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FROM:

JAMES COHEN James Cohen SENIOR EXECUTIVE OFFICER, PROJECT MANAGEMENT

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

DECEMBER 2023 QUARTERLY PROJECT STATUS REPORT

Enclosed herewith is the Quarterly 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 December 29, 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

QUARTERLY PROJECT STATUS REPORT

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

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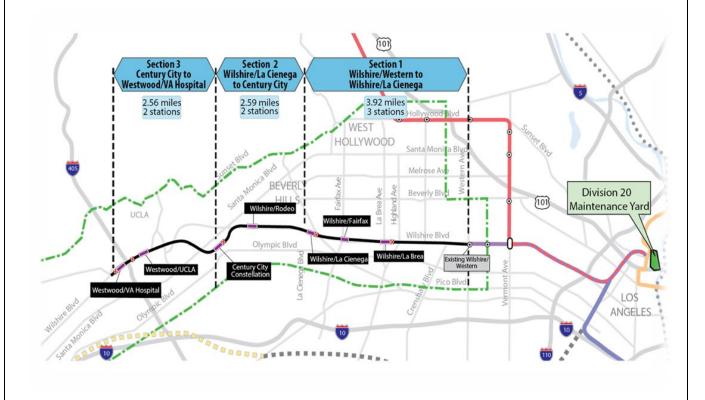
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#### **PROJECT OVERVIEW**

#### **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 2024 to Spring 2025.

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. |
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#### **EXECUTIVE SUMMARY**

In December 2023, the Project achieved 89.53% completion based on earned value measurements for design and construction. The critical path of the Project remains communications installation and testing at Wilshire/La Cienega Station.

The target forecasted substantial completion date for the Project is March 15, 2025. The target Revenue Service Date (RSD) for the Project is 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 installations continue.

Reach 2 (Wilshire/La Brea to Wilshire/Fairfax): electrical and systems installations are ongoing.

Reach 3 (Wilshire/Fairfax to Wilshire/La Cienega): third rail and electrical installations continue.

Reach 4 tunnel: track installation is complete. Third rail and electrical installations are ongoing.

Wilshire/La Brea Station: civil restoration is ongoing on Wilshire Boulevard. Entrance structure/plaza and appendage construction (emergency exit and exhaust structure), interior room build outs and escalator/elevator installation continue. MEP and systems installations move forward.

Wilshire/Fairfax Station: civil restoration on Wilshire Boulevard, entrance structure/plaza construction as well as architectural and MEP work at the platform and concourse levels are all moving forward. Stairs, elevator and escalator installations continue.

Wilshire/La Cienega Station: appendage work (emergency exit), civil restoration on Wilshire Boulevard and entrance structure/plaza construction are ongoing. Crossover track installation, architectural, MEP, systems, elevator and escalator work 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 Purple (D Line) Project 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 incorporated a newly revised schedule for the remaining work into the C1045 Design/Build Contract monthly schedule update process, which includes appendage construction, civil restoration, architectural and MEP (mechanical, electrical, plumbing) work, systems infrastructure installation, testing, etc. *Metro has received December 2023's schedule update for the C1045 Design/Build Contract, which reports the substantial completion date 383 calendar days after the June 29, 2024 contractual date.* 

The target substantial completion date is March 15, 2025. The Project's target RSD is Spring 2025.

The critical path of the Project remains communications installation and testing at Wilshire/La Cienega Station following by testing and pre-revenue operations. A summary graphic of the critical path is found on Page 14.

#### C1045 Design-Build Contract Schedule Metrics

|                           | Original<br>Contract<br>Date/Duration | Time<br>Extension<br>(CD) | Current<br>Contract<br>Schedule | Forecast<br>(Metro PMS) | Variance<br>CD<br>(Trending) |
|---------------------------|---------------------------------------|---------------------------|---------------------------------|-------------------------|------------------------------|
| NTP                       | 01/12/2015                            |                           |                                 |                         |                              |
| Substantial<br>Completion | 06/09/23                              | 386                       | 06/29/24                        | 07/17/25                | -383 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 three (3) open claims that are being evaluated:

- Claim 002 Reach 2 Gas Differing Site Condition
- Claim 003 Tunnel Lighting
- Claim TBD –Claim for Damages and Extension of Time

#### **Key Management Concerns**

<u>Item 1</u>: LADWP is requiring that the permanent surface hatch for Wilshire/Fairfax Station be installed prior to station permanent power energization. There is a potential 10-to-12-month delay to Wilshire/Fairfax Station energization if this position is maintained.

<u>Status/Action</u>: Metro executive management is discussing this issue with LADWP. The goal is to enact the same process as Wilshire/La Brea Station, where the Station will energize under a temporary surface hatch condition. An agreement has been reached between Metro and LADWP, where the Wilshire/Fairfax Station can be energized under a temporary surface hatch conditioned upon completion of an LABOE approved design for the Station's final surface hatch. The Project has received the hatch design approval from LABOE and has sent the approval package to LADWP.

<u>Item 2</u>: City of Beverly Hills (COBH) requires the installation of paddle gates.

<u>Status/Action</u>: TAP Technologies has stated that paddle gate modifications are not recommended for the WPLE1 Project due to possible impacts to the Revenue Service Date. The Project is moving forward with installing the purchased regular fare gates to meet Revenue Service Date. Operations will replace these existing gates with paddle gates after Revenue Service Date as per COBH requirement.

<u>Item 3</u>: the Design/Build Contractor's December 2023 schedule update is trending four months behind the Project's Substantial Completion date of March 15, 2025.

<u>Status/Action</u>: Metro has placed the Contractor on notice with regards to the current schedule trend. The Project continues to work with the Contractor updating the monthly schedule to ensure the latest construction sequences are being reported, tracking progress against interim milestones, and actively managing resources as needed. Currently, the Project's schedule is being driven by the work associated with the communications subcontractor, LKC. Metro and STS are in the process of confirming whether the planned completion dates for key interim milestones are still achievable. The target Substantial Completion date remains March 2025.

# **Project Construction Photos**



Wilshire/Western Interface Chamber Roof Water Protection Membrane Installation



Wilshire/La Brea Station Motor Control Center Wire Pulling



Wilshire/Fairfax Station Escalator Installation at Entrance



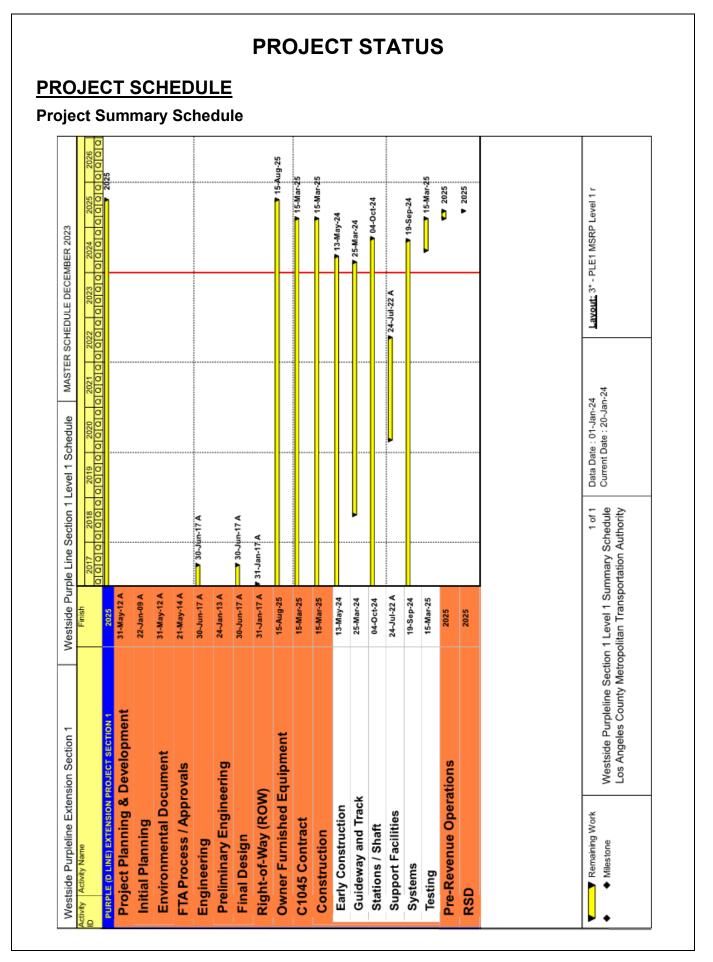
Wilshire/La Cienega Station Entrance Plaza Steel Supports



Reach 2 Tunnel Third Rail Installation



Wilshire/La Cienega Station Double Crossover Installation

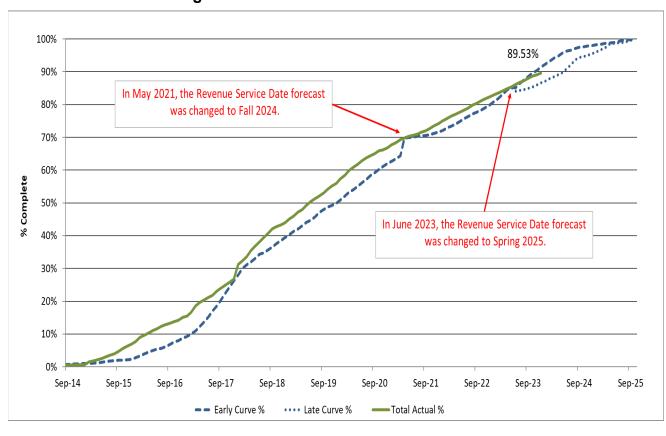


**Progress Summary** 

| rogress cummary                         | Status      | Change from<br>Last Period | Comment               |
|---|-------------|----------------------------|-----------------------|
| Forecast Revenue Service                | Spring 2025 | None                       |                       |
| 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                          | 88.9%       | 0.4%                       |                       |
| 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  | Dec-23   | Jan-24  | Feb-24             | Mar-24                          | Apr-24                                   | Ma y-24  |
|------------|--|---|--------------------|---------------------------------|--|--|
| 12/04/23 A |  |   |                    |                                 |  |  |
| 12/13/23 A |  |   |                    |                                 |  |  |
| 12/29/23 A |  |   |                    |                                 |  |  |
| 01/09/24   |  |   |                    |                                 |  |  |
| 01/24/24   |  |   |                    |                                 |  |  |
| 01/30/24   |  |   |                    |                                 |  |  |
| 02/01/24   |  |   |                    |                                 |  |  |
| 02/13/24   |  |   |                    |                                 |  |  |
| 03/01/24   |  |   |                    |                                 |  |  |
| 03/15/24   |  |   |                    |                                 |  |  |
| 04/12/24   |  |   |                    |                                 |  |  |
| 05/23/24   |  |   |                    |                                 |  |  |
|            |  |   | v<br>□             | D/B Contr                       | actor                                    |  |
|            |  |   |                    |                                 |  |  |
|            | Date  12/04/23 A  12/13/23 A  12/29/23 A  01/09/24  01/24/24  01/30/24  02/01/24  02/13/24  03/01/24  03/15/24  04/12/24  Design | Date  Date  12/04/23 A  12/13/23 A  12/29/23 A  01/09/24  01/24/24  01/30/24  02/01/24  02/13/24  03/01/24  03/15/24  04/12/24  Design Consultation | Date    12/04/23 A | Date   Dec-23   Jan-24   Feb-24 | Date   Dec-23   Jan-24   Feb-24   Mar-24 | Date         Dec-23         Jan-24         Feb-24         Mar-24         Apr-24           12/04/23 A         Image: Apr-24         Image |

# **Major Equipment Delivery**

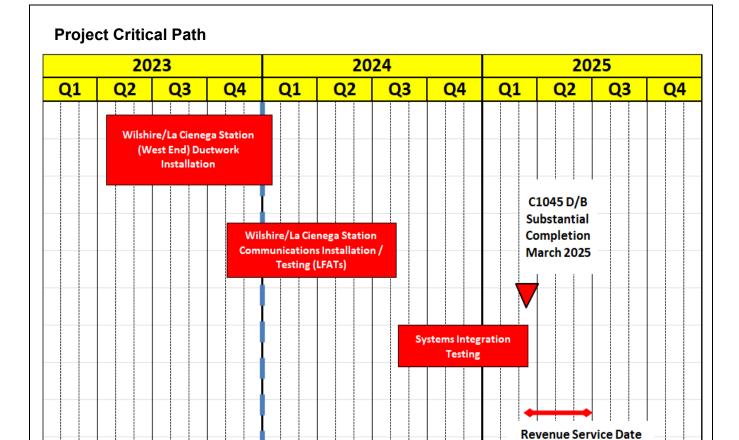
|                            | Submittal | Procurement | Delivery  | Installation |
|----------------------------|-----------|-------------|-----------|--------------|
| C1045 DESIGN/BUILD*        |           |             |           |              |
| Tunnel Boring Machine      | 1/29/16A  | 8/14/17A    | 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 | 1/9/24       |
| 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  | 4/18/24      |
| Radio System               | 2/2/17A   | 2/3/20A     | 1/4/24    | 1/5/24       |
|                            |           |             |           |              |
| Heavy Rail Vehicles***     | 7/16/15A  | 5/1/19A     | 6/15/24   | Spring 2025  |
|                            |           |             |           |              |
| Universal Fare System**    | 2/15/21A  | 9/30/21A    | 7/15/23A  | 9/12/24      |
|                            |           |             |           |              |

<sup>\*</sup> Dates derived from STS's December 2023 Revised Schedule

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

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

Spring 2025



The critical path of the Project remains communications installation and testing at Wilshire/La Cienega Station followed by systems integration testing and pre-revenue operations.

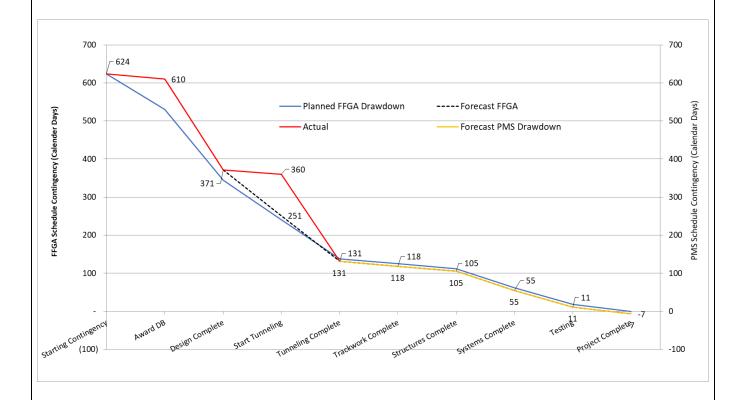
The target substantial completion date is March 15, 2025. The Project's target RSD is Spring 2025.

#### **Project Schedule Contingency Drawdown Analysis**

The project schedule contingency drawdown model is based upon the FFGA RSD of October 2024. Metro has adjusted the Project Master Schedule (PMS) forecast RSD to Spring 2025. The planned FFGA schedule contingency drawdown and the PMS forecast will remain the same until trackwork is completed.

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 impacts associated with the Reach 3 anomaly, which 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. With the installation of the Wilshire/La Cienega Station crossover track scheduled to start in November 2023, the completion timeframe for this milestone is under review.



#### **Risk Management Narrative**

## **Summary of Risks**

Two new potential risks were identified during the quarterly Risk Register meeting, and four risks were closed this period. A total of twenty-nine (29) risks remains to be managed in the next quarter.

Of the twenty-nine (29) risks, three (3) are scored as high, eight (8) as medium and eighteen (18) as low.

The next Purple (D Line) Extension Project Section 1 Risk Register quarterly update is scheduled for January 2024.

#### 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.     The Project has not received any formal request(s) for change (RFC).   |
| 686.0   | Installation of E2 Paddle gates on all Purple Line Stations (NEW).  | 10.5       | Decision to move forward with new fare gates may impact the Project revenue service date and budget.   |
| 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.     The contractor has added another crew for Reaches 1 & 2 systems installation in the tunnel. This change has been reflected in the monthly schedule update.  |
| 685.0   | Permanent power at Fairfax Station energization may not occur until the permanent hatch is installed (DWP requirement) (NEW). | 9          | Metro executive management to mitigate (remove) the requirement between energizing Fairfax Station (Permanent Power Available) and the installation of the permanent hatch.     Permanent power is available at Wilshire/La Brea Station.     LADWP has accepted the Wilshire/Fairfax switch room. The five month (or less) window for DWP to complete their work is underway. |
| 682.0   | Procurement / Installation of Special Trackwork.  | 6          | Special trackwork delivery potentially delayed to Feb-24; Currently scheduled for Nov-23.     Work arounds including advanced placement of concrete plinths and advanced coring currently being implemented.   |
| 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 June 2024 Systems Integration Testing start date.  |
| 680.0   | Supply chain (material) delivery  | 6          | 1. Actively manage schedule for material need/delivery dates.  |

#### **PROJECT COST**

#### Project Cost Analysis – 865518

DOLLARS IN THOUSANDS

| SCC  | DESCRIPTION                                    | ORIGINAL CURRENT BUDGET |        | COMMITMENTS |        | EXPENDITURES |        | CURRENT FORECAST |          | CURRENT<br>BUDGET /<br>FORECAST |          |
|------|--|-------------------------|--------|-------------|--------|--------------|--------|------------------|----------|---------------------------------|----------|
| OODL | אטב  |                         | PERIOD | TO DATE     | PERIOD | TO DATE      | PERIOD | TO DATE          | PERIOD   | TO DATE                         | VARIANCE |
| 10   | GUIDEWAY & TRACK ELEMENTS                      | 388,294                 | 1      | 494,309     | -      | 503,071      | 1,270  | 491,059          | (74,019) | 549,375                         | 55,065   |
| 20   | STATIONS, STOPS, TERMINALS, INTERMODAL         | 440,621                 | ı      | 606,997     | 465    | 585,158      | 4,754  | 520,702          | 3,632    | 633,556                         | 26,559   |
| 30   | SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS | 43,323                  | i      | 45,723      | -      | 45,702       | -      | 45,702           | (21)     | 45,702                          | (21)     |
| 40   | SITEWORK & SPECIAL CONDITIONS                  | 751,566                 | i      | 824,103     | 200    | 859,336      | 4,060  | 781,299          | 48,902   | 962,644                         | 138,541  |
| 50   | SYSTEMS  | 113,574                 | ı      | 122,195     | -      | 111,322      | 1,594  | 73,043           | 3,848    | 142,831                         | 20,635   |
|      | CONSTRUCTION SUBTOTAL (10-50)                  | 1,737,378               |        | 2,093,328   | 665    | 2,104,589    | 11,679 | 1,911,806        | (17,658) | 2,334,107                       | 240,779  |
| 60   | ROW, LAND, EXISTING IMPROVEMENTS               | 175,634                 | ı      | 202,980     | -      | 202,980      | -      | 190,311          | 7,930    | 210,910                         | 7,930    |
| 70   | VEHICLES                                       | 160,196                 | 1      | 108,302     | -      | 99,230       | 2,190  | 33,930           | -        | 108,302                         | 1        |
| 80   | PROFESSIONAL SERVICES                          | 412,710                 | ı      | 616,500     | 82     | 596,417      | 3,767  | 524,504          | 9,964    | 623,292                         | 6,792    |
|      | SUBTOTAL (10-80)                               | 2,485,918               | •      | 3,021,110   | 747    | 3,003,217    | 17,637 | 2,660,551        | 236      | 3,276,612                       | 255,502  |
| 90   | UNALLOCATED CONTINGENCY                        | 248,592                 | ı      | 68,400      | -      | ı            | -      | -                | (236)    | 37,898                          | (30,502) |
| 100  | FINANCE CHARGES                                | 375,470                 | ı      | 375,470     | -      | 125,286      | -      | 125,286          | -        | 375,470                         | ı        |
|      | TOTAL PROJECTS 465518 & 865518 (10-100)        | 3,109,980               | -      | 3,464,980   | 747    | 3,128,503    | 17,637 | 2,785,837        | -        | 3,689,980                       | 225,000  |
|      | ENVIRONMENTAL/PLANNING - 405518                | 8,505                   | 1      | 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   | 747    | 3,167,873    | 17,637 | 2,825,194        | -        | 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 remained the same this period at \$3.5 billion.

#### **Current Forecast**

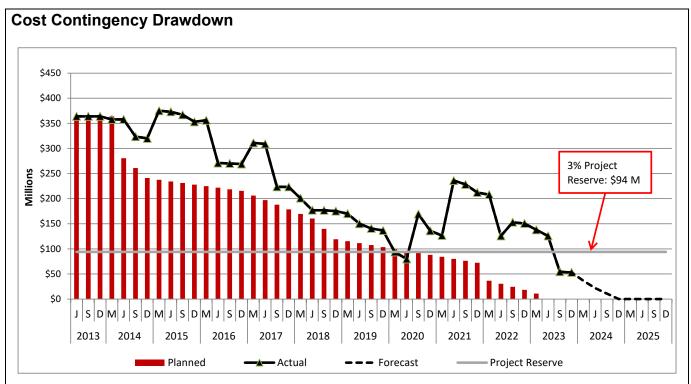
The Current Forecast remains the same this period at \$3.7 billion. However, Construction decreased by \$17.7 million due to less than anticipated future changes, Real Estate increased by \$7.9 million due to extension of temporary Construction Easement (TCE) lease agreements, and Professional Services increased by \$10.0 million due to continuation of engineering, construction, legal, and third party coordination management support services.

#### **Commitments**

Commitments increased by \$0.7 million this period due to an executed Change Order for the C1045 Design/Build Contract, landscaping services and Program Management Support Services. The \$3.2 billion in Commitments to Date represents 90.4% of the Current Budget.

#### **Expenditures**

Expenditures increased by \$17.6 million primarily due to costs associated with the C1045 Design/Build Contract, heavy rail vehicle procurement, Engineering Management Support Services, Construction Management Support Services and Metro Project Administration. The \$2.8 billion in Expenditures to Date represent 80.6% of the Current Budget.



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

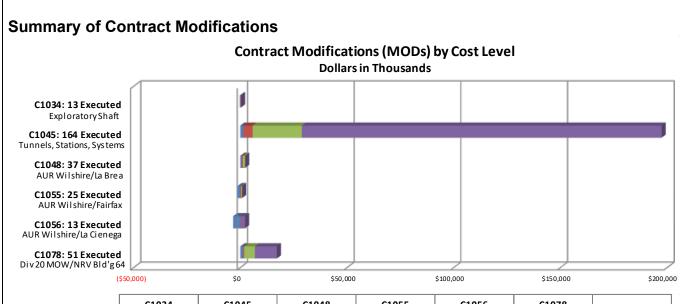
The Project's Original Budget of \$3.1 billion (plus Finance Charges of \$0.4 billion) included a project cost contingency of \$320.6 million or 10.2% of the total project budget. To date, the Project has experienced higher than expected differing site conditions, an increase in third party and safety requirements, and changes in scope.

The Board approved to increase the Life-of-Project (LOP) Budget 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 to address cost contingency drawdowns and fund ongoing expenses. Metro's Board is to be notified when it becomes necessary to drawdown contingency below the project reserve threshold to cover project costs. As of September 2023, the remaining contingency balance is below the 3% project reserve threshold of \$93.9 million.

The Project Cost Contingency Drawdown curve has been adjusted to reflect the Spring 2025 Revenue Service Date (RSD) forecast.

The Allocated Contingency decreased by \$0.5 million this period due to an executed Change Order for the C1045 Design/Build Contract.

| PROJECT COST CONTINGENCY DOLLARS IN THOUSANDS |  |           |       |           |        |  |  |  |
|---|--|-----------|-------|-----------|--------|--|--|--|
|   | Original Contingency (Budget)  Previous Period  Current Period |           |       |           |        |  |  |  |
| Unallocated Contingency                       | 248,592  | (246,346) | -     | (246,346) | 2,246  |  |  |  |
| Allocated Contingency                         | 71,963   | (20,764)  | (465) | (21,229)  | 50,734 |  |  |  |
| Total Contingency                             | 320,555  | (266,165) | (465) | (267,575) | 52,980 |  |  |  |



|                       | C1034       | C1045        | C1048       | C1055       | C1056       | C1078       | Total     |
|-----------------------|-------------|--------------|-------------|-------------|-------------|-------------|-----------|
|                       | 13 Executed | 164 Executed | 37 Executed | 25 Executed | 13 Executed | 51 Executed | Total     |
| ■ Under \$100K        | (164)       | 1,341        | 574         | (1,179)     | (3,325)     | 1,217       | (1,536)   |
| ■ \$100K to \$250K    | 321         | 4,437        | 617         | 436         | 245         | 578         | 6,634     |
| ■ \$250K to \$1M      | -           | 22,978       | 1,051       | 391         | -           | 5,034       | 29,454    |
| Over \$1M             | -           | 168,715      | -           | -           | 1,983       | 10,309      | 181,007   |
| Total Contract MODs   | 157         | 197,471      | 2,242       | (352)       | (1,097)     | 17,138      | 215,559   |
| Contract Award Amount | 6,487       | 1,636,419    | 6,181       | 14,430      | 20,250      | 52,830      | 1,736,597 |
| % of Contract MODs    | 2.4%        | 12.1%        | 36.3%       | -2.4%       | -5.4%       | 32.4%       | 12.4%     |

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

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

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 November 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    | \$14.6 M<br>20.25% |
| Current DBE Participation Total amount paid to date to DBEs divided by the amount paid to date to Prime | \$15.2 M<br>22.15% |

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                    | \$294.0 M<br>16.38% |
| Current DBE Participation  Total amount paid to date to DBEs divided by the amount paid to date to Prime | \$303.3 M<br>18.38% |

One hundred seventy-four (174) Construction DBE subcontractors have been identified to date.

# PROJECT LABOR AGREEMENTS (PLA)

As of November 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   | 63.21% |
| Apprentice Worker Goal   |        |
| Construction work to be performed by Apprentices   | 20.00% |
| Apprentice Worker Current Attainment   | 20.07% |
| Disadvantaged Worker Goal  |        |
| Construction work to be performed by disadvantaged workers   | 10.00% |
| Disadvantaged Worker Current Attainment  | 11.94% |

#### FINANCIAL/GRANT

# Status of Funds by Source DOLLARS IN MILLIONS

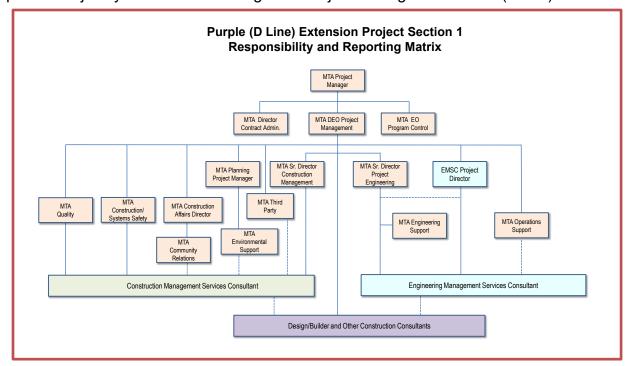
|  | (4)         | (D)         | (0)         | (D)         | (D (D) | (=)         | (E(D)    | (E)         | (E(D) |
|--|-------------|-------------|-------------|-------------|--------|-------------|----------|-------------|-------|
|  | (A)         | (B)         | (C)         | (D)         | (D/B)  | (E)         | (E/B)    | (F)         | (F/B) |
|  | ORIGINAL    | TOTAL       | TOTAL       | COMMIT      | IMENIS | EXPE        | NDITURES | BILLED TO   |       |
| SOURCE   | BUDGET      | FUNDS       | FUNDS       |             |        |             |          | SOUR        |       |
|  |             | ANTICIPATED | AVAILABLE   | \$          | %      | \$          | %        | \$          | %     |
| FEDERAL - SECTION 5309 NEW STARTS              | \$1,250.000 | \$1,250.000 | \$1,250.000 | \$1,223.971 | 98%    | \$1,030.670 | 82%      | \$994.132   | 80%   |
| 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   | \$1,342.159 | \$1,342.159 | \$1,075.694 | 80%    | \$926.316   | 69%      | \$816.118   | 61%   |
| 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    | \$5.932     | \$5.932     | \$5.932     | 100%   | \$5.932     | 100%     | \$5.932     | 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 | \$3,460.367 | \$3,167.873 | 90.4%  | \$2,825.194 | 80.6%    | \$2,678.458 | 76.4% |

EXPENDITURES ARE CUMULATIVE THROUGH DECEMBER 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 (\$0M) \*\*AMERICAN RESCUE PLAN ACT - CAPITAL INVESTMENTS PROGRAM (ARPA-CIG)

## PROJECT ORGANIZATION AND STAFFING

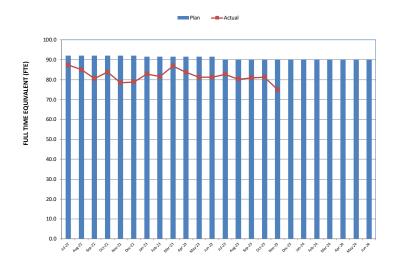
The Design/Build Contract is being managed by a joint team of Metro and consultant personnel jointly located at the Integrated Project Management Office (IPMO).



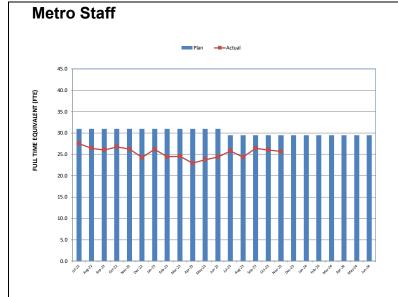
The overall FY24 Total Staffing Plan averages 90.1 FTEs per month.

For November 2023 there were a total of 25.7 FTEs for MTA's Project Administration Staff and 49.2 FTEs for Consulting Staff. The total Project staffing for November 2023 was 74.9\* FTEs.

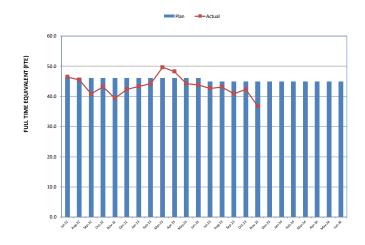
#### **Total Project Staffing – Metro and Consultants**



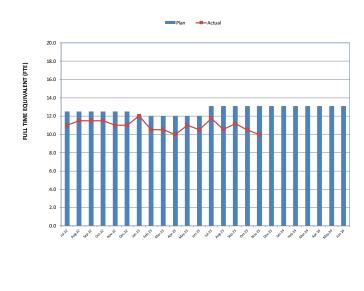
\*Actuals include 2.5 FTEs related to Project Management Support Services (PMSS).



#### **CM Support Services Staff (Consultant)**



#### **Engineering Services Staff (Consultant)**



All above data through November 2023

## **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 |                      |           |                         |                |                                      |          |           |           |
|--|----------------------|-----------|-------------------------|----------------|--------------------------------------|----------|-----------|-----------|
| Di-4i  | Number<br>of Parcels | Certified | Appraisals<br>Completed | Offers<br>Made | Agreements/<br>Settlements<br>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 Temporary Construction Easement (TCE) lease agreements.

#### **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 systems control.
  - Wilshire/Fairfax engaged in oversight activities for entrance structure/ancillary level and canopy painting.
  - Wilshire/La Cienega engaged in oversight activities for construction of appendage structures, backfill activities and street restoration.
- Processed 66 surveillances, 32 Quality Action Requests (QARs), 32 Nonconformance Reports (NCRs) and one (1) Corrective Action Request (CAR).

#### **ENVIRONMENTAL**

- Prepared and provided City of Los Angeles CEQA memo supporting the performance of decking removal at the Wilshire/Western access shaft using weekend closures.
- Federal Transportation Authority (FTA) accepted the 42<sup>nd</sup> Quarterly Mitigations Monitoring and Reporting Plan (MMRP) summary report as compliant.
- Verified plans for management of noise monitoring and mitigations for upcoming construction activities given new soundwall configurations within the City of Beverly Hills (COBH) in compliance with the MOA.
- Coordinated with local jurisdictions for permitting requirements for removal of existing city trees within the lateral limits of planned driveaway for future station entrance at Wilshire/Fairfax Station.

#### 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. Conducted December's monthly community
  update for Wilshire/La Cienega Station in person at Beverly Hills City Hall.
- 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 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 fifty-six (56) construction work notices for construction activities; the La Cienega Monthly look-ahead distributed by Walking Man; weekly lookahead for Division 20; weekly construction look-ahead emails to community stakeholders; and monthly look-ahead emails for the City of Beverly Hills.

#### **CREATIVE SERVICES**

- Reviewed and approved installation and sealant mock-up of Wilshire/La Brea Station concourse artwork.
- Reviewed and responded to Contractor submittals for art fabrication.
- Continued coordination with Contractor on design development for artwork lighting.
- Managed fabrication sample reviews with artist in coordination with the Contractor.
- Performed site surveys and developed design options/cost estimates for signage impacts at eight existing D line stations due to the phased construction of the Purple Line Extension Project.

#### **SAFETY & SECURITY**

- There were no recordable injuries, lost time or COVID cases in December.
- 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.
- November 2023 Contractor Work Hours (Design & Construction): 113,311
- Total Project to Date Work Hours (through November 2023): 9,375,483
- Project to Date Recordable Injury Rate: 0.87 (41 Recordable Injuries) (each rate is per 200,000 work hours) (National Rate: 2.4)
- Project to Date Total Days Away (DART) Injury Rate: 0.08 (4 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-<br>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.                                    |
|                |   |

| 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.  |
| June 2023      | Completed first delivery of contact rail to the Project site.   |
| July 2023      | Commenced Reach 2 tunnel (La Brea to Fairfax) fiber optic cable installation.   |
| August 2023    | Metro received the first Heavy Rail Vehicle at the Division 20 Yard.  |
| September 2023 | Wilshire/La Brea Station permanent power available.   |
| October 2023   | Completed deck panel removal at Wilshire/La Brea Station marking the completion of all deck panel removals for the Project. |
| November 2023  | Completed Wilshire/La Cienega Station's concrete platform.  |
| December 2023  | Commenced Wilshire/La Brea Station entrance structure plaza construction.   |