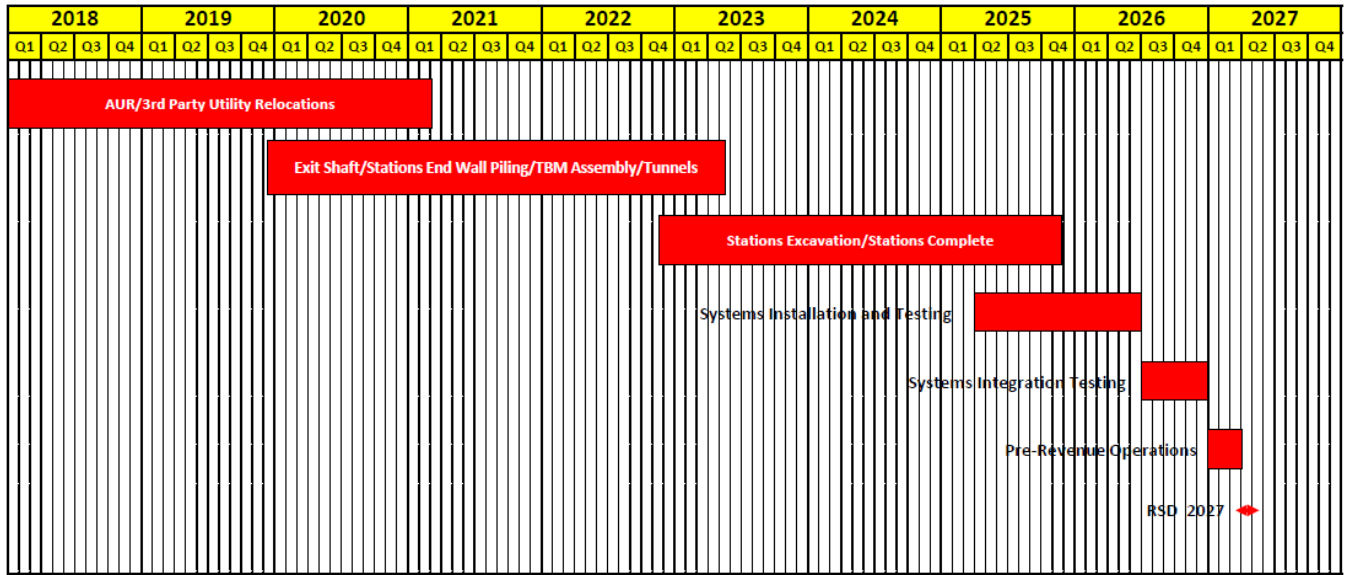
	Submittal	Procurement	Delivery	Installation
C1152 Design/Build (Stations)*				
Emergency Ventilation Fans	08/08/23	08/09/23	04/16/24	12/12/24
Station Elevators	10/13/23	10/16/23	10/08/24	06/30/25
Station Escalators	02/08/24	02/09/24	02/03/25	07/22/25
Track – Running Rail	08/01/23	08/02/23	11/22/23	09/09/24
Traction Power Equipment	11/01/23	11/02/23	07/11/24	12/24/24
Automatic Train Control	08/08/23	05/15/23	05/12/25	07/22/25
SCADA RTU System	11/01/23	11/02/23	07/11/24	03/18/26
Radio System	11/01/23	05/15/23	05/12/25	03/18/26
Heavy Rail Vehicles***	Vehicle Procurement - TBD			
Universal Fare System**	TBD	TBD	TBD	2027

**Dates derived from TPOG’s March 2023 Schedule Update.*

***Forecast release date by TPOG to UFS Contractor access at stations.*

****Metro supplied equipment.*

Project Critical Path

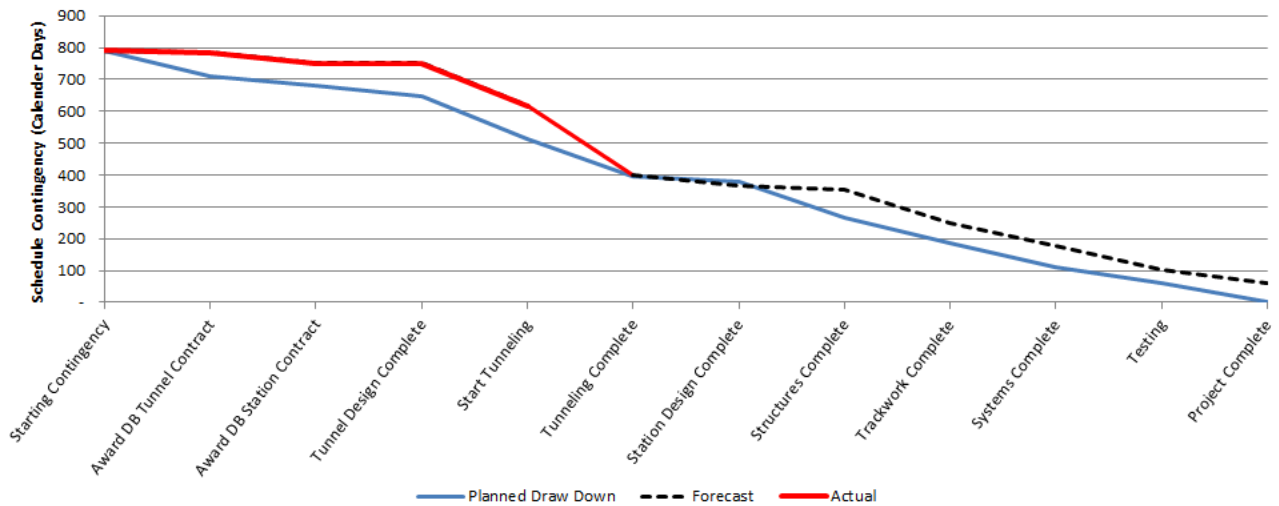


Project Schedule Contingency Drawdown Analysis

The project schedule contingency drawdown model provides a dual-axis perspective based upon the FFGA RSD of December 2028 and Metro’s Project Master Schedule (PMS) forecast of 2027.

The introduction of the PMS model axis reflects a proportional distribution of available float relative to the FFGA model.

With regards to the FFGA RSD, schedule float is currently twelve (13) months with respect to the current forecast project completion.



PROJECT COST

Project Cost Analysis

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	GUIDEWAYS & TRACK ELEMENTS	490,712	0	448,271	0	419,181	3,953	277,345	0	448,271	0
20	STATIONS, STOPS, TERMINALS, INTERMODAL	624,995	0	717,637	0	595,611	1,221	176,620	0	743,456	25,819
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN, BLDGS	0	0	0	0	0	0	0	0	0	0
40	SITWORK & SPECIAL CONDITIONS	497,805	0	759,008	111	686,306	5,027	482,871	0	759,008	0
50	SYSTEMS	130,778	0	81,835	0	57,266	0	207	0	81,835	0
	CONSTRUCTION SUBTOTAL (10-50)	1,744,291	0	2,006,751	111	1,758,365	10,201	937,043	0	2,032,570	25,819
60	ROW, LAND, EXISTING IMPROVEMENTS	467,874	0	416,057	445	78,691	441	77,282	0	420,489	4,432
70	VEHICLES	38,092	0	43,806	0	0	0	0	0	43,806	0
80	PROFESSIONAL SERVICES	508,093	0	533,151	194	356,043	3,372	307,962	0	542,136	8,985
	SUBTOTAL (10-80)	2,758,350	0	2,999,765	750	2,193,098	14,014	1,322,287	0	3,039,001	39,236
90	UNALLOCATED CONTINGENCY	464,142	0	222,983	0	0	0	0	0	236,747	13,764
100	FINANCE CHARGES	387,375	0	387,375	0	3,739	0	3,739	0	387,375	0
	TOTAL PROJECTS 865523 (FFGA & Non-FFGA)	3,609,867	0	3,610,123	750	2,196,838	14,014	1,326,026	0	3,663,123	53,000
	ENVIRONMENTAL/PLANNING - 465523	1,131	0	875	0	875	0	875	0	875	0
	TOTAL PROJECTS 465523 (ENV/PLAN'G)	1,131	0	875	0	875	0	875	0	875	0
	TOTAL PROJECTS 465523 & 865523	3,610,998	0	3,610,998	750	2,197,713	14,014	1,326,902	0	3,663,998	53,000

Original Budget

Original Budget of \$3.6 billion reflects the Life of Project (LOP) budget approved by the Board on February 28, 2019, plus Finance Charges of \$387.4 million.

Current Budget and Current Forecast

The Current Budget and Current Forecast remain the same this period at \$3.6 billion and 3.7 billion, respectively.

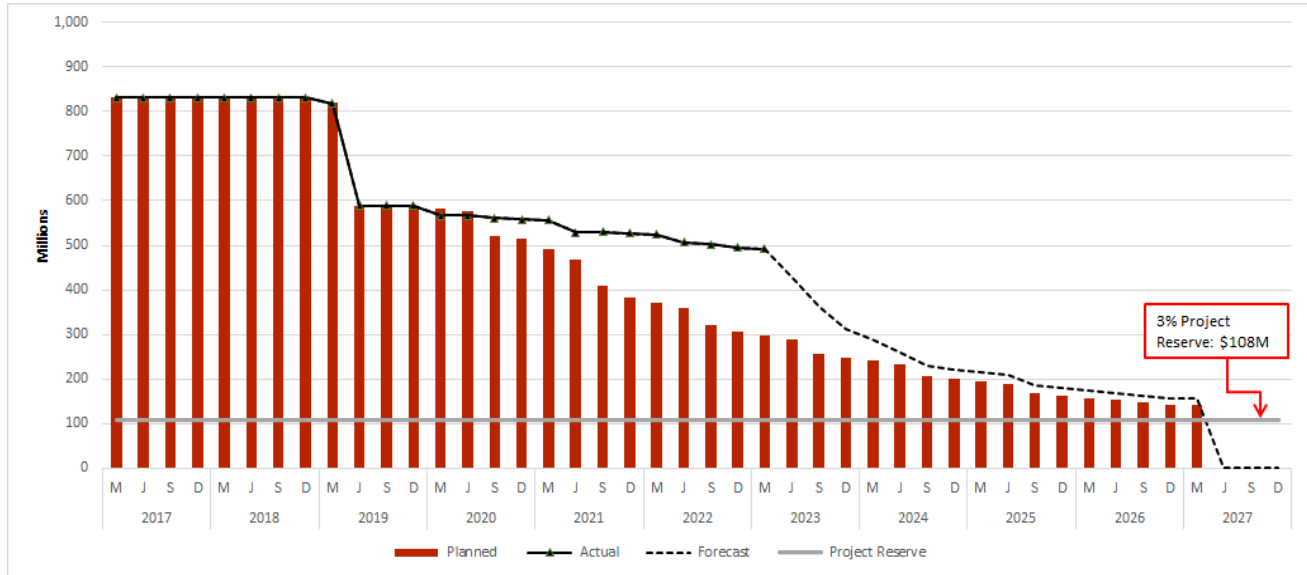
Commitments

The Commitments increased by \$0.8 million primarily due to Contract Modifications and Change Orders for Stations Contract C1152. The \$2.2 billion in Commitments to date represent 60.9% of the Current Budget.

Expenditures

The Expenditures increased by \$14.0 million primarily due to costs associated with the Tunnels Contract C1151, Stations Contract C1152, VA Shuttle and Valet Services Contract 1204, Metro Project Administration, Engineering Management Support Services, Construction Management Support Services, Project Management Support Services, Environmental Support Services, Quality Assurance Support Services, Legal Services, ROW Agreement, appraisal and acquisition fees, Engineering Design Services, and Third Party Master Cooperative Agreements. The \$1.3 billion in Expenditures to date represent 36.8% of the Current Budget.

Cost Contingency Drawdown



Cost Contingency Drawdown Analysis

The Original Budget of \$3.6 billion includes finance charges of \$387.4 million. It also includes a project cost contingency of \$830.6 million or 23.1% of the total project, which is based on the amended Life of Project (LOP) Budget approved by the Board in February 2019. An allocated contingency amount of \$366.5 million is included in the total cost contingency. The allocated contingency is an amount to cover anticipated but unknown contract modifications issued by Metro [when applicable to specific contracts within each Standard Cost Category (SCC)].

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

The project cost contingency drawdown curve is based on a 2027 Forecast Revenue Service Date (RSD).

The allocated contingency decreased this period by \$0.3 million due to approved Contract Change Order and executed Contract Modifications for Stations Contract C1152.

PROJECT COST CONTINGENCY					
DOLLARS IN THOUSANDS					
	Original Contingency (Budget)	Previous Period	Current Period	To-Date	Remaining Contingency (Forecast)
Unallocated Contingency	464,142	(241,159)	-	(241,159)	222,983
Allocated Contingency	366,455	(97,905)	(281)	(98,187)	268,268
Total Contingency	830,597	(339,064)	(281)	(339,346)	491,251

Risk Management

Summary of Risks

During the quarterly risk register meeting, one (1) new risk was identified, four (4) risks were closed, resulting in a total of seventy-one (71) risks to be managed in the next quarter.

Of the seventy-one (71) risks, seven (7) are scored as high, thirty-eight (38) as medium, and twenty-six (26) as low.

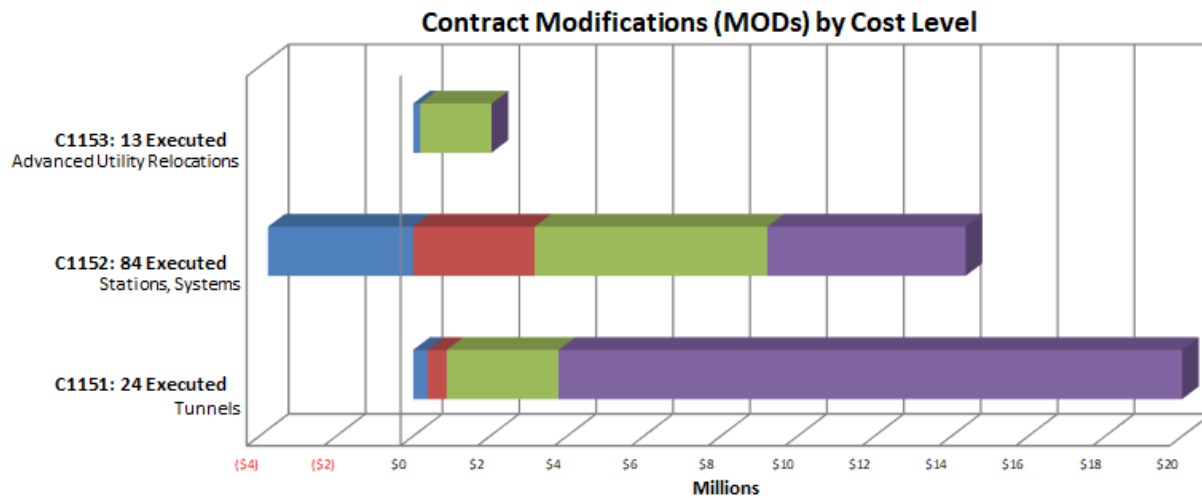
The next Purple (D Line) Extension Transit Project Section 3 Risk Register quarterly update is scheduled for June 2023.

Top Risks

The table below shows the top five (5) project risks.

Risk ID	Risk Description	Risk Score	Action Items
653.30	Delay of contract turnover from tunnels to stations.	22.5	1. Review schedule interface between tunnels and stations contracts. 2. Setup regular collaboration meeting. 3. Monitor the tunneling and station excavation progress and seek opportunities for schedule recovery. 4. Review the contractor's cost and schedule from C1151 for the resequencing 5. C1152 Contractor to submit an integrated schedule with C1151 Tunnel Contractor.
10.001	Cross passage work coordination between 2 contractors - C1151 & C1152	20.0	1. C1152 to re-evaluate and re-sequencing the schedule to interface with C1151 cross passage construction.
90.4	Covid 19 pandemic impact	20.0	1. RFCs under review by Metro
383.4	Temporary power supply from SCE /LADWP may not be available for Station Contract	17.5	1. Setup regular meeting with SCE/LADWP to monitor their progress. 2. Temporary power availability delay can be mitigated by using generators. 3. LADWP temp power is required for dewatering as well as ventilation. Risk can be mitigated by use of a large number of generators. However, delays could be incurred if there are O&M issues with generators, and excavation work can get delayed in absence of power connection to station
400.3	Additional measures may be needed if ground improvement does not work as intended or if further investigation by Contractor shows different conditions from baseline requiring a different ground improvement design/method. (cross passages)	13.5	1. Revising baseline report being finalized with C1151 Contractor. 2. Contractor to provide probing plan after TBM tunnel.

Summary of Contract Modifications



	C1151 24 Executed	C1152 84 Executed	C1153 13 Executed	Total
■ Under \$100K	\$ 379,733	\$ (3,772,705)	\$ 181,291	\$ (3,211,681)
■ \$100K to \$250K	\$ 495,290	\$ 3,159,454	\$ -	\$ 3,654,744
■ \$250K to \$1M	\$ 2,907,610	\$ 6,050,365	\$ 1,855,558	\$ 10,813,533
■ Over \$1M	\$ 20,702,529	\$ 5,157,689	\$ -	\$ 25,860,218
Total Contract MODs	\$ 24,485,162	\$ 10,594,803	\$ 2,036,849	\$ 37,116,814
Contract Award Amount	\$ 410,002,000	\$ 1,363,620,000	\$ 11,439,000	\$ 1,785,061,000
% of Contract MODs	6.0%	0.8%	17.8%	2.1%

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

Twenty-four Contract Modifications (MODS) with a total value of \$24.5 million have been executed since the award of C1151 Contract for Tunnels.

Eighty-four Contract Modifications (MODS) with a total value of \$10.6 million have been executed since the award of C1152 Contract for Stations.

Thirteen Contract Modifications (MODS) with a total value of \$2.0 million have been executed since the award of C1153 Contract for Advanced Utility Relocations.

DISADVANTAGED BUSINESS ENTERPRISE (DBE)

Contract C1151

As of March 2023:

DBE Goal – Design The percentage of funds apportioned to Design Contracts	11.19%
Current DBE Commitment Design Total DBE Committed Dollars divided by Total Contract Value for Design	\$3.17M 17.22%
Current DBE Participation Total amount paid to date to DBEs divided by the amount paid to date to Prime	\$3.15M 17.85%

Six (6) Design DBE sub-consultants have been identified for Design.

DBE Goal – Construction The percentage of funds apportioned to Construction Contracts	17.10%
Current DBE Commitment Construction Contract commitment divided by current contract value for Construction	\$79.51 20.03%
Current DBE Participation Total amount paid to date to DBEs divided by the amount paid to date to Prime	\$77.78M 21.53%

Seventy-Five (75) Construction DBE sub-contractors have been identified to date.

Contract C1152

As of March 2023:

DBE Goal – Design The percentage of funds apportioned to Design Contracts	19.25%
Current DBE Commitment Design Total DBE Committed Dollars divided by Total Contract Value for Design	\$15.76M 17.92%
Current DBE Participation Total amount paid to date to DBEs divided by the amount paid to date to Prime	\$14.06M 19.32%

Nineteen (19) Design DBE subcontractors have been identified for Design.

DBE Goal – Construction The percentage of funds apportioned to Construction Contracts	21.00%
Current DBE Commitment Construction Contract commitment divided by current contract value for Construction	\$56.93M 4.60%
Current DBE Participation Total amount paid to date to DBEs divided by the amount paid to date to Prime	\$34.30M 7.23%

Twenty-two (22) Construction DBE sub-contractors have been identified to date.

PROJECT LABOR AGREEMENTS (PLA)

As of February 2023

Contract C1151

Targeted Worker Goal Construction work to be performed by residents from Economically Disadvantaged Area of Los Angeles County	40.00%
Targeted Worker Current Attainment	42.82%
Apprentice Worker Goal Construction work to be performed by Apprentices	20.00%
Apprentice Worker Current Attainment	16.09%
Disadvantaged Worker Goal Construction work to be performed by Disadvantaged Workers	10.00%
Disadvantaged Worker Current Attainment	9.91%

Contract C1152

Targeted Worker Goal Construction work to be performed by residents from Economically Disadvantaged Area of Los Angeles County	40.00%
Targeted Worker Current Attainment	61.49%
Apprentice Worker Goal Construction work to be performed by Apprentices	20.00%
Apprentice Worker Current Attainment	12.63%
Disadvantaged Worker Goal Construction work to be performed by Disadvantaged Workers	10.00%
Disadvantaged Worker Current Attainment	13.00%

Contract C1153

Targeted Worker Goal Construction work to be performed by residents from Economically Disadvantaged Areas in the United States	40.00%
Targeted Worker Current Attainment (Final)	47.64%
Apprentice Worker Goal Construction work to be performed by Apprentices	20.00%
Apprentice Worker Current Attainment (Final)	21.18%
Disadvantaged Worker Goal Construction work to be performed by disadvantaged workers	10.00%
Disadvantaged Worker Current Attainment (Final)	12.07%

FINANCIAL/GRANT

Status of Funds by Source*

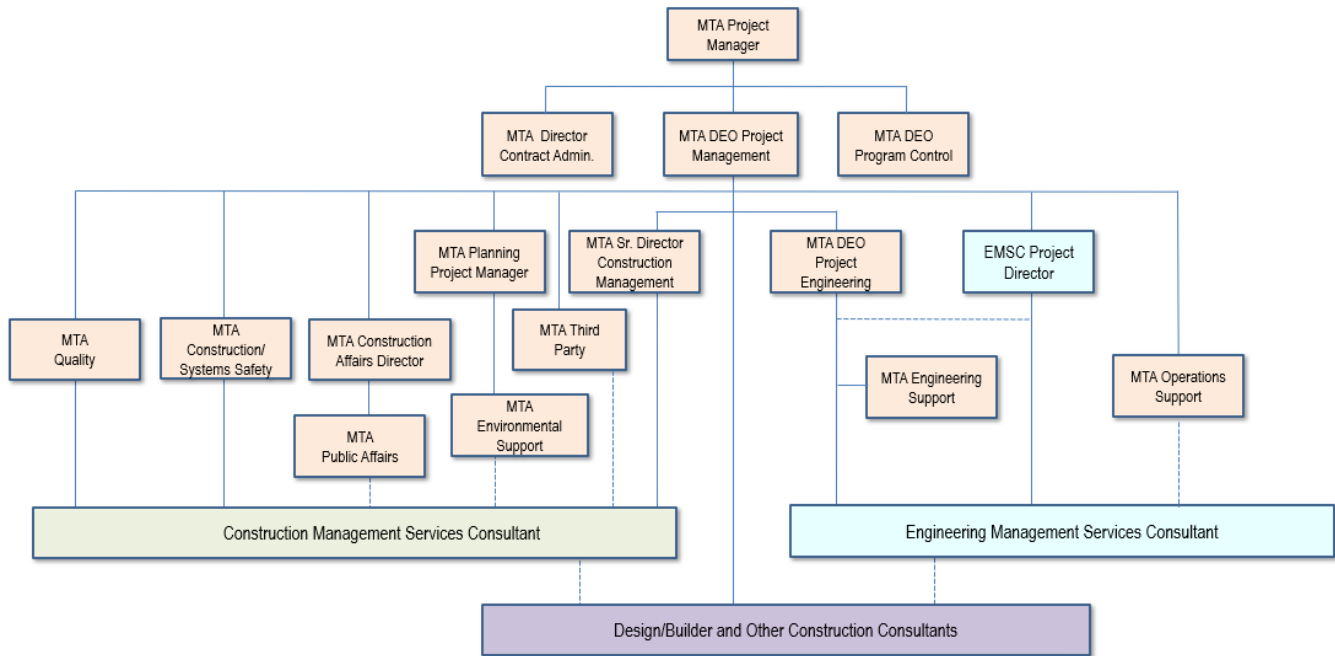
SOURCE	(A)	(B)	(C)	(D)	(D/B)	(E)	(E/B)	(F)	(F/B)
	ORIGINAL BUDGET	TOTAL FUNDS ANTICIPATED	TOTAL FUNDS AVAILABLE	COMMITMENTS \$	%	EXPENDITURES \$	%	BILLED TO FUNDING SOURCE \$	%
FEDERAL - SECTION 5309 NEW STARTS	\$1,300.000	\$1,300.000	\$571.984	\$442.053	34%	\$442.053	34%	\$442.053	34%
FEDERAL - SECTION 5309 NEW STARTS (ARPA-CIG**)	\$0.000	\$93.438	\$93.438	\$93.438	100%	\$93.438	100%	\$93.438	100%
FEDERAL STBG	\$93.048	\$93.048	\$70.000	\$38.692	42%	\$36.490	39%	\$1.469	2%
FEDERAL CMAQ	\$45.000	\$45.000	\$45.000	\$45.000	100%	\$45.000	100%	\$45.000	100%
LOCAL AGENCY	\$96.391	\$96.391	\$0.000	\$0.000	0%	\$0.000	0%	\$0.000	0%
TCRP	\$10.001	\$10.001	\$10.001	\$10.001	100%	\$10.001	100%	\$10.001	100%
MEASURE R 35%	\$844.063	\$750.625	\$499.654	\$535.164	71%	\$56.171	7%	\$30.352	4%
MEASURE M 35%	\$1,190.661	\$1,190.661	\$689.591	\$1,033.365	87%	\$643.749	54%	\$643.749	54%
STATE RIP	\$31.834	\$31.834	\$0.000	\$0.000	0%	\$0.000	0%	\$0.000	0%
TOTAL	\$3,610.998	\$3,610.998	\$1,979.668	\$2,197.713	60.9%	\$1,326.902	36.7%	\$1,266.062	35.1%

Original Budget based on 2019 Board approved LOP Budget, plus Finance Charges of \$387.4 million.

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).

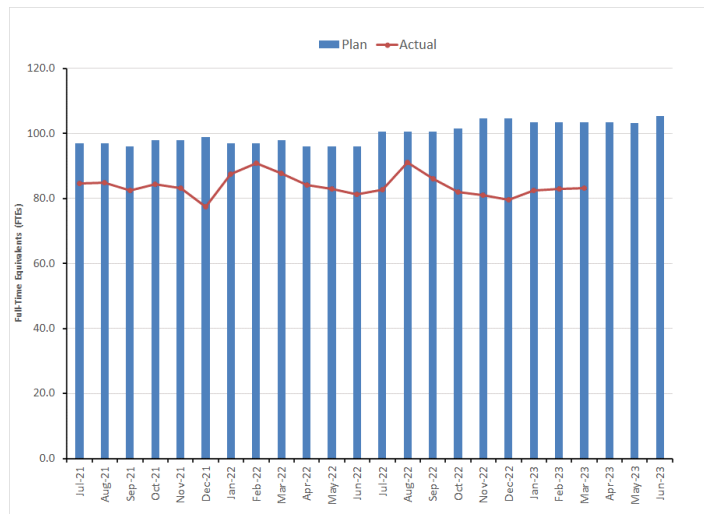
Metro Purple (D Line) Extension Transit Project Section 3 Responsibility and Reporting Matrix



The overall FY23 Total Project Staffing Plan averages 102.90 FTEs per month.

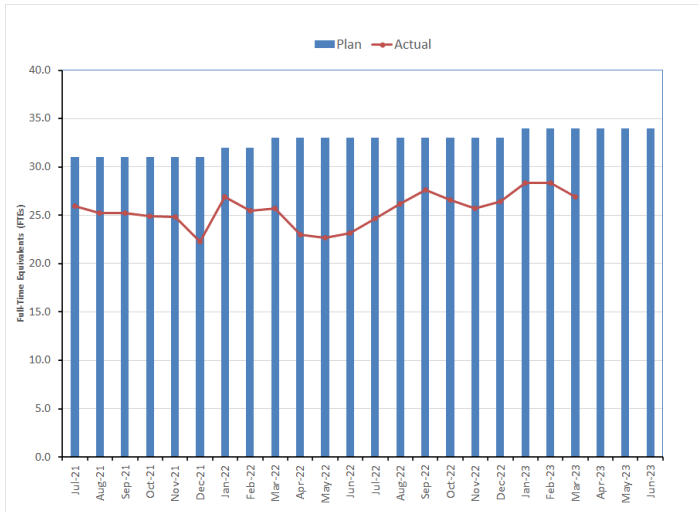
For March 2023, there were a total of 26.9 FTEs for MTA's Project Administration Staff and 56.2 FTEs for Consulting Staff. The total project staffing for March 2023 was 83.1 FTEs.*

Total Project Staffing – Metro and Consultants

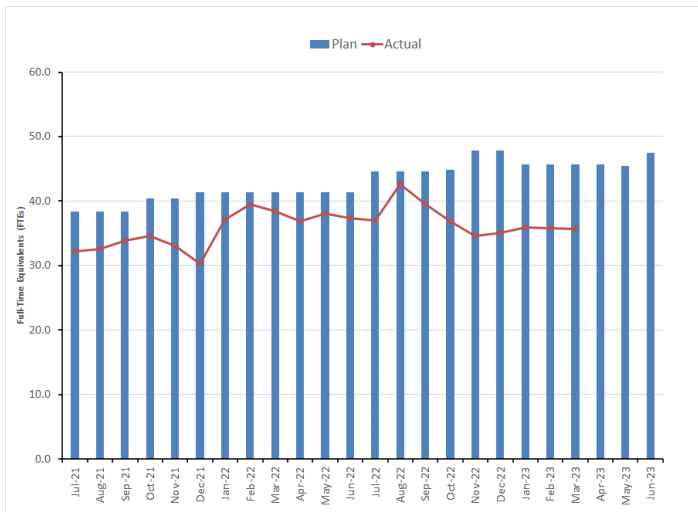


*Actuals include 4.0 FTEs related to Project Management Support Services (PMSS).

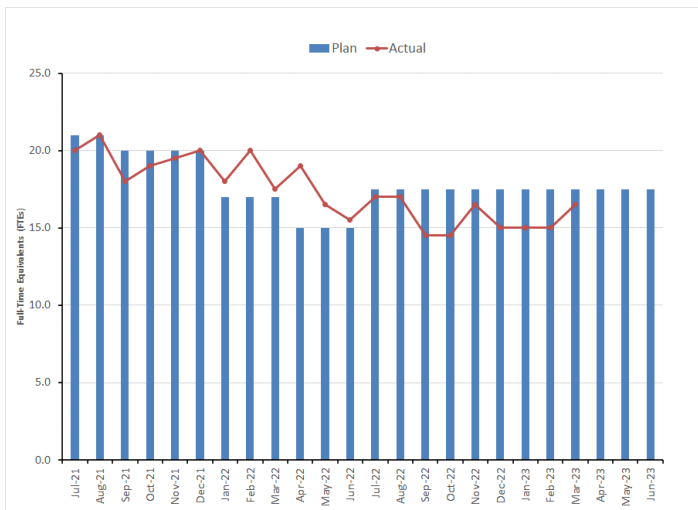
Metro Staff



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.

REAL ESTATE

Real Estate Status Summary of all Rights												
# Properties	Properties	Description	Number of Project Parcels	Certified	Appraisals Completed	Offers Made	Agreements Signed	Condemnation Filed	Relocations		Parcels Available	
									Required	Completed		
85	Westfield Mall (2)	SSE	2	2	1	1	0	1	0	0	1	
		TCE	1	1								
	WW Med	SSE	1	1	1	1	0	1	2	0	0	
		SE	1	1								
		TCE	1	1								
	10900	SSE	1	1	1	1	0	0	1	0	0	
		SE	1	1								
		TCE	1	1								
	UCLA	PE (SE & SSE)	1	1	0	0	0	0	0	0	0	1
		SSE	1	1								
		SE	1	1								
		TCE	1	1								
	GSA	SSE	1	1	1	1	1	0	0	0	0	1
		PE (SE & SSE)	1	1								
VA	SSE	1	1	1	1	1	0	0	0	0	1	
	SE	1	1									
	TCE	1	1									
	PE (SE & SSE)	1	1									
SSE Only (75)	SSE	75	75	75	75	26	62	0	0	75		
Public street (2)	SSE (CPU code)	2	2	N/A	N/A	N/A	N/A	N/A	N/A	2		
Caltrans	JUA (handled by Third Party)	1	1	N/A	N/A	1	0	0	0	1		
85		Total	96	96	80	80	29	64	3	0	82	

QUALITY ASSURANCE

- Attended weekly project staff meetings for C1151 Tunnels, C1152 Stations, and FKTP & TPOG weekly progress meetings.
- Held QA/QC meetings with C1151 FKTP and C1152 TPOG Quality Teams.
- Attended QA/QC Priority Meeting for both C1151 and C1152 Construction and Process Assessments.
- *Oversight Metro Management Audit on C1151 FKTP Construction Quality Program.*
- Reviewed construction materials test reports, special inspection reports (N & M) and Oversight Inspectors' Daily Reports.
- Provided review comments on C1151 and C1152 submittals and RFIs.
- Conducted **new assessment** and issued subsequent conforming or non-conforming items for the following:
 - C1151 (Tunnels Contract)
 - *Tunnels\TBM Grouting (Desk Top) Assessment based on N & M and oversight inspector DIR.*
 - *Out of Tolerance Tunnel Horizontal Alignment observed at BL tunnel between Sta. 725+90 (Ring 2510) and Sta. 725+65 (Ring 2515) per 31 71 19 3.03 A 1 requirement. Several cracks, leaking and spalling are observed between BL Tunnel Ring #2505 to #2516.*
 - *Out of tolerance horizontal deviation observed in BR tunnel between Sta. 773+15 (Ring #2570) and Sta. 772+15 (Ring #2590) and multiple cracks and leakages present from Ring #2573 to Ring #2585.*
 - *Out of tolerance horizontal deviation observed in BR tunnel between Sta. 723+15 (Ring #2570) and Sta. 722+15 (Ring #2590) and multiple cracks and leakages present from Ring #2573 to Ring #2585. BL Tunnel Lining Alignment Deviation Based on Metro's Independent Survey Results.*
 - *Alignment deviation on tunnel lining alignment based on Metro's Independent As-Built survey results.*
 - C1152 (Stations Contract)
 - *UCLA Station \SOE – Welding (Bracing, struct) (Field Assessment) Wales (Shop Fabrication @ Fontana Yard)*
 - *UCLA Station - Welding of Utility Hangers and Seismic Bracing (Field Assessment)*
 - *UCLA Station \SOE – Welding (Bracing, struct) (Field Assessment) at Main Entrance SOE.*
 - *UCLA Station \SOE – Welding (Bracing, struct) (Field Assessment) Wales Splicing / Starpacks - 1st Level.*
 - *Construction of permanent pipe racks in VA Steam Tunnel vault 400.*
 - *VA Station Steam Tunnel - Vault 200 Roof Concrete Pre-Pour / Pour (Field Assessment).*
 - *VA Station\SOE – Welding Fabrication (Bracing, struct) (Field Assessment) - Shop Struts Fabrication at Fontana Yard.*

- *VA Station\SOE – Welding (Bracing, struct) - Field Assessment on 2nd Level Struts / Wales / Starpacks.*
- *VA Station\Mass Excavation (Field Assessment)*
- *Environmental assessment on GR-01 35 35 Water Pollution Contro*
- Conducted ongoing monthly assessments and issued subsequent conforming or non-conforming items for the following:
 - C1151(Tunnels Contract)
 - BR and BL TBM Alignment Deviation.
 - TBM grout testing.
 - C1152 (Stations Contract)
 - *Westwood/VA Station and Westwood/UCLA Station SOE – Shop Welding (Struts, Wals, bracing fabrication) at TPOG Fontana Yard.*
 - Westwood/VA and Westwood/UCLA station excavation/lagging/struts & walers welding/strain gauge installation/utility support & hanging.
 - VA Steam Tunnel Construction of permanent racks in VA Steam Tunnel vaults.
 - VA Station Steam Tunnel - Vault Roof Concrete Pre-Pour / Pour (Field Assessment)

ENVIRONMENTAL

- Conducted field environmental monitoring and inspections for environmental compliance and VA/UCLA MOA's for FKTP and TPOG.
- Participated in contract construction progress meetings with FKTP and TPOG.
- Paleontological monitoring at Westwood/UCLA and Westwood/VA Stations during excavations.
- *Compliance inspection for tunneling process water.*
- *Completed air quality sampling at VA Hospital Station site per MOA with the VA.*

CONSTRUCTION AND COMMUNITY RELATIONS

- *Attended the following meetings: Construction Management meetings for the Tunnels and Stations contracts, Section 2 and 3 Coordination, LADOT, VA Coordination, LABOE, Tishman Speyer coordination, UCLA, Westwood Medical Plaza coordination, and Westwood Building Managers.*
- *Produced and distributed 57 construction work notices for Westwood/UCLA work activities, Westwood/VA work activities, and instrumentation along the tunnel alignment.*
- Continued coordination with major stakeholder groups including LA Council Districts 5 and 11, Department of Veterans Affairs, County of Los Angeles, UCLA, and Westwood Village.
- Updated Facebook/Twitter and Metro.net as needed.

CREATIVE SERVICES

- Managed artist design development for integrated station artworks
- Continued assessment of Project operating impacts to signage between sections and systemwide
- *Continued coordination with arts and cultural stakeholders*

SAFETY AND SECURITY

Contract C1151 Tunnels

- Metro Project Safety staff attended weekly Toolbox Meetings, Progress Meetings, readiness reviews, and other project meetings to evaluate Contractor's Safety Program compliance with contract requirements.
- Metro / FKTP-JV project safety staff conducted schedule, safety / security and over-the-shoulder review meetings.
- Metro Project 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 Project Safety staff conducted project Safety Orientation, SCSR and H2S Safety Training for new Metro / Consultants and IPMO project staff.
- Metro Project Safety staff conducted right-of-way (ROW) and safety/security walks, safety/security reviews, and coordination with FKTP-JV staff for oversight and support of all project field work activities.
- *Metro Project Safety hosted the March Monthly Safety and Security Meeting for Section 3 Westside-Purple Line Extension Contractors on April 28, 2023.*
- *FKTP-JV reported Zero (0) Recordable Injury in April 2023.*
- *FKTP-JV reported 36,322 actual work hours through April 2023.*
- *FKTP-JV Project to Date through April 2023, Contractor FKTP-JV Work Hours are 1,419,127.*
- *FKTP-JV Project to Date, there are Nineteen (19) Recordable Injuries and Five (5) Days Away from Work Injuries. The Recordable Injury Rate of 2.68. The Bureau of Labor Statistics reports the National Average Recordable Injury Rate is 2.4.*

Contract C1152 Stations, Trackwork, Systems, and Testing

- Metro Project Safety staff attended weekly Toolbox Meetings, Progress Meetings, readiness reviews, and other project meetings to evaluate Contractor's Safety Program compliance with contract requirements.
- Metro/(TPOG-JV) project safety staff conducted schedule, safety/security, and over-the-shoulder review meetings.
- Metro Project Safety staff conducted project Safety Orientation, SCSR and H2S Safety Training for new Metro/Consultants and IPMO project staff.
- *Metro Project Safety hosted the April Monthly Safety and Security Meeting for Section 3 Westside-Purple Line Extension Contractors on April 28, 2023.*
- Metro Project Safety staff conducted project Safety Orientation for new Metro/Consultants and IPMO project staff.
- Metro Project Safety conducted right-of-way (ROW) and safety/security walks, safety/security reviews, and coordination with TPOG-JV staff for oversight and support of all project field work activities.
- *TPOG-JV reported Zero (0) Recordable Injuries in April 2023.*
- *TPOG-JV reported 29,215 actual work hours through April 2023.*
- *TPOG-JV Project to Date through April 2023 Contractor TPOG-JV Work Hours is 1,195,491.*
- TPOG-JV Project to Date, there are Zero (0) Recordable Injuries and Zero (0) Days Away from Work Injuries. The Recordable Injury Rate of 0.0. The Bureau of Labor Statistics reports the National Average Recordable Injury Rate is 2.4.

APPENDIX

CHRONOLOGY OF EVENTS

January 2011	FTA approval to enter Preliminary Engineering
August 2012	FTA Record of Decision
April 2017	Issued RFQ for C1151 Tunnels Design/Build Contract
May 2017	Issued IFB for C1153 AUR Contract
September 2017	Issued RFQ for C1152 Stations, Trackwork, Systems & Testing Design/Build Contract
January 2018	Issued NTP for C1153 AUR Contract
April 2018	C1153 Contractor commenced work
August 2018	FTA approval to enter New Starts Engineering Phase
September 2018	Received FTA approval for Letter of No Prejudice for C1151 Tunnels Contract
November 2018	Issued Contract Award for C1151 Tunnels Contract
December 2018	FTA completed environmental review of 23 CFR §771.130 (c)
January 2019	Issued NTP for C1151 Tunnels Contract
April 2019	Received FTA's Letter of No Prejudice for C1152 Stations Contract
May 2019	Issued Contract Award for C1152 Stations Contract
June 2019	C1153 AUR Contract achieved Substantial Completion
July 2019	Issued NTP for C1152 Stations Contract
September 2019	FKTP began SCE Ductbank Construction
December 2019	Partial VA Site Access Given for Tree Removal
January 2020	Access to Tail Track Exit Shaft & Western Staging Area
February 2020	UCLA Lot 36 Access Given to TPOG
March 2020	FTA Executed FFGA

June 2020	FKTP Completed SCE Ductbank Construction
July 2020	Began TBM Assembly in the Tail Track Exit Shaft
October 2020	TBM #1 Began Initial Tunnel Operations on October 23, 2020
November 2020	Access to VA Campus Lot 42
December 2020	Installation of Starter Gantry for TBM #1 (BR)
January 2021	TBM #1 (BR) Bore the first 415 feet. Permeation Grouting at Sepulveda started
February 2021	Removal of Starter Gantry for TBM #1 (BR)
March 2021	Installation of Starter Gantry and Cradle for TBM #2 (BL). Start Utilities Relocation in VA. Westwood/VA Station SOE pile installation started.
April 2021	Commission TBM #2 (BL) Starter Gentry & Start Boring. SOE Piling at VA started
May 2021	Storm Drain and Sanitary Sewer in VA completed
June 2021	West Endwall at VA completed
July 2021	Removal of Starter Gantry for TBM #2 (BL)
August 2021	UCLA Station SOE Pile Installation Started (Install West to East). Westwood/VA SOE pile installation complete. TBM #1 (BR) resumed full-mode mining.
September 2021	East Endwall at Westwood/VA Hospital Station completed. Permeation grouting work underneath Sepulveda Blvd completed.
October 2021	Install Soldier Piles Wilshire North - Stage 1 East - Gayley to Westwood.
November 2021	TBM #1 (BR) completed continuous mining underneath I-405 freeway and 96" MWD feeder. TBM #2 (BL) resumed full-mode mining.
December 2021	Contract C1204 – Shuttle and Valet Services During Construction of the Westwood/VA Station awarded to Everpark Inc. and NTP issued.
January 2022	BL TBM and BR TBM completed mining through the Westwood/VA Station and proceeding to the Westwood/UCLA Station. VA steam tunnel relocation work initiated.
February 2022	Concrete placement for the Construction on VA steam tunnel concrete cradle initiated. BR TBM reached the Westwood/UCLA Station, and the BL TBM completed the I-405/Sepulveda crossing.

March 2022	Installation of reinforced concrete pipes for the VA Steam tunnel commenced and was completed in the month. TBM #2 (BL) reached Westwood/UCLA Station.
April 2022	First hyperbaric intervention for tool changes on TBM #2 (BL).
May 2022	TBM #1 (BR) completed 50% of the tunnel drive. TBMs successfully passed through the location of Westwood/UCLA station. Casting of C1151 tunnel linings 75% complete.
June 2022	TBM #2 (BL) completed 50% of the tunnel drive.
July 2022	Current phase of Westwood/UCLA SOE piles complete (87% of piles) - SOE to be completed following pile installation for entrances in 2024.
August 2022	Commenced installation of Westwood/UCLA station road decking at Wilshire Blvd. Construction at relocated Chase Bank at Westwood/UCLA completed. SCE power cut-over at Westwood/VA completed.
September 2022	Ground improvement at Westwood/UCLA completed. Commenced change-over of Westwood/VA Steam lines to new condensate & steam lines.
October 2022	Completed Change-over of Westwood/VA Steam lines to new condensate & steam lines. Commenced excavation of Westwood/VA Station. TBM #1 (BR) completed 75% of the tunnel drive. Invitation For Bid (IFB) documents issued for the VA Parking Structure - Contract C1212.
November 2022	Completed temporary road decking at Wilshire Blvd over the Westwood/UCLA station box location. Started excavation of Westwood/UCLA station. At Westwood/VA station started installation of the first level of struts/bracing. Manufacture of seismic steel tunnel linings completed.
December 2022	TBM #1 (BR) started installation of seismic steel tunnel linings. Casting of C1151 tunnel linings 100% complete.
January 2023	Westwood/UCLA Station excavation 13% complete. Westwood/VA station excavation 16% complete. Both TBMs, BR & BL, have advanced east of Santa Monica Boulevard.
February 2023	Westwood/UCLA Station excavation 16% complete. Westwood/VA station excavation 17% complete.
April 2023	<i>Tunneling 100% complete.</i>