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June 18, 2020

**TO:** DISTRIBUTION

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**SUBJECT:** WESTSIDE PURPLE LINE EXTENSION SECTION 1 PROJECT  
MAY 2020 MONTHLY PROJECT STATUS REPORT

Enclosed herewith is the Monthly Project Status Report for the Westside Purple Line Extension Section 1 Project. This report contains the Los Angeles County Metropolitan Transportation Authority's (LACMTA) representation of the Westside Purple Line Extension Section 1 Project status for the period ending May 29, 2020.

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

JC: ah  
Enclosure



# Westside Purple Line Extension Section 1 Project



**Metro**



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

## **MONTHLY PROJECT STATUS REPORT**

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

**May 2020**



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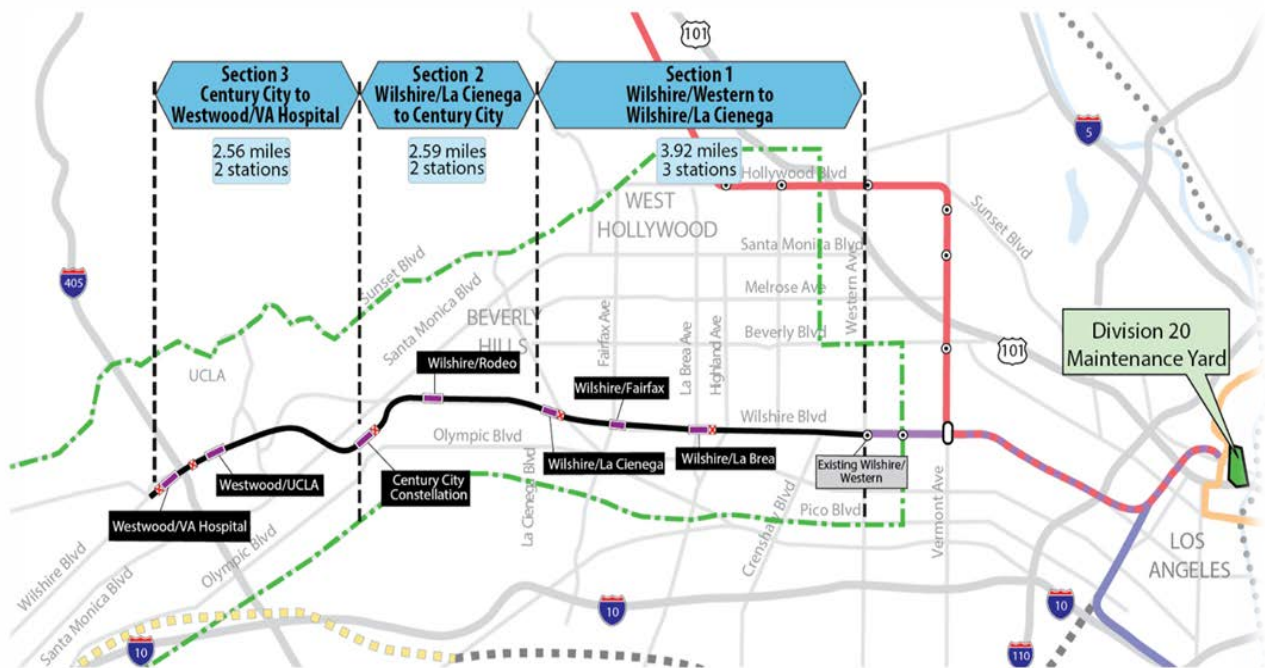
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## PROJECT OVERVIEW

### Project Background

Section 1 of the Westside Purple Line Extension Project is the first of three sections to be designed and constructed as part of the Los Angeles County Metropolitan Transportation Authority (LACMTA) Measure R Program. The program was approved by Los Angeles County voters in November 2008 and provides a half-cent sales tax to finance new transportation projects. In April 2012, the three sections of the Project were environmentally cleared and adopted by LACMTA Board of Directors.

Section 1 will extend the existing Purple Line by 3.92 miles beginning at the Wilshire/Western Station. From this station, the twin tunnel alignment will travel westerly within the existing Wilshire Boulevard right-of-way. Stations will be located at the intersections of Wilshire/La Brea, Wilshire/Fairfax, and Wilshire/La Cienega. All three of the station boxes will be located within the Wilshire Boulevard right-of-way with station portals extending to off-street entrances. Two of the stations, Wilshire/La Brea and Wilshire/Fairfax are within the jurisdiction of the City of Los Angeles. The Wilshire/La Cienega Station is within the City of Beverly Hills jurisdiction.



The Wilshire/La Brea Station box will be located under the center of Wilshire Boulevard in between Detroit Street and Orange Drive. A double crossover will be located east of the station box. The station entrance will be on the northwest corner of Wilshire Boulevard and La Brea Avenue.



The Wilshire/Fairfax Station box will be located under the center of Wilshire Boulevard west of Fairfax Avenue to west of Ogden Drive. The station entrance will be on the southeast corner of Wilshire Boulevard and Orange Grove Avenue.

The Wilshire/La Cienega Station box will be located under the center of Wilshire Boulevard immediately east of La Cienega Boulevard. A double crossover will be located east of the station box. The station entrance will be on the northeast corner of Wilshire Boulevard and La Cienega Boulevard. Since the station will be the terminus station for Section 1, tail tracks will be located west of the station box.

### **Major Procurements**

#### Contract C1034 – Wilshire/Fairfax Exploratory Shaft

Metro constructed an exploratory shaft to observe ground conditions prior to the award of Contract C1045. The location of the exploratory shaft was adjacent to the future Wilshire/Fairfax Station. The construction of the shaft included furnishing and installing monitoring instruments, ventilation, and record and report instrumentation data during the excavation of the shaft. After construction of the shaft, the shaft was maintained for an observation period. Afterwards, the shaft was dismantled, and the site backfilled in a condition acceptable to the property owner. The contract was substantially completed on October 31, 2014.

#### Contract C1048 – Wilshire/La Brea Advanced Utility Relocations

The work scope of this contract included the relocation of existing LADWP power, water utilities and a sewer line within the construction limits of the Wilshire/La Brea Station. The contractor was responsible for working in streets, procuring materials, and coordinating with the utility owner. The contractor constructed the new facilities in accordance with the utility plans and specifications, provided traffic control, restored streets, and supported utility crews installing cabling and during cut-over of the existing utilities. The contract was substantially completed on October 27, 2014.

#### Contract C1055 – Wilshire/Fairfax Advanced Utility Relocations

The work scope of this contract included the relocation of existing LADWP power and water utilities within the construction limits of the Wilshire/Fairfax Station. The contractor was responsible for working in streets, procuring materials, and coordinating with the utility owner. The contractor constructed the new facilities in accordance with utility plans and specifications, provided traffic control, restored streets, and supported utility crews installing cabling and during cut-over of the existing utilities. The contract was substantially completed on October 7, 2015.

#### Contract C1056 – Wilshire/La Cienega Advanced Utility Relocations

The work scope of this contract included the relocation of existing City of Beverly Hills water, storm drain and sewer utilities within the construction limits of the Wilshire/La

Cienega Station. The contractor was responsible for working in streets, procuring materials, and coordinating with the utility owner. The contractor constructed the new facilities in accordance with utility plans and specifications, provided traffic control, restored streets, and supported utility crews during cut-over of the existing utilities. The contract was substantially completed on August 5, 2016.

Contract C1045 – Tunnels, Stations, Trackwork, Systems and Systems Integration Testing

The procurement of this contract utilizes a two-step approach with the submittal of qualification statements through a Request for Qualification (RFQ) process, prequalification of qualified proposers followed by the release of a Request for Proposals (RFP) soliciting technical and price proposals with an option at Metro's discretion for Best and Final Offers (BAFO).

The Design/Build contract provides for final design and construction of the infrastructure along the 3.92-mile alignment. Contract scope includes demolition and removal of structures and clearing sites to facilitate construction operations. The structures to be constructed include twin bored tunnels, complete with cross-passages and walkways, including all mechanical, electrical and finish work. A retrieval shaft will be constructed to the west of the existing Wilshire/Western Station for extraction of the tunnel boring machines. Three underground stations are to be constructed, two with double-crossovers, and the terminus station to include tail tracks. Each station has a single entrance plaza with stairs, escalators and elevators which meet ADA requirements. The scope of work includes all architectural finishes, mechanical, electrical, systems and equipment including train control, traction power, communications, trackwork and the system tie-in to the existing Metro Purple Line, testing and commissioning.

Contract C1078 – Division 20 Maintenance-of-Way and Non-Revenue Vehicle Building Location 64

The Design/Build contract provided for the final design and construction of a new Maintenance-Of-Way (MOW) stores and Non-Revenue Vehicle (NRV) building at the south end of the existing Division 20 Yard (Location 64). The displacement of the former MOW stores building and NRV facility are due to the future turn-back facility site in the yard. The contract was substantially completed on May 1, 2019.

Metro Furnished Equipment

Metro has procured a contract to provide 34 Heavy Rail Vehicles (HRV) necessary to operate the extension to the Purple Line. An additional contract will be procured for the Universal Fare System (UFS). The scope of the HRV contract includes design, manufacturing, testing and delivery of the vehicles. The scope of the UFS contract will include design, fabrication and installation of equipment at the three stations and system testing.

## **Program Management**

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

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

The Original Budget of \$3.2 billion reflects the Board approved Life of Project Budget, July 24, 2014, plus Finance Charges of \$0.4 billion. The Current Budget and Current Forecast remains the same this period at \$3.2 billion. A detailed Life of Project Budget forecast is included under the Budget and Cost Forecast Section of this report.

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

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

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

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

Start Up: The commencement of pre-revenue operations will be determined by Metro. Generally, all systems integration testing will have been completed and passed. All testing will be required to include and pass a “stress test” of maximum operational service levels to be acceptable. Pre-Revenue Operations include train runs, especially those involving multiple trains, on the integrated and fully operational extension; rehearsal of expected revenue operations scenarios; as well as abnormal and emergency scenarios in which random combinations of system interactions are tested; equipment “burned-in”; and training of Metro personnel who will eventually operate and maintain the extension and for emergency services personnel. Activities occurring during Pre-Revenue Operations are carried out by a designated Metro Project Rail Activation Group.

## EXECUTIVE SUMMARY

*In May 2020, the Project achieved 61.8% completion based on earned value measurements for design and construction. The critical path of the project remains Reach One (Wilshire/La Brea Station to Wilshire/Western Shaft) cross passage construction. The latest contractor's schedule shows completion of Reach One (1) cross passages in the fall of 2020. The C1045 Design/Build Contract is anticipated to complete by June 15, 2023. Contract completion date and the forecast Revenue Service Date (RSD) for the Project remain on target for 2023.*

### Design Status

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

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

### Construction Status

*TBM #1 (Soyeon) arrived at Wilshire/Fairfax Station on May 21, 2020, marking the completion of Reach Two (2) (Wilshire/La Brea Station to Wilshire/Fairfax Station) tunnel mining. Reach Three (3) (Wilshire/Fairfax Station to Wilshire/La Cienega) tunnel mining commenced on May 21, 2020 with the launch of TBM #2 (Elsie). To date, excavation for four (4) out of 12 Reach One (1) cross passages has been completed. Concrete placement on Reach One (1) cross passages is scheduled to commence in June 2020.*

*At Wilshire/La Brea Station, concourse concrete placements for Blocks 8, 9 and 13 were completed on May 27 and May 28, 2020. The next roof placement is scheduled for June 13, 2020. Roof appendage structure work at the Wilshire/Orange intersection is scheduled to commence in September 2020.*

*At Wilshire/Fairfax Station, excavation and SOE installation at the future station entrance is anticipated to complete in June 2020, followed by subgrade acceptance and mud mat placements. Work on interior walls/concourse will commence after TBMs are launched for Reach 3 tunnel mining.*

*At Wilshire/La Cienega Station, exterior (Level 1) wall concrete placement is scheduled to complete in June 2020. Concrete placement for the 2nd lift walls (Blocks 3-6) is scheduled to be placed in July 2020. TBM #2 (Elsie) arrival is anticipated in August 2020. TBM #1 (Soyeon) arrival is anticipated in September/October 2020. Daily maintenance of dewatering wells continues, along with maintenance of surface aesthetics per the City of Beverly Hills (COBH) Memorandum of Agreement (MOA).*

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

*The C1045 design/build contractor has taken possession of the rail site at the Division 20 Rail Yard. The rail welding subcontractor is scheduled to mobilize at the end of June 2020.*

**Cost and Schedule Summary**

*For the C1045 Design/Build contract, Metro has received May 2020’s schedule update, which reports the substantial completion date finishing 188 calendar days after the June 15, 2023 contractual date. The current monthly schedule update, which continues to be maintained during the schedule re-planning effort, contains the original construction approach for completing the Project. As a result, there are outdated logic ties in the current schedule that are contributing to some of the negative float values being reported.*

Based on the re-sequenced schedule that is currently being finalized, new target dates for key interim milestones have been established. Mitigation efforts along with other planned remedial actions for follow-on construction activities continue to be implemented. It is anticipated that the contractual completion date will be achieved.

The critical path of the project continues to run through Reach One (Wilshire/La Brea Station to Wilshire/Western Shaft) cross passage construction, tunnel concrete/MEP and trackwork installation along Reach One, followed by systems, testing and pre-revenue operations. A summary graphic of the critical path is found on Page 14.

Long range schedule planning for the second half of the Project through substantial completion of C1045 is being finalized. The immediate goal is to incorporate the current construction approach into the monthly schedule update for the following remaining components of work:

- Phasing between TBM mining, cross passages, tunnel concrete, tunnel/cross passage MEP and track (rail); and follow-on milestones for systems (wayside) access.
- Scope of work/sequence associated with station concrete.
- Detail MEP schedule for all three stations, including permanent power and systems integrated testing.
- Detail appendage schedule for all three stations.
- Early systems/tie-in at Wilshire/Western Station.

As this long-range plan is being finalized, potential schedule impacts continue to be identified and assessed. Elements of this plan are already in progress. *A pre-final copy of the re-sequenced schedule has been received and is under review by Metro.* It is anticipated that this plan will be incorporated into the project schedule by the second quarter of 2020.

**C1045 Design-Build Contract Schedule Metrics**

	<b>Original Contract Date/Duration</b>	<b>Time Extension (CD)</b>	<b>Current Contract Schedule</b>	<b>Forecast (Metro PMS)</b>	<b>Variance CD (Trending)</b>
NTP	01/12/2015				
Substantial Completion	06/9/23	6	12/20/23	06/15/23	-188 days

Differing site conditions and third-party requirements are impacting the project budget. Cost forecasts and contingency values are currently being reviewed to assess the impacts. To date, the Current Budget and Current Forecast remains the same this period at \$3.2 billion. There are no claims on the Project. Detailed cost and budget information is provided on Page 17.

**Key Management Concerns**

No concerns to report at this time.



Project Construction Photos



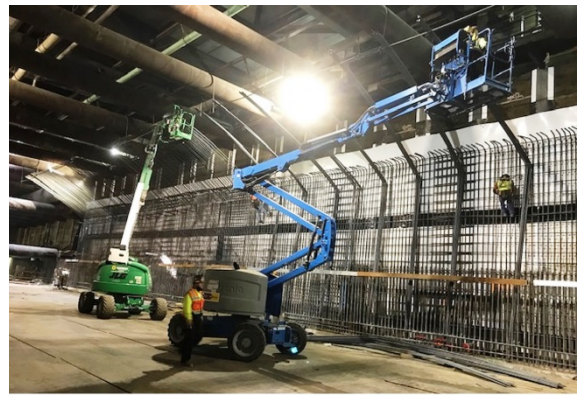
Existing Knockout Panel at Western Interface Chamber



Finished Roof Concrete at Wilshire/La Brea Station



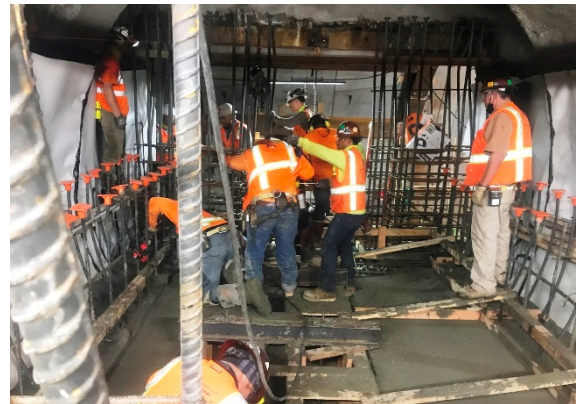
Red TBM at Wilshire/Fairfax Station



2<sup>nd</sup> Lift Rebar Installation at Wilshire/La Cienega Station



Purple TBM Mining Westward from Wilshire/Fairfax Station



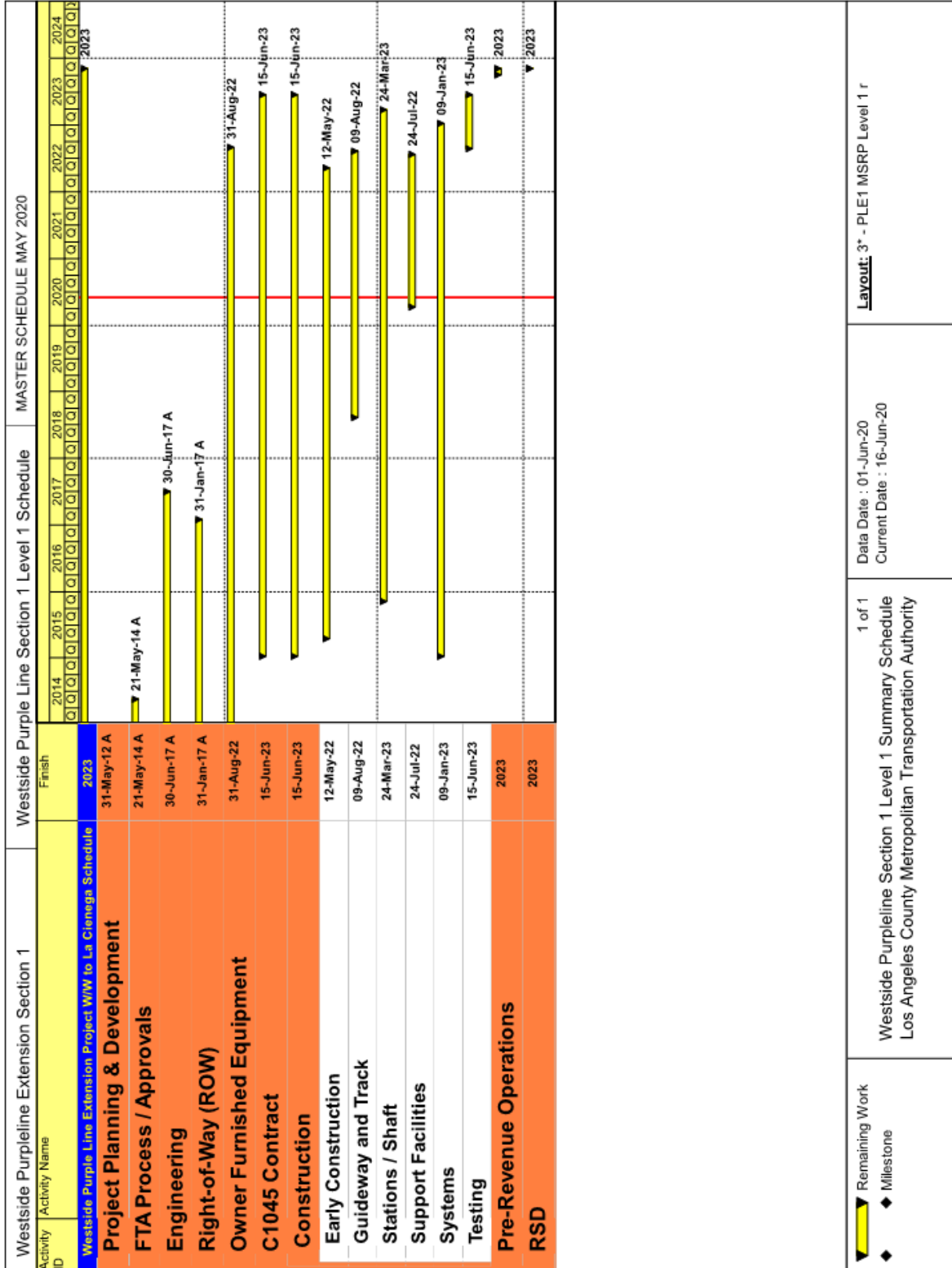
Cross Passage #11 Invert Concrete Placement



# PROJECT STATUS

## PROJECT SCHEDULE

### Project Summary Schedule

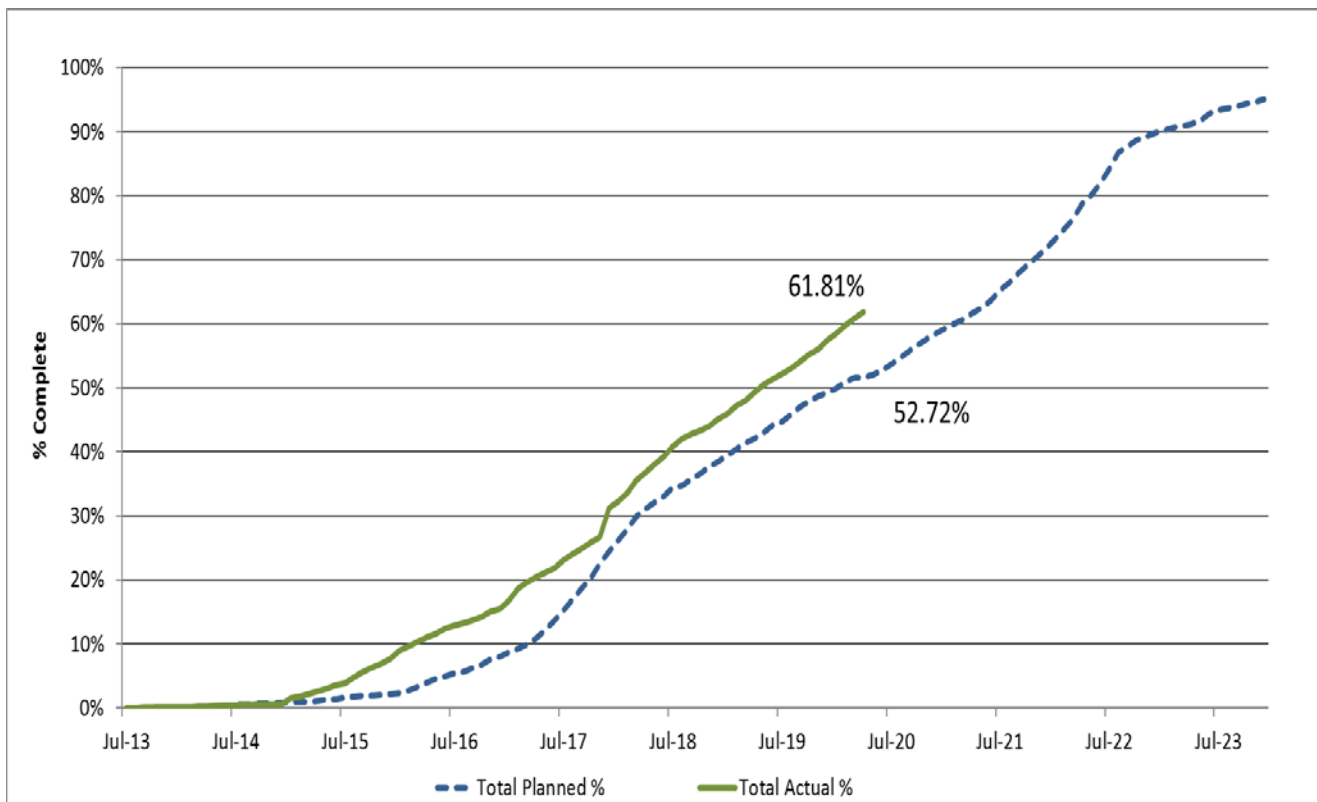


**Progress Summary**













	Status	Change from Last Period	Comment
Forecast Revenue Service	2023		
TIFIA Revenue Service	10/31/2024	None	
FFGA Revenue Service	10/31/2024	None	
<b>Final Design Progress:</b>			
Contract C1045	100.0%	0.0%	
Contract C1078	100.0%	0.0%	
<b>Construction Contracts Progress:</b>			
Contract C1048	100.0%	0.0%	Completed on Schedule
Contract C1045	59.0%	1.1%	
Contract C1055	100.0%	0.0%	Completed on Schedule
Contract C1056	100.0%	0.0%	Completed on Schedule
Contract C1078	99.9%	0.0%	Punchlist/Close-out Remain









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

**Planned vs. Actual Progress**



**Key Milestone Six-Month Look Ahead**

	Milestone Date	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20
TBM #1 (Soyeon) Completed Reach #2 Tunnel Drive	05/21/20 A						
TBM #2 (Elsie) Commenced Reach #3 Tunnel Drive	05/29/20 A						
Wilshire/Fairfax: Placement of Entrance Structure Mud Mat	06/09/20						
Reach 1 Cross Passages: Commence Concrete Placement (CP #11)	06/12/20						
Wilshire/La Cienega: Completes 1st Lift Wall Concrete Placement	06/24/20						
TBM #2 (Elsie) Commences Reach #3 Tunnel Drive	07/06/20						
Wilshire/Fairfax: Place North Interior Wall Concrete (GL 7-13)	07/20/20						
Wilshire/La Cienega: Finish 2nd Lift Wall Concrete Placement (GL 3-5)	07/28/20						
Reach 1 Tunnel: Begin Invert Concrete Activities	08/13/20						
Wilshire/Brea: Begin Appendage #1 (Orange) Excavation	09/09/20						
Wilshire/Brea: Begin Appendage #3 (BMW) Excavation	09/14/20						
Wilshire/Fairfax: Begin Concourse Concrete Placement (GL 3-7)	10/02/20						

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

**Major Equipment Delivery**

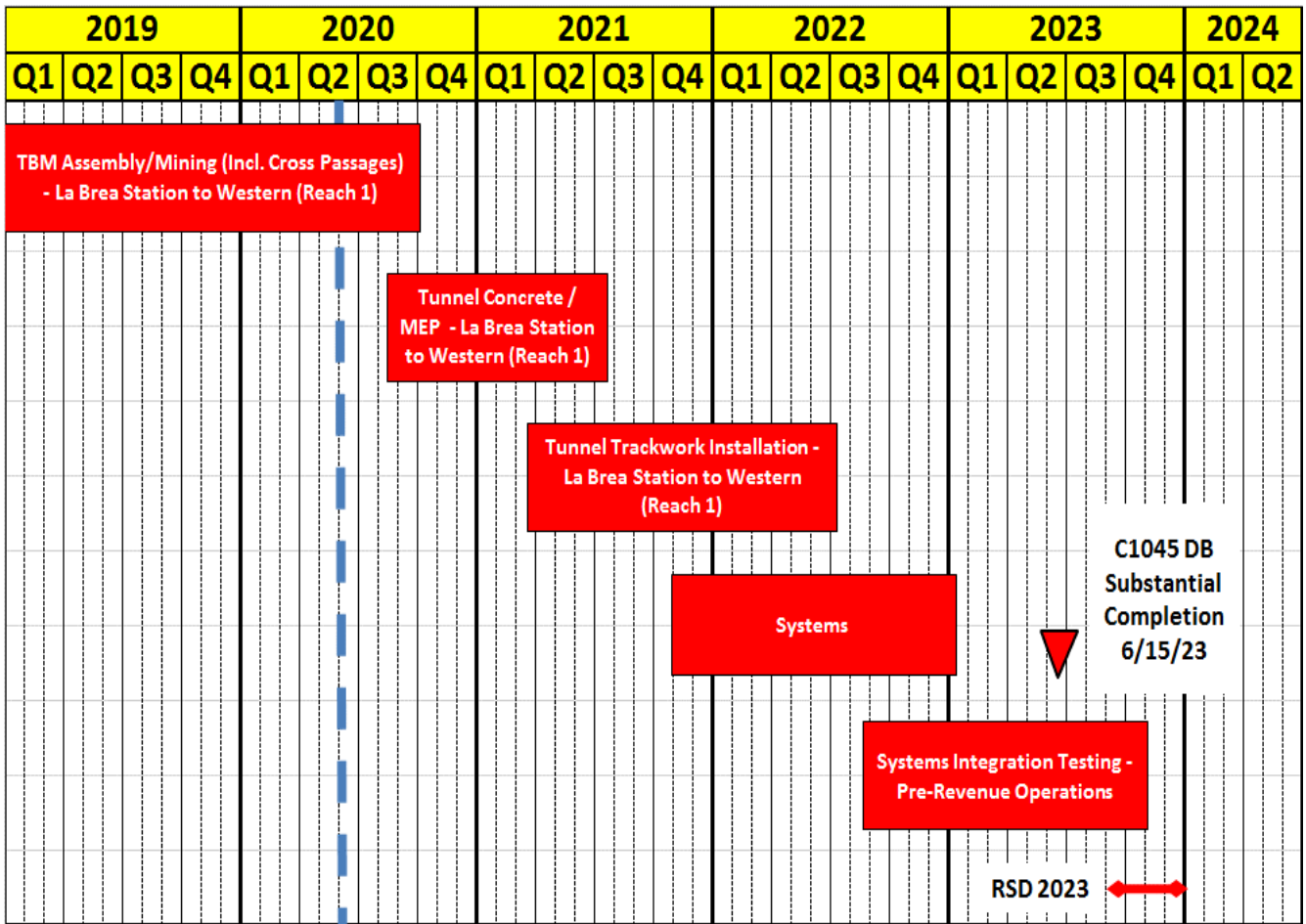
	Submittal	Procurement	Delivery	Installation
<b>C1045 DESIGN/BUILD*</b>				
Tunnel Boring Machine	1/29/16A	8/14/2017A	12/15/17A	7/13/18A
Emergency Ventilation Fans	11/30/18A	4/1/19A	12/18/20	12/29/20
Station Elevators	4/27/18A	4/27/18A	5/3/21	11/1/22
Station Escalators	4/27/18A	8/4/20	7/2/21	4/7/22
Track - Running Rail	7/09/19A	8/09/19A	4/9/20A	3/31/21
Traction Power Equipment	7/15/20	1/7/21	7/12/21	7/13/21
Automatic Train Control	4/1/16A	7/1/16A	12/20/16A	11/15/21
SCADA RTU System	2/2/17A	1/16/18A	5/18/18A	11/9/20
Radio System	2/2/17A	2/03/20A	8/25/20	2/8/21
<b>Heavy Rail Vehicles***</b>	7/16/15A	5/1/19A	8/31/22	1/9/23
<b>Universal Fare System**</b>	TBD	TBD	TBD	7/13/21

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

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

\*\*\* Metro supplied equipment

Project Critical Path



For the month of May 2019, the critical path of the project remains Reach One (Wilshire/La Brea Station to Wilshire/Western Shaft) cross passage construction.

On November 6, 2019, Reach One (1) cross passage construction commenced. To date, excavation for 4 out of 12 cross passages has been completed. HDPE and rebar installation move forward. Concrete placement is scheduled to commence in June 2020. The latest contractor's schedule shows completion of Reach One (1) cross passages in the fall of 2020.

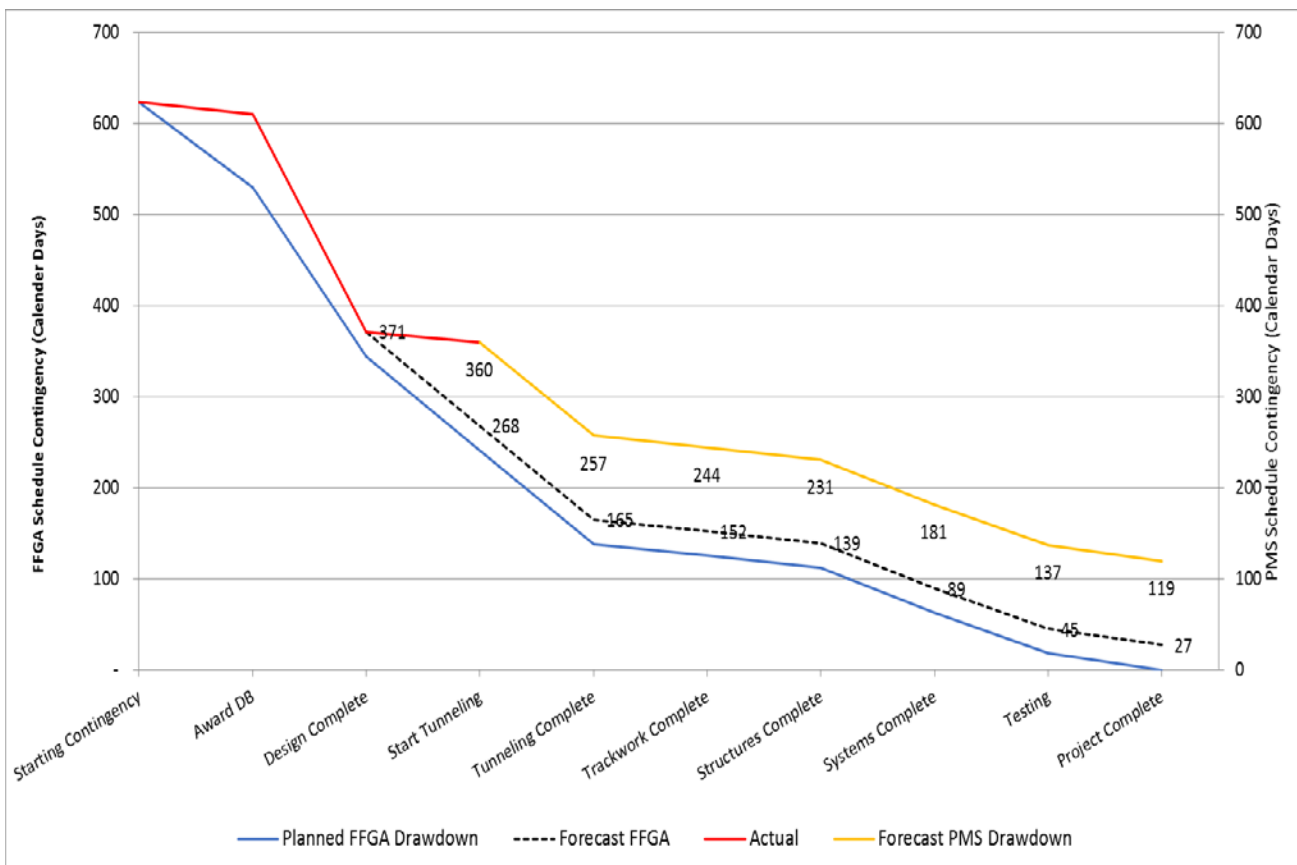
The Revenue Service Date remains in 2023.

**Project Schedule Contingency Drawdown Analysis**

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

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

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



**Risk Management Narrative**

**Summary of Risks**

The WPLE Section 1 Project Risk Register has been updated through April 2020. Within this quarterly reporting period there was one (1) new risk identified and no risks were closed. A total of thirty-six (36) risks remain to be managed in the next reporting period.

Of the thirty-six (36) risks, seven (7) are scored as high, eight (8) as medium and twenty-one (21) as low.

The next WPLE Section 1 Project Risk Register quarterly update is scheduled for July 2020.

**Top Seven (7) Risks**

The table below shows the top seven (7) project risks.

**Top Risks**

Risk ID	Risk Description	Risk Score	Action Items
202.0	Areas with concentrated methane and H2S presence will complicate construction progress and safety, increase price and may cause delays.	20	1. Metro has strict safety requirements in place, which are part of the safety requirements for contractors. Metro will further supplement existing safety requirements based on Geotechnical/Environmental investigations. 2. Additional geotechnical investigations are being performed by the DB contractor (Golder & Associates). Supplemental reports/findings to follow. 3. The Gas Task Force has been reassembled.
678 (NEW)	COVID-19 Pandemic Impact	20	1) Evaluate state and local government guidelines 2) Put contingency plans in place.
90.1	Risk of gas incident during construction.	15	1. Monitoring for gas during construction. 2. Taskforce formed to develop work plan for stations. 3. Metro have strict safety requirements in place which will be part of the safety requirements for contractors. Metro will further supplement existing safety requirements based on geotechnical investigations/Environmental investigations.
633.0	Cost of ROW acquisitions exceeds the FFGA SCC Line Item.	15	1. Metro's Life of Project Budget includes contingency that covers the increase. The Risk Score will remain as "high" until the \$3.15 billion Life of Project Budget is reconciled with the \$2.82 billion FFGA Budget. 2. FTA has approved the property sale. Escrow on the Gale property has closed. Proceeds from the sale have been reflected in FIS (Financial Information System). 3. Project cost reconciliation with Real Estate is nearly complete. One parcel at Wilshire/Fairfax remains in the condemnation phase. 4. The cost reconciliation effort is complete.
675.0	DBE Participation Goal for Construction. Currently targeted at 17%.	13	1. DB Contractor making good faith efforts to meet DBE goals.
676.0	Subcontractor ability to get the required resources to perform work.	13	1. Actively manage schedule and resource needs.
677.0	Resource (Labor) shortage (Direct and Indirect).	13	1. Actively manage schedule and resource needs.

**PROJECT COST**

**Project Cost Analysis – 865518**

DOLLARS IN THOUSANDS

SCC CODE	DESCRIPTION	ORIGINAL BUDGET	CURRENT BUDGET		COMMITMENTS		EXPENDITURES		CURRENT FORECAST		CURRENT BUDGET / FORECAST VARIANCE
			PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
10	GUIDEWAY & TRACK ELEMENTS	388,294	-	388,294	349	401,272	4,643	244,314	349	401,272	12,979
20	STATIONS, STOPS, TERMINALS, INTERMODAL	440,621	-	440,621	4,917	535,138	12,827	310,215	4,917	535,138	94,518
30	SUPPORT FACILITIES: YARDS, SHOPS, ADMIN. BLDGS	43,323	-	43,323	65	45,702	374	45,698	(18)	44,747	1,423
40	SITWORK & SPECIAL CONDITIONS	751,566	-	754,491	18	788,067	3,998	611,595	(871)	798,754	44,264
50	SYSTEMS	113,574	-	113,574	-	101,590	79	31,831	(806)	114,987	1,412
<b>CONSTRUCTION SUBTOTAL (10-50)</b>		<b>1,737,378</b>	<b>-</b>	<b>1,740,303</b>	<b>5,349</b>	<b>1,871,770</b>	<b>21,921</b>	<b>1,243,652</b>	<b>3,571</b>	<b>1,894,899</b>	<b>154,596</b>
60	ROW, LAND, EXISTING IMPROVEMENTS	175,634	-	175,634	-	202,980	527	184,427	-	202,980	27,346
70	VEHICLES	160,196	-	160,196	130	98,248	2,126	21,801	-	108,302	(51,893)
80	PROFESSIONAL SERVICES	412,710	-	414,785	924	438,409	4,587	383,016	427	510,278	95,493
<b>SUBTOTAL (10-80)</b>		<b>2,485,918</b>	<b>-</b>	<b>2,490,918</b>	<b>6,402</b>	<b>2,611,406</b>	<b>29,161</b>	<b>1,832,896</b>	<b>3,998</b>	<b>2,716,459</b>	<b>225,541</b>
90	UNALLOCATED CONTINGENCY	248,592	-	248,592	-	-	-	-	(3,998)	67,456	(181,136)
100	FINANCE CHARGES	375,470	-	375,470	-	-	-	-	-	331,065	(44,405)
<b>TOTAL PROJECTS 465518 &amp; 865518 (10-100)</b>		<b>3,109,980</b>	<b>-</b>	<b>3,114,980</b>	<b>6,402</b>	<b>2,611,406</b>	<b>29,161</b>	<b>1,832,896</b>	<b>-</b>	<b>3,114,980</b>	<b>-</b>
ENVIRONMENTAL/PLANNING - 405518		8,505	-	8,505	-	8,505	-	8,505	-	8,505	-
ENVIRONMENTAL/PLANNING - 465518		30,865	-	30,865	-	30,865	-	30,852	-	30,865	-
<b>TOTAL PROJECTS 405518 &amp; 465518 (ENV / PLAN'G)</b>		<b>39,370</b>	<b>-</b>	<b>39,370</b>	<b>-</b>	<b>39,370</b>	<b>-</b>	<b>39,357</b>	<b>-</b>	<b>39,370</b>	<b>-</b>
<b>TOTAL PROJECTS 405518, 465518 &amp; 865518</b>		<b>3,149,350</b>	<b>-</b>	<b>3,154,350</b>	<b>6,402</b>	<b>2,650,776</b>	<b>29,161</b>	<b>1,872,253</b>	<b>-</b>	<b>3,154,350</b>	<b>-</b>

**Original Budget**

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

**Current Budget**

Differing site conditions and third-party requirements are impacting the project budget. Cost forecasts and contingency values are currently being reviewed to assess the impacts. The Current Budget remains the same this period at \$3.2 billion.

**Current Forecast**

*The Current Forecast remains the same this period at \$3.2 billion. However, the Guideway & Track Elements increased by \$0.3 million, the Stations, Stops, Terminal, Intermodal increased by \$4.9 million, the Sitework & Special Conditions decreased by \$0.9 million, the Systems decreased by \$0.8 million, and the Professional Services increased by \$0.4 million for changes associated with the Design/Build Contract C1045.*

**Commitments**

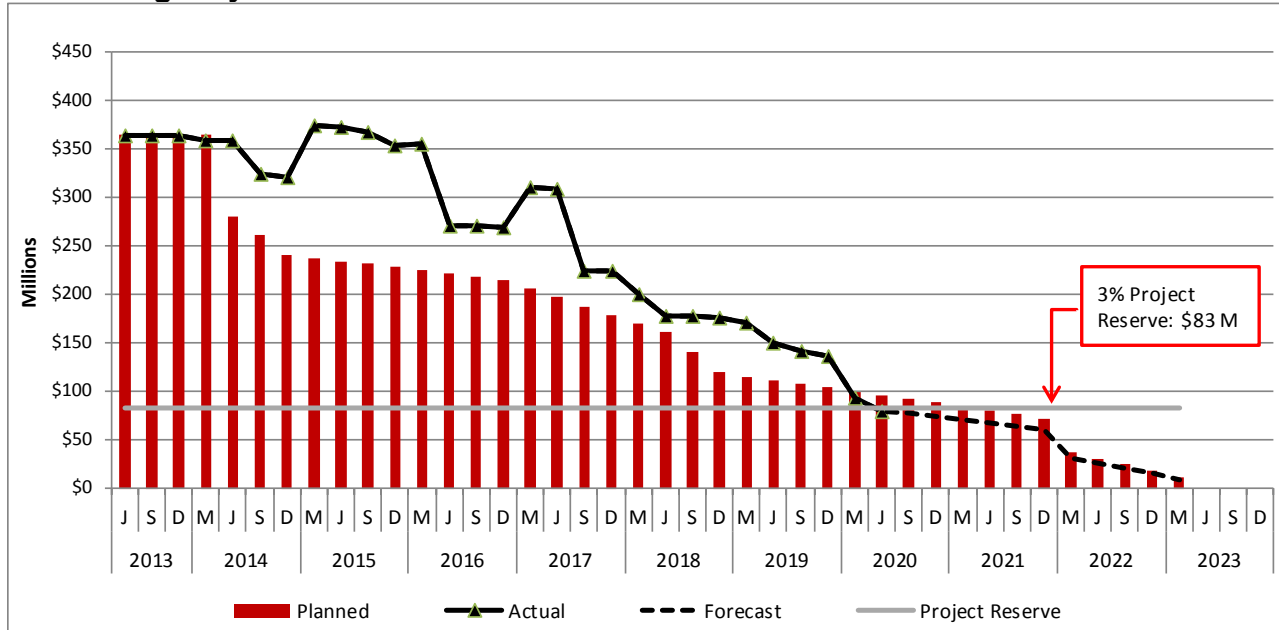
*The Commitments increased by \$6.4 million primarily due to executed Contract Modifications for the Design/Build Contract C1045. The \$2.7 billion in Commitments to date represent 84.0% of the Current Budget.*

**Expenditures**

*The Expenditures increased by \$29.2 million for costs associated with the Design/Build Contracts C1045 & C1078, Real Estate, Heavy Rail Vehicle Procurement, Engineering Management Support Services, Construction Management Support Services, and Metro Project Administration. The \$1.9 billion in Expenditures to date represent 59.4% of the Current Budget.*



**Cost Contingency Drawdown**



**Cost Contingency Drawdown Analysis**

The Original Budget of \$3.2 billion (plus Finance Charges of \$0.4 billion) includes a project cost contingency of \$320.6 million or 10.2% of the total project. The project cost contingency of \$320.6 million is based upon the Life of Project (LOP) Budget that was approved by the Board in July 2014. The LOP Budget also included an allocated contingency amount of \$72.0 million. The allocated contingency is an amount to cover anticipated but unknown contract modifications issued by Metro where applicable to specific contracts within each Standard Cost Category (SCC).

Included in the project cost contingency drawdown is a 3% project reserve threshold. Metro’s Board is to be notified when it becomes necessary to drawdown contingency below the project reserve threshold to cover project costs. This was adopted by the Metro Board of Directors in September 2012. The contingency balance remaining is slightly above the 3% project reserve threshold of \$83.4 million.

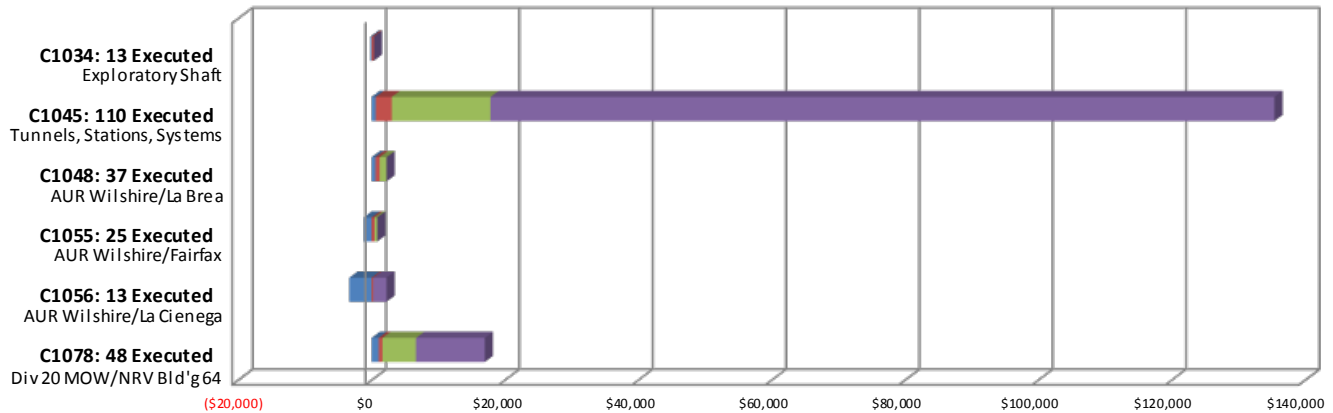
The project cost contingency drawdown curve is based on a 2023 Revenue Service date.

*The allocated contingency decreased this period by \$2.2 million, and the unallocated contingency decreased this period by \$4.0 million due to executed Contract Modifications for the Design/Build Contract C1045.*

PROJECT COST CONTINGENCY DOLLARS IN THOUSANDS					
	Original Contingency (Budget)	Previous Period	Current Period	To-Date	Remaining Contingency (Forecast)
Unallocated Contingency	248,592	(177,138)	(3,998)	(181,136)	67,456
Allocated Contingency	71,963	(57,204)	(2,192)	(59,395)	12,568
<b>Total Contingency</b>	<b>320,555</b>	<b>(234,341)</b>	<b>(6,190)</b>	<b>(240,531)</b>	<b>80,024</b>

**Summary of Contract Modifications**

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



	C1034 13 Executed	C1045 110 Executed	C1048 37 Executed	C1055 25 Executed	C1056 13 Executed	C1078 48 Executed	Total
Under \$100K	(164)	608	574	(1,179)	(3,325)	1,039	(2,446)
\$100K to \$250K	321	2,418	617	436	245	578	4,615
\$250K to \$1M	-	14,798	1,051	391	-	5,034	21,274
Over \$1M	-	117,590	-	-	1,983	10,309	129,882
<b>Total Contract MODs</b>	<b>157</b>	<b>135,414</b>	<b>2,242</b>	<b>(352)</b>	<b>(1,097)</b>	<b>16,960</b>	<b>153,325</b>
<b>Contract Award Amount</b>	<b>6,487</b>	<b>1,636,419</b>	<b>6,181</b>	<b>14,430</b>	<b>20,250</b>	<b>52,830</b>	<b>1,736,597</b>
<b>% of Contract MODs</b>	<b>2.4%</b>	<b>8.3%</b>	<b>36.3%</b>	<b>-2.4%</b>	<b>-5.4%</b>	<b>32.1%</b>	<b>8.8%</b>

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

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

One hundred and ten Contract MODs with a total value of \$135.4 million have been executed since the award of Contract C1045 – Tunnels, Stations, Trackwork, Systems and Systems Integration Testing by Skanska - Traylor - Shea, a Joint Venture.

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

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

Thirteen Contract MODs with a total value of (\$1.1) million have been executed since the award of Contract C1056 – Advanced Utility Relocations at Wilshire/La Cienega by Steve Bubalo Construction Co. The contract has been completed and is closed out.

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

## DISADVANTAGED BUSINESS ENTERPRISE (DBE)

*As of April 2020:*

<b>DBE Goal – Design</b> The percentage of funds apportioned to Design Contracts	20.25%
<b>Current DBE Commitment Design</b> Total DBE Committed Dollars divided by Total Contract Value for Design	\$13.6 M 20.25%
<b>Current DBE Participation</b> Total amount paid to date to DBEs divided by the amount paid to date to Prime	\$12.7 M 19.82%

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

<b>DBE Goal – Construction</b> The percentage of funds apportioned to Construction Contracts	17.00%
<b>Current DBE Commitment Construction</b> Contract commitment divided by current contract value for Construction	\$193.1M 12.08%
<b>Current DBE Participation</b> Total amount paid to date to DBEs divided by the amount paid to date to Prime	\$143.9M 14.37%

*One hundred thirty-six (136) Construction DBE sub-contractors have been identified to date.*

## PROJECT LABOR AGREEMENTS (PLA)

*As of April 2020:*

<b>Targeted Worker Goal</b> Construction work to be performed by residents from Economically Disadvantaged Areas in the United States	40.00%
<b>Targeted Worker Current Attainment</b>	62.01%
<b>Apprentice Worker Goal</b> Construction work to be performed by Apprentices	20.00%
<b>Apprentice Worker Current Attainment</b>	18.92%
<b>Disadvantaged Worker Goal</b> Construction work to be performed by disadvantaged workers	10.00%
<b>Disadvantaged Worker Current Attainment</b>	12.33%

## FINANCIAL/GRANT

### Status of Funds by Source

DOLLARS IN MILLIONS

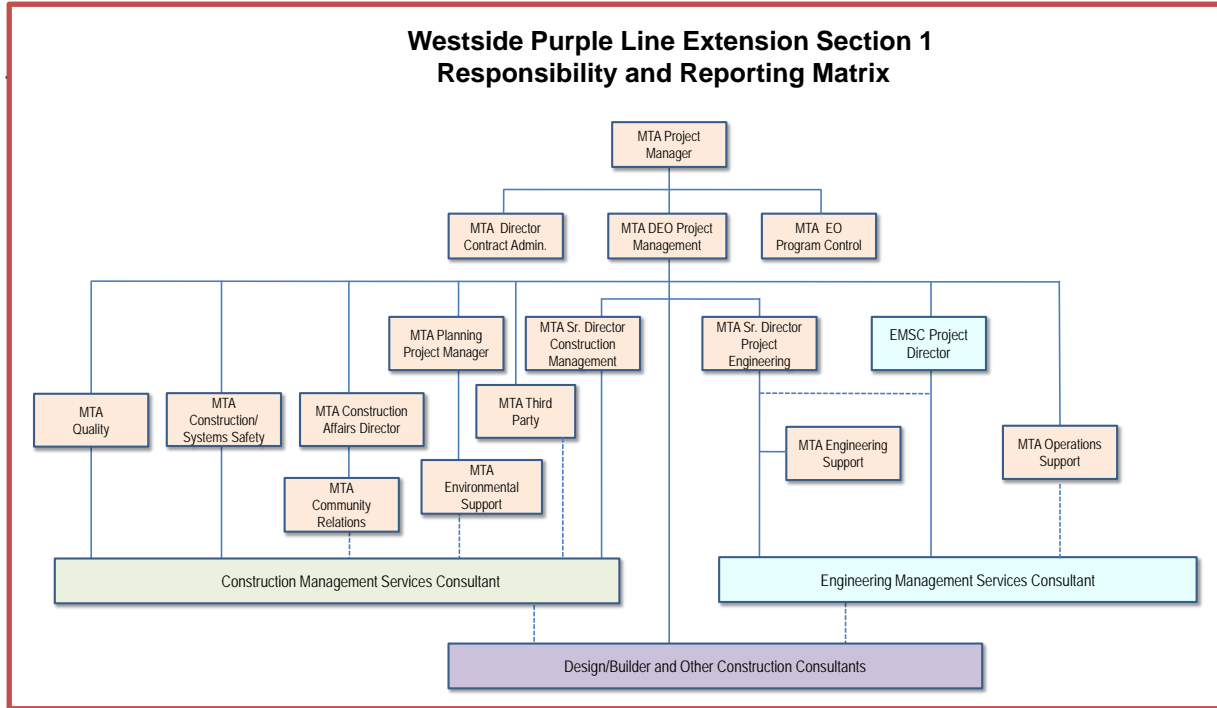
SOURCE	(A)	(B)	(C)	(D)	(D/B)	(E)	(E/B)	(F)	(F/B)
	ORIGINAL BUDGET	TOTAL FUNDS ANTICIPATED	TOTAL FUNDS AVAILABLE	COMMITMENTS \$	%	EXPENDITURES \$	%	BILLED TO FUNDING SOURCE \$	%
FEDERAL - SECTION 5309 NEW STARTS	\$1,250.000	\$1,250.000	\$565.000	\$1,250.000	100%	\$543.927	44%	\$543.927	44%
FEDERAL CMAQ	\$12.171	\$12.171	\$12.171	\$12.171	100%	\$12.171	100%	\$12.171	100%
FEDERAL SECTION 5339 - ALTERNATIVES ANALYSIS	\$0.512	\$0.512	\$0.512	\$0.512	100%	\$0.512	100%	\$0.512	100%
MEASURE R - TIFIA LOAN	\$856.000	\$856.000	\$749.306	\$749.306	88%	\$749.306	88%	\$749.306	88%
MEASURE R 35%	\$869.178	\$874.178	\$700.000	\$551.281	63%	\$478.831	55%	\$476.169	54%
STATE STIP RIP	\$2.568	\$2.568	\$2.568	\$2.568	100%	\$2.568	100%	\$2.568	100%
STATE CAPITAL PROJECT LOANS - OTHERS *	\$83.648	\$83.648	\$83.648	\$83.648	100%	\$83.648	100%	\$50.898	61%
CITY OF LOS ANGELES	\$75.273	\$75.273	\$1.290	\$1.290	2%	\$1.290	2%	\$1.290	2%
<b>TOTAL</b>	<b>\$3,149.350</b>	<b>\$3,154.350</b>	<b>\$2,114.495</b>	<b>\$2,650.776</b>	<b>84.0%</b>	<b>\$1,872.253</b>	<b>59.4%</b>	<b>\$1,836.841</b>	<b>58.2%</b>

EXPENDITURES ARE CUMULATIVE THROUGH MAY 31, 2020  
 ORIGINAL BUDGET BASED ON JULY 2014 BOARD APPROVED LOP BUDGET

\* OTHERS INCLUDE TDA ADMINISTRATION (\$4.1M), LTF GENERAL REVENUES (\$1.8M), AND LEASE REVENUES (\$37.8M)

## PROJECT ORGANIZATION AND STAFFING

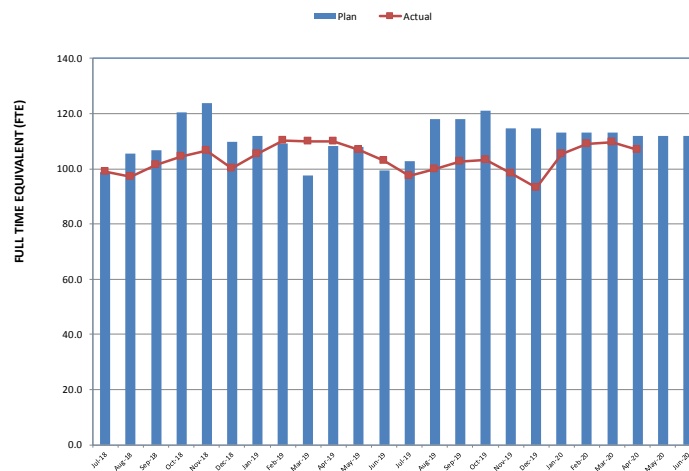
The design-build contract is being managed by a joint team of Metro and consultant personnel jointly located at the Integrated Project Management Office (IPMO).



The overall FY20 Total Staffing Plan averages 113.1 FTEs per month.

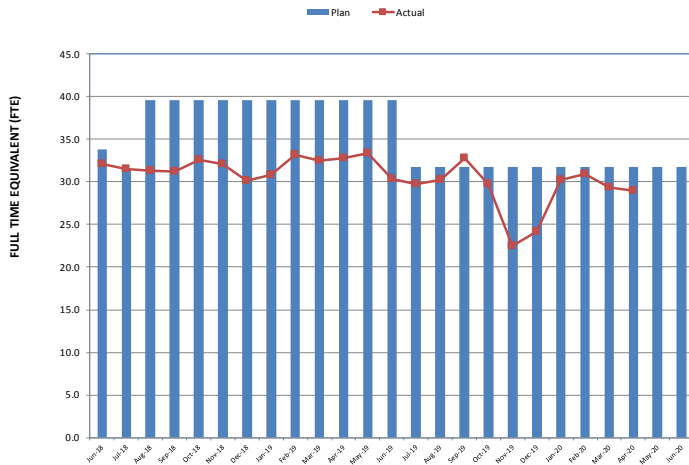
For April 2020, there were a total of 28.9 FTEs for MTA's Project Administration Staff and 77.9 FTEs for Consulting Staff. The total project staffing for April 2020 was 106.8\* FTEs.

### Total Project Staffing – Metro and Consultants

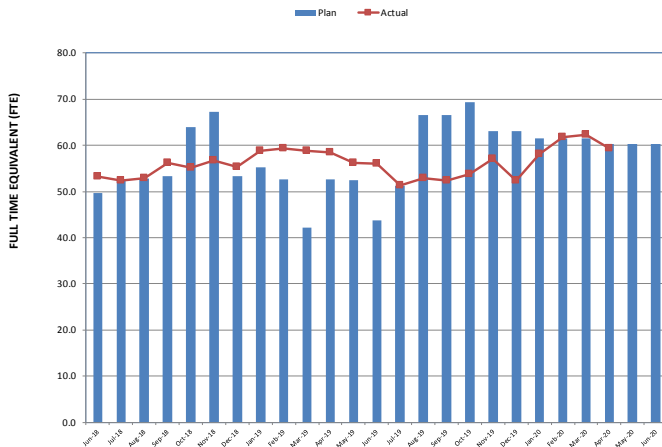


\*Actuals include 5.9FTEs related to Project Management Support Services (PMSS).

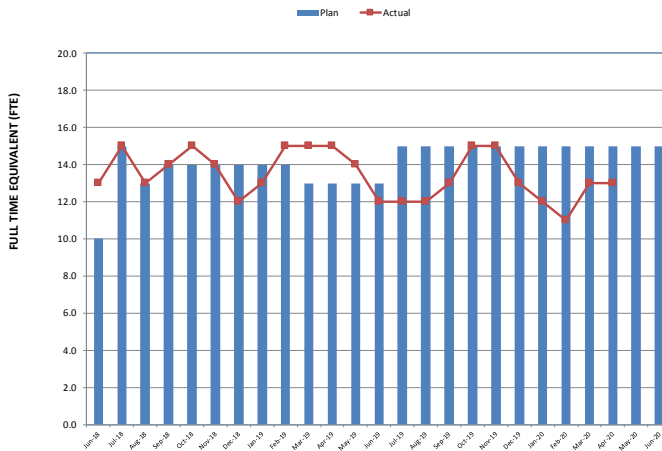
**Metro Staff**



**CM Support Services Staff (Consultant)**



**Engineering Services Staff (Consultant)**



All above data through April 2020

**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

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

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

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



## QUALITY ASSURANCE

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

- Reviewed daily inspection reports from the Contractor/Field Technician and CMSSC oversight inspection personnel. Inspections show that the work is predominately compliant.
- Reviewed and provided comments on quality related submittals construction work plan, project specifications, product data and quality manuals.
- Station quality progress:
  - Wilshire/La Brea – engaged in oversight activities for construction of roof structure and concourse deck.
  - *Wilshire/Fairfax – monitored entrance structure (SOE) excavation, lagging, structural steel shoring members and exterior walls.*
  - Wilshire/La Cienega – engaged in oversight activities for construction of exterior walls (first lift), rebar, concrete placement, HDPE, and mechanical plumbing/piping.
- *Processed 42 surveillances, 21 Quality Action Requests (QARs), 28 Nonconformance Reports (NCRs) and one (1) Corrective Action Request (CAR).*

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

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

## ENVIRONMENTAL

- Conducted field environmental monitoring and spot inspections for stormwater BMPs, dust, and cultural resources for C1045 and third party work activities.
- *Project was issued an updated Rule 1166 permit from the South Coast Air Quality Control Board for ongoing excavation of tar sands via tunnels and Wilshire/Fairfax appendages.*
- *Evaluated impacts to sensitive receptors potentially affected by ongoing and future appendage, station entrance and Division 20 construction activities.*
- *Developed a CEQA memo for the proposed extension of existing Orange Grove Avenue closure and submitted for review to City of Los Angeles staff.*

## CONSTRUCTION AND COMMUNITY RELATIONS

- *Held webinars for stakeholders; attended virtual Neighborhood Council meetings, monthly environmental mitigation meetings, held meetings online and made Project presentations at the following: Beverly Hills residents and stakeholders, Elected Officials' Deputies, Construction Community Meetings and various stakeholders.*
- Continued with the "Eat, Shop, Play Spotlight" (ESP) campaign to advertise and promote businesses that participate in ESP Wilshire and Beverly Hills, specific to eateries that remained open for pick-up and delivery during COVID-19 restrictions.
- Continued additional business mitigations including: alternative parking options, business signage, street signs and print ads at no cost to the businesses.
- Corresponded with council district offices regarding construction effects on traffic and shared major stakeholder concerns.
- Updated website, Facebook, Twitter as needed. Published monthly PLE (Purple Line Extension) newsletter to email list. Placed monthly ads in local papers.
- Tours were suspended due to COVID-19.
- *Produced and distributed:*
  - *Fourteen (14) construction work notices for construction activities;*
  - *The La Cienega Monthly Look Ahead (distributed door to door within half mile radius of station construction);*
  - *Weekly construction look-ahead emails to construction stakeholders;*
  - *Weekly look-aheads for Division 20; and*
  - *Monthly look-aheads for the City of Beverly Hills.*

## CREATIVE SERVICES

- Design development for eight (8) artwork locations within the stations.
- Continued design development for Wilshire Customer Center artwork relocation to Wilshire/Western Station.
- Artist procurement underway for concourse glass tile artwork design at Wilshire/La Cienega Station.
- *Preliminary coordination underway with design-builder for fabrication procurement.*

## SAFETY & SECURITY

- *There were no recordable injuries for May 2020.*
- *Metro Safety staff conducted daily safety inspections, attended weekly Tool Box, Progress, readiness review and other project meetings to evaluate contractor's safety program compliance with contract requirements.*
- *STS tunnel machine crews encountered 18 methane alarms in May 2020 in Reach 2 requiring evacuation. Cal OSHA investigated each evacuation before authorizing re-entry and restart of mining operations.*
- *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.*
- *April 2020 Contractor Work Hours (Design & Construction): 80,491*
- *Contractor - Project to Date Work Hours (Design & Construction) (through 4/30/20): 3,572,485*
- *Total Project to Date Work Hours (Contractor & the IPO Staff) (through 4/30/20): 4,796,131*
- *Project to Date Recordable Injury Rate: 1.25 (30 Recordable Injuries) (each rate is per 200,000 work hours) (National Rate: 2.5)*
- *Project to Date Total Days Away (DART) Injury Rate: 0.083 (2 Days Away or Lost Time) (each rate is per 7 Days/Time Away from Work Injuries) (National Rate: 1.5)*

## APPENDIX CHRONOLOGY OF EVENTS

June 2007	Began Alternatives Analysis study
January 2009	Board approval of Alternatives Analysis study and next phase
February 2009	Began Draft Environmental Impact Statement / Report (EIS / EIR)
October 2010	Board approval of Draft EIS / EIR and selection of locally preferred alternative
January 2011	FTA approval to enter Preliminary Engineering
May 2011	Began Preliminary Engineering
April 2012	Board certification of Final EIS / EIR and adoption of project
July 2012	Completion of Exploratory Shaft final design
August 2012	FTA Record of Decision
September 2012	Began Real Estate Acquisition
November 2012	Began Final Design - C1048 - Advanced Utility Relocations contract – Wilshire/La Brea
November 2012	Began Final Design - C1055 - Advanced Utility Relocations contract – Wilshire/Fairfax
November 2012	Issued RFQ for C1045 Design / Build contract
December 2012	Began Final Design - C1056 - Advanced Utility Relocations contract – Wilshire/La Cienega
January 2013	Began C1034 Exploratory Shaft construction
February 2013	Received RFQ responses for C1045 Design / Build contract
June 2013	Issued RFP for C1045 Tunnels, Stations, Trackwork, Systems and Systems Integration Testing
June 2013	Beginning of C1055 AUR Wilshire/Fairfax Bid Period
July 2013	Submitted draft FFGA application
July 2013	Completed Final Design - C1048 - Advanced Utility Relocations contract – Wilshire/La Brea

July 2013	Submitted TIFIA loan application
August 2013	Began C1048 Advanced Utility Relocations contract – Wilshire/La Brea
August 2013	NTP for Construction Management Support Services Contract
January 2014	Submitted application to FTA requesting an FFGA
January 2014	Received RFP Proposals for Contract C1045
February 2014	Beginning of C1056 AUR Wilshire/La Cienega Bid Period
May 2014	FTA awarded FFGA
May 2014	Received TIFIA Loan
June 2014	Began C1055 Advanced Utility Relocations at Wilshire/Fairfax
July 2014	Metro Board approved staff recommendation to award Contract C1045 and approved Life-of-Project Budget
September 2014	Issued Invitation to Bid for Contract C1078
October 2014	Issued C1056 Contract Award
November 2014	Issued C1045 Contract Award
January 2015	Issued C1045 Contract Notice to Proceed
January 2015	Issued C1056 Contract Notice to Proceed
February 2015	Received Contract C1078 Bids
August 2015	Issued C1078 Contract Award
September 2015	Issued C1078 Contract Notice to Proceed
October 2015	Contract C1055 achieved Substantial Completion
December 2015	Began piling operations for Wilshire/La Brea Station
June 2016	Began deck beam and decking operations for Wilshire/La Brea Station
August 2016	Began piling operations for Wilshire/Fairfax Station
August 2016	Contract C1056 achieved Substantial Completion
February 2017	Began deck beam and decking operations for Wilshire/Fairfax Station

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

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



