



Metro

October 18, 2023

TO: DISTRIBUTION

FROM: ALBERT SOLIZ, 
DEPUTY EXECUTIVE OFFICER,
PROJECT MANAGER

SUBJECT: DIVISION 20 PORTAL WIDENING
QUARTERLY PROJECT STATUS REPORT
FY24 Q1, SEPTEMBER 2023

Enclosed herewith is the Quarterly Project Status Report for the Division 20 Portal Widening Turnback Project. This report contains the Los Angeles County Metropolitan Transportation Authority's (LACMTA) representation of the Division 20 Portal Widening Turnback Project status for the period ending September 30th, 2023.

If you have any questions regarding this report or its supporting information, please contact Alexander Lampros, Senior Director, Program Control at (213) 407-0978.

Enclosure

Division 20 Portal Widening Turnback Project

QUARTERLY PROJECT STATUS REPORT



September 2023

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PROJECT OVERVIEW

Project Background

Per the project's Full Funding Grant Agreement (FFGA) for Section 1 of the Westside Purple Line Extension (WPLE), Metro is obligated to operate service at four-minute headways on the future Metro Purple Line. As a result of reduced headways, Metro will need to coordinate headways for Purple and Red Lines in the shared trunk portion of the tunnel system from Wilshire Vermont Station through 7th and Metro and Union Station.

Currently, the Metro Red/Purple Line trains "turn-back" at Union Station, reversing direction from east to west. The current minimum headway that can be achieved at Union Station is approximately four-minute service for combined Purple/Redline service (or seven-and-a-half minutes on the branches), but that will become impracticable and less efficient once the Westside Purple Line Extension begins operating and more trains are using the same tracks.



At present, non-revenue Metro Red/Purple Line trains proceed south of Union Station and through the portal just south of the US 101 Freeway before entering a complex set of switches in the Division 20 rail yard. To increase train speeds and ensure the reliability of operations, the existing tunnel portal must be widened to accommodate additional tracks and switches that diverge to become the turnback and yard leads.

The trackwork at the portal will be reconfigured to connect to new storage tracks to the south and west side of the yard. The reconfiguration of the yard will not preclude a potential future revenue station at 6th Street. Construction and pre-revenue testing of the portal widening and turnback facility must be completed before WPLE Section 1 opens for revenue service.

EXECUTIVE SUMMARY

Metro awarded the Division 20 Portal Widening Turnback Facility Contract C1136 on February 25, 2020, and issued Notice to Proceed (NTP) on April 8th, 2020. Contract C1136 is a Design Bid-Build (DBB) contract with a 52-month forecast for construction.

Status through September 2023:

Division 20 Portal Widening Turnback Facility overall project progress is 55%.

Project commitments and expenditures through September 2023 indicate that the current budget does not require increasing contract modification authority for the next reporting period.

The project's current substantial completion forecast is in Spring of 2026, in addition, the project schedule continues to be developed as the project team is working with the contractor to finalize an updated schedule and in coordination with the completion of Westside Purple Line Extension Section 1 (PLE1). The project team continues to work with Tutor Perini to update the schedule, and to review mitigation opportunities in-order to improve the schedule and reduce impacts to the project budget.

Current Quarterly Accomplishments

West Emergency Walkway/Ramp

- Finished walls for Sections 1, 2 and 3.
- Installed Cable Troughs for Sections 1, 2 and 3.
- Installed Trainway Feeder Conduit on Wall Brackets for Sections 1 and 2
- Installed R/I ESOC Conduits Section 1
- Set Embeds for Lighting Poles Section 1 and 2
- Finished Walkway Decks for W Sections 1, 2 and 3

Division 7

- Finished all activities.
Misc Utilities/Finishes - West Side
- Installed Trainway Feeder Conduit on Wall Bracket for Section 1
- Install Trainway Feeder Conduit in Barrier for Section 2
- Set Embeds for Lighting Poles for Section 3

Portal Interlock Bungalow

- F/R/P/C Portal Interlock Bungalow Pad
SD/Drainage
- Excavated, Installed and Backfilled SD lines under Crossings 5, 6, 9
Bridge Deck
- Completed Post-Construction Survey
Division 26
- Procured comm equipment
- Procured Tard Control Systems
- Prepared pavement submittals for review and approval

New TPSS Site

- Installed TP Cables for MS 4 and completed inspections
- Installed Pull Power Cables at Bungalow B and C

CHANGE ORDER WORK COMPLETED

CO # 22 Work – Communication Pull boxes and Yard Tower Room 279 UPS Layout

- Cable Repair from RM 270 to Signal 200 – 3/27/23-4/1/23.

CO # 38 Work – Safety Fence along Metro/Amtrak ROW

- Completed

CO # 47 Work – Install Negative Return Cables

- Completed

Activities Planned for the Next Quarter

- Portal Widening West installation of rebar, concrete pouring of plinths, and new AL track
- Portal Widening West - East Union diamond track Crossover installation
- Portal Widening West - commence train control, traction power cables and wiring
- Portal Widening East - install ductbanks TP-7 and TP-14, lighting and communication ductbanks
- Portal Yard North West - pill and rack power cables, install train control devices and lighting poles
- Complete installment of Northern Storage Track and ballast
- Traction Power Substation continues with LADWP cable pulling, conduct LFAT testing, landing cables on equipment
- Emergency Back Up Power Supply civil site commence fencing, lighting, paving and bollard installation
- South Storage Yard continue wire pulling, ductbank installation of communication and utility ductbanks installation, lighting and commence ballast installation, placement of track, switches and train control devices

Project Scope

The scope of work is composed of several major construction elements, each with its own subset of work components. The major elements are portal widening; First Street Bridge modification & seismic upgrade trackwork; power substation; system installation & integration and not precluding future 6th Street station.

Turnback Facility (3 pocket tracks)

- Mainline Trackwork and Special Trackwork Construction
- Signals and Communication Lines (CCTV, PA, Telephone, Radio, Fire Alarm) and New Duct banks
- Portal Widening (Shoring, Excavations, Soil testing and Soil Disposal)
- Modifications to 1st Street Bridge
- Two Storage Yards (North and South) with Cleaning Platforms
- Demolition of MOW 61A and Viertel's Buildings
- Center Street Improvements
- Surface Parking at Viertel's Tow Yard
- Utility Protection and Relocation
- Drainage
- Yard Perimeter (Retaining Walls, Fences, and gates)
- Access Roads
- TPSS Pads and Connections (Removal of Existing TPSS)
- Yard and Surface Parking Lighting
- Trackwork/Emergency walkway Modifications at East US Double Crossover
- Communications Conduits for Metro Center Project

Project Scope cont'd

- Yard Tower – Control Room Equipment
- System Integration Testing and Start-up

Adjacent Projects Coordination

- Early Demolition Contract
- TPSS Early Procurement Contractor (C1184)
- Pickle Works Building Demolition by City
- Early Construction of Duct banks
- Sixth Street Bridge
- Metro Center Street Project Construction
- Link US
- Purple Line Extension Section 1 – Rail Welding
- Eastside CTS Bus Bridge by Regional Connector
- Demolition of MOW Buildings B&C
- MOW 61A Equipment Relocation, Vacation and Abatement
- Shop Building Expansion
- Metro Rail Car Delivery Program
- Southern California Gas Co.

Project Facts

- Approximately 16 miles of duct banks installation
- Track installation of 28,217 feet of ballasted track and 4,294 feet of direct fixation tracks
- Approximately additional 6 acres added to the Division 20 yard
- Additional storage capacity of 120 train vehicles

Risk and Management Issues Management Issues

1. MOD No.20 (CN006) - *executed*

- Major design changes (e.g., track spacing)
- Work not completed from previous contracts (early utilities)
- Specs and criteria changes/updates
- Responses to bidders' questions
- Completed negotiations with Contractor

2. Long Lead Items

- Contract provisions for long lead items
- Identify Multiple Suppliers
- Weekly meetings with Nortrak
- Shortage of fiber optic cable

3. Modification of Construction Scope within the Yard during Construction

- Modifications to design should be avoided. However, if mitigation is required, timely design changes and review cycles to be implemented
- Alert contractor to upcoming changes to avoid rework and obtaining contractor input to help mitigate time delay caused by RFI process

4. Maintaining Train Operations during Construction

- Develop intricate staging plan with Metro Operations & Maintenance approval
- Allow for single tracking to the yard to expedite construction delivery
- Develop and maintain an O&M plan during construction & a Metro Ops staffing plan
- Close coordination with contractor

5. Install Conduits to Regional Connector to Bus Bridge Start. - *completed* Provide Access to Construction Crew for Installation of Communications Fiber, Overlapping with Regional Connector Activities

- Frequent coordination between both contractors
- Collaborate between Metro and both contractors, a solution for temporary connection

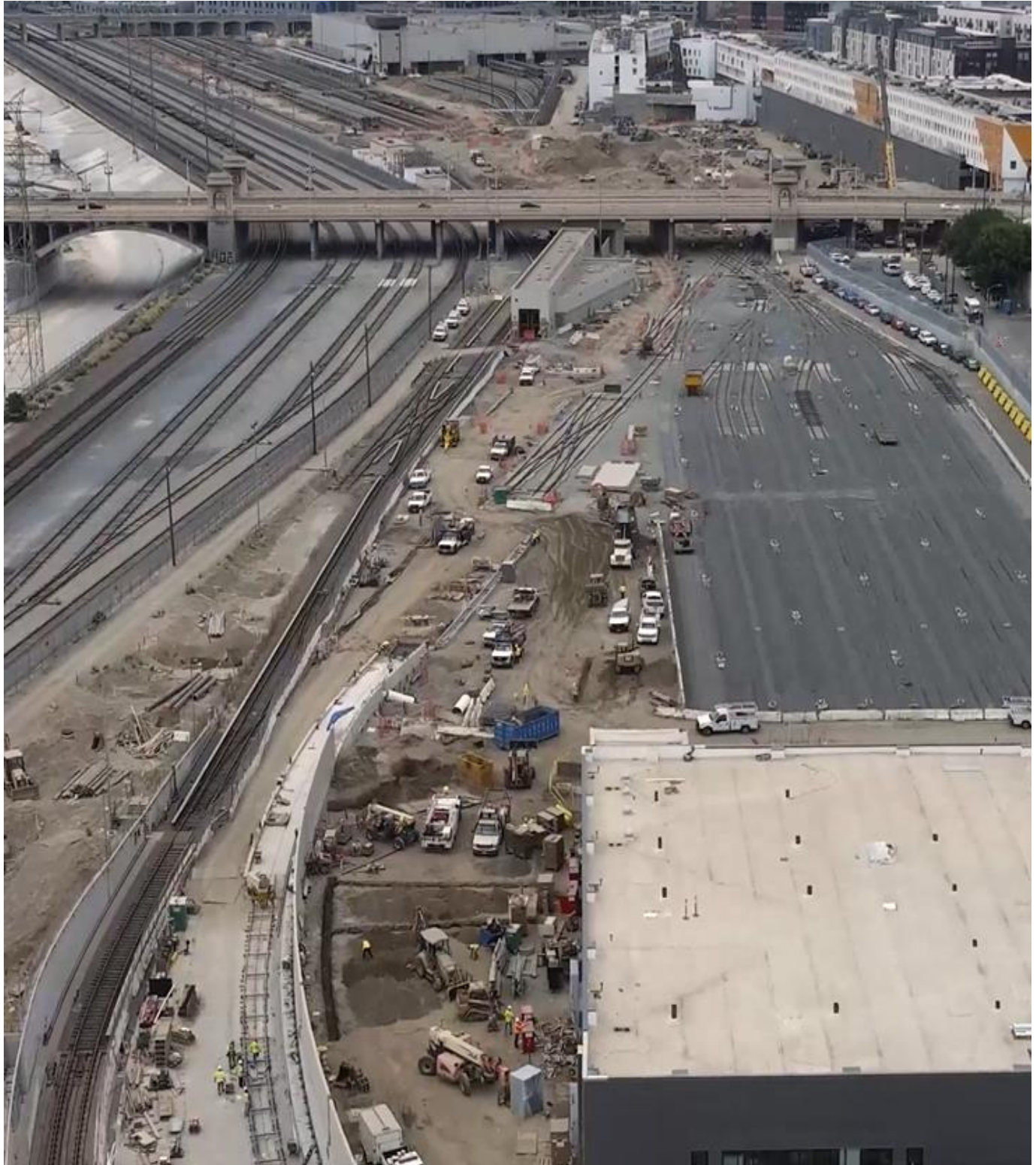
6. Completion of Design /Construction by DWP to Energize New TPSS

- Active and continuous coordination/bi-weekly meetings with DWP

7. Significant number of Contractor questions regarding the design

- Design inconsistencies noted between drawings and details causing contractor to submit multiple RFIs.

Construction Progress Photos
Portal Widening and North Yard facing South Yard
drone ariel view



Construction Progress Photos *cont'd*
Portal West – Walkway and Cable Trough



Construction Progress Photos *cont'd*
Portal West – AL Track Installation



Construction Progress Photos *cont'd*
Portal West –AL Plinths and Track Installation



Construction Progress Photos *cont'd*
South Yard



Construction Progress Photos *cont'd*
Northern Storage Yard – Track Installation



Construction Progress Photos *cont'd*
Northern Storage Yard – Track Installation



Construction Progress Photos *cont'd*
Northern Storage Yard – Track Installation



Construction Progress Photos *cont'd*
Traction Power Substation final 2 sections setting



Construction Progress Photos *cont'd*
Traction Power Substation final 2 sections setting



Construction Progress Photos *cont'd*
Traction Power Substation final 2 sections setting



Construction Progress Photos *cont'd*
Traction Power Substation final 2 sections setting



PROJECT STATUS

SAFETY

C1136 (TPC)

- Ongoing monitoring of construction activities to ensure safety compliance.
- TPC (contractor) reported 870,628 total man hours period ending September 2023 with 325 calendar days without a loss time incident.

C1184 (C3M)

- Participated in meetings, reviewed, and approved submittals, monitored construction activities.
- Conduct safety and security sweeps.
- C3M and their subcontractors continue to report zero incidents period ending September 2023.

PROJECT SCHEDULE

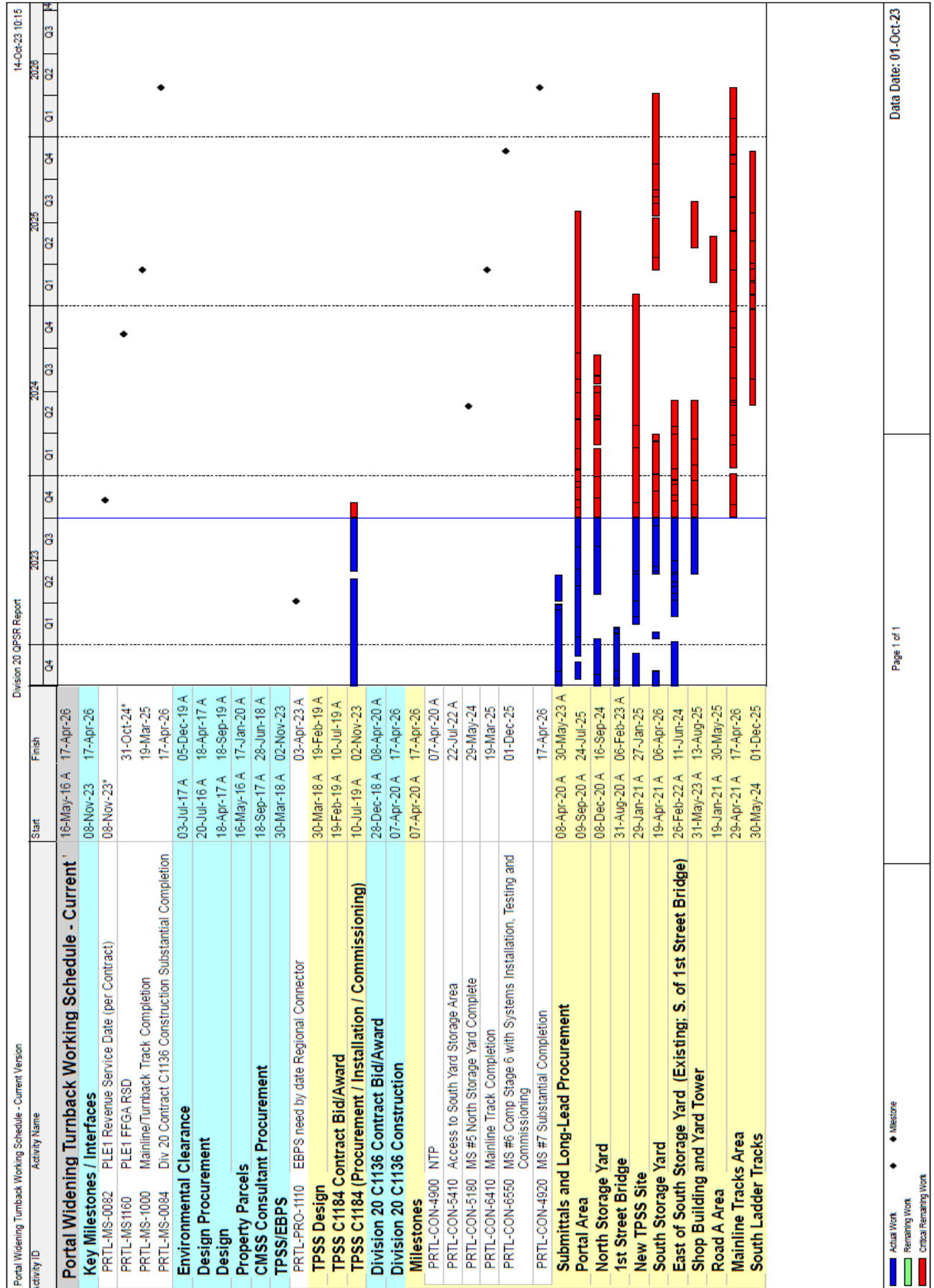
Project Summary Updates

The Notice to Proceed for the main construction contract was issued in April 2020. Construction submittal preparation started right after and is still in progress. Stage 1 construction started with field investigation throughout the Yard, utility relocation and power modifications leading to the start of selective track demolition, under the 1st Street Bridge, to allow the bridge modification work to start. Selective demolition began in October 2020, and was substantially complete in January 2023 with the successful removal of Bents 13 and 16. Bent 16 was removed in August 2022 followed by Bent 13 in January 2023.

The start of Fiscal Year 24 continues with Portal Widening work at the west side section of the Portal. Elevated Emergency Walkway decking has been constructed and poured; installation of cable troughs commences. AL-Track plinths have had rebar installed and concrete poured so tracks can be installed. At the Portal area, along Commercial Street, retaining wall and installation of ornamental fencing are completed and the site is getting prepared to start on the parking lot. North Storage Yard continues with the completion of track installation, final tamping and setting of train control and communications bungalow-C. The Traction Power Substation (TPSS) site continues with the final delivery of the remaining two sections, setting and installation. Cable pulling continues and the start of Local Field Acceptance Testing (LFAT) commences. As a result, Milestone 4 – Completion on Traction Power Cable Installation to TPSS/EPBS Equipment Installation was achieved and completed on August 31, 2023. South Yard Construction continues with communication and lighting ductbank excavation and installation, and site preparation for the installation of track underdrains, sub ballast, tracks, and traction power cables.

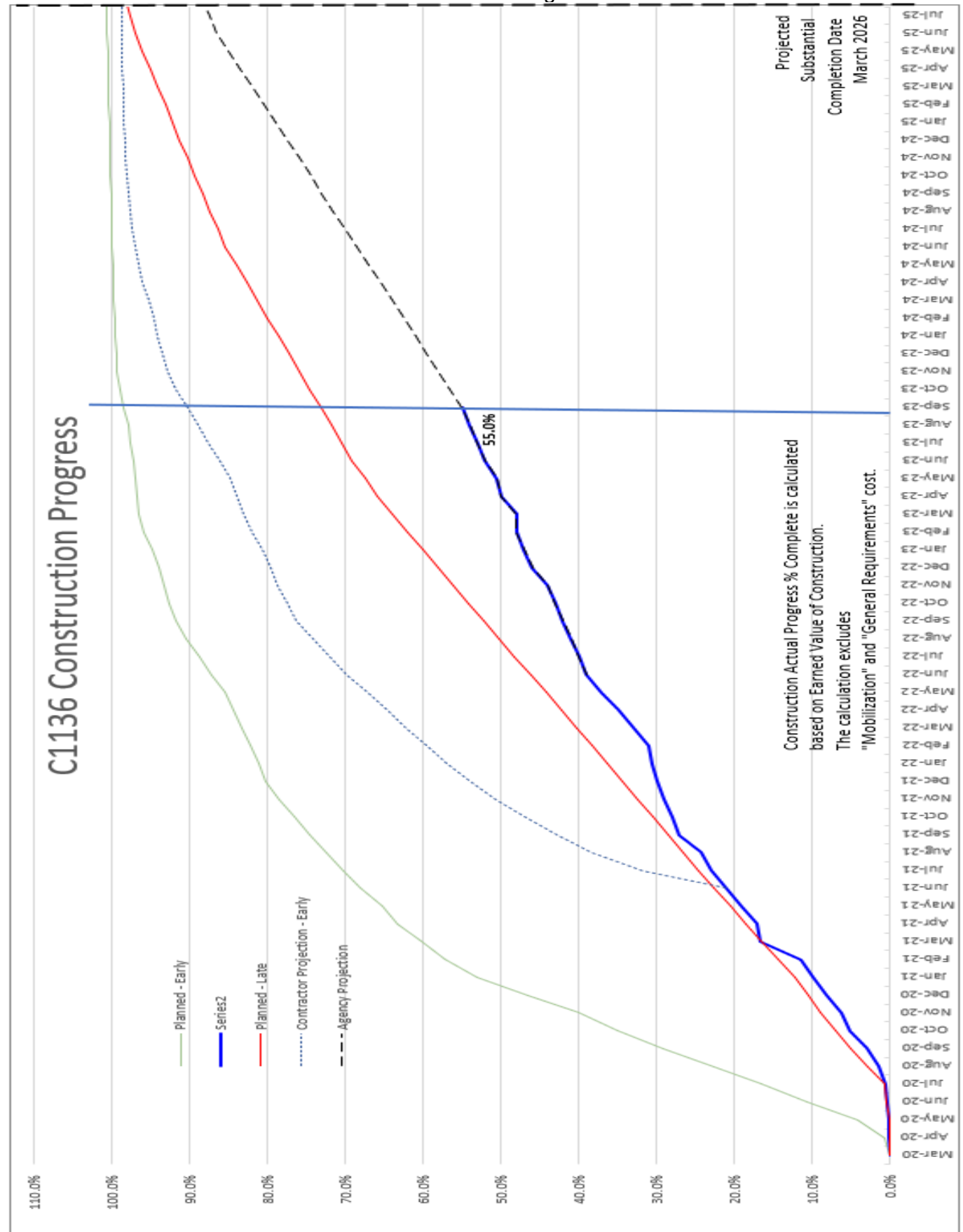
As of FY24 Q1, and in coordination with completion of Westside Purple Line Extension Section 1 (PLE1), the D20 Northern Yard will be accessible for Milestone 6, Mainline Track by Fall 2025. The project team is working with the contractor to finalize an updated schedule as construction progresses and mitigation opportunities to improve the schedule are being reviewed.

Project Summary Schedule



Planned vs. Actual Progress

C1136 Construction Progress



Planned vs. Actual Progress *cont'd*

The actual overall project progress is 52% versus an early planned of 95% (or late planned of 90%) through September 2023. The progress curves represent the physical progress of work performed to complete current contract. The early and late planned % curves are based on the Contractor's schedule dates from the approved baseline schedule.

The physical progress percentage excludes non-construction items such as contractor's construction mobilization costs and all general requirement costs not tied to construction work effort.

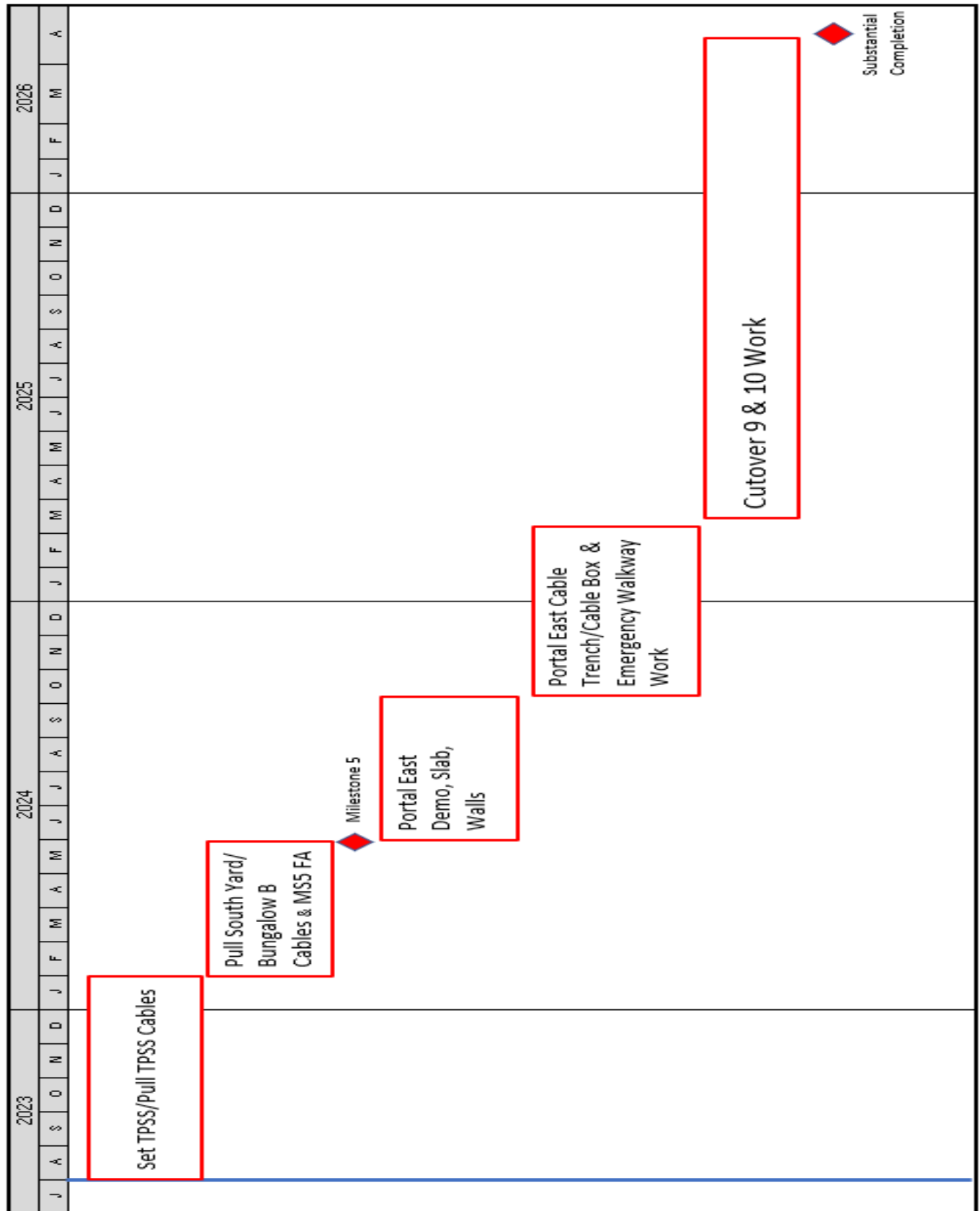
Key Activities and Milestone Six-Month Look Ahead

Milestone Date	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24
C1136 Portal Widening Turnback						
Pull Power Cables - TPSS->TP-10-> MH TP100						
Install North ladder Tracks TRK4 Connections to (E) Yard 3rd Rails						
Pull Power Cables - TPSS->TP-10-> Bungalow B						
Pull Power Cables - TPSS->TP-1->SWA F&G						
Pull TP Cable & Terminate Switch Assemblies A,F,G- South Yard						
Pull TP/Power Cables @ Bungalow B						
C1184 Transfer Power Substation						
TPSS - Local Field Acceptance Testing (LFAT)						
TPSS Commissioning						
EBPS - Local Field Acceptance Testing (LFAT)						
Third Party						
DWP Energization of Switchgear						
DWP Energization of TPSS						

	MTA Staff		MTA Design Consultant		MTA Board Action
	Other Agencies		C1136		New Date
			C1184		

Project Critical Path

The critical path activities are shown in the schedule below.



Risk Management Narrative

Summary of Risks

The risk register was last updated in August 2023 during the first quarter of FY24 from the previous Quarterly July 2023 report. Since then, two (2) risks were closed and two (2) new risks were added. There is a total of thirty four (34) active risks remaining to be managed. Of the thirty four (34) risks six (6) are scored high (11 to 20 rating), fifteen (15) as medium (4 to 10 risk rating), and thirteen (13) as low (less than 3 risk rating).

Top Risks

The table below shows the top five (6) project risks.

Risk ID	Risk Description	Risk Score
1403	Contaminated water may be encountered which is not in the spec.	20
1502	Identification of utilities at the Portal prior to demolition. From TIA4	20
1300	Modification to scope of construction within the yard during construction	14
1402	There are some disconnects in phase plans between different disciplines. Certain activities are dependent upon others to be completed	13
1378	Delays to the contractor due to denied track allocation requests.	12
1283	Maintaining train operations during construction	12

Newly Identified Risks

Two (2) new risk was added to the risk register, and is as follows:

- Risk #1300 – Modification to scope of construction within the yard during construction
- Risk #1283 – Maintaining train operations during construction.

Closed Risks

Two (2) risks were closed in this period, are as follows:

- Risk #1294 – Interface between two contractors (1184 & 1136) for schedule, physical connections, testing, and commissioning could cause schedule delay
- Risk #1446 – Encountering unknown and surprise underground utilities in South Yard

Risk Score Changes

Two (2) risks saw scores changed from red to green this period

- Risk #1294 – Interface between two contractors (1184 & 1136) for schedule, physical connections, testing, and commissioning could cause schedule delay
- Risk #1446 – Encountering unknown and surprise underground utilities in South Yard

Actions in the Next Reporting Cycle

Continuous efforts in Risk Management will be made upon the next workshop to update the register. Next upcoming Risk Workshop in development.

PROJECT COST

Project Cost Analysis

DESCRIPTION	ORIGINAL LOP BUDGET	CURRENT BUDGET		COMMITMENTS			EXPENDITURES			CURRENT FORECAST	
		APPROVED	TO DATE	PERIOD	TO DATE	REMAINING BUDGET	PERIOD	TO DATE	% SPENT	PERIOD	TO DATE
EARLY DEMOLITION	36,350,437	-	39,489,733	-	39,489,733	-	-	39,479,775	100%	-	39,489,733
TPSS DESIGN/BUILD	19,124,994	-	19,674,109	-	19,242,069	432,040	140,494	18,099,436	92%	-	19,674,109
PORTAL WIDENING	447,575,987	-	547,007,507	1,055,188	551,742,596	17,104,915	7,376,841	414,341,330	73%	-	568,847,511
CONSTRUCTION SUBTOTAL	503,051,417	-	606,171,349	1,055,188	610,474,398	17,536,955	7,517,335	471,920,541	75%	-	628,011,353
RIGHT OF WAY	103,210,417	-	105,678,441	-	105,869,816	-	33,602	105,606,353	100%	-	105,869,816
THIRD PARTY	5,000,432	-	8,412,753	-	9,468,012	1,402,238	16,517	5,776,195	53%	-	10,870,249
PROFESSIONAL SERVICES	97,708,756	-	138,137,492	2,641,029	146,449,148	13,458,944	1,473,010	124,806,166	78%	13,000,000	159,908,092
SUBTOTAL	205,919,605	-	252,228,686	2,641,029	261,786,976	14,861,182	1,523,129	236,188,714	85%	13,000,000	276,648,158
CONTINGENCY	92,778,555	-	98,349,543	-	-	52,090,067	-	-	0%	(13,000,000)	52,090,067
TOTAL	801,749,577	-	956,749,577	3,696,217	872,261,374	84,488,204	9,040,464	708,109,254	74%	-	956,749,577

Original Budget

In December 2019, the Metro Board Approved the LOP Budget of \$801,749,577. At that time the project budget was allocated to match the forecasts for construction, third party, right of way, professional services, and contingency, as was indicated in the December 2019 Board report.

Current Budget

Since the start of the project there have been two LOP increases.

The first occurred in February 2022, where the Board approved the LOP increase of \$75,000,000, bringing the LOP budget to \$876,749,577.

The second occurred in April 2023, where the Board approved the LOP increase of \$80 million, increasing the Total LOP Current Budget to \$956,749,577.

Commitments

Commitments increased by \$3.7 million in this period to \$872.3 million which represents 91.2% of the current budget. There was a \$2.6 million increase in commitments for this period under professional services and \$1.1 in construction.

Expenditures

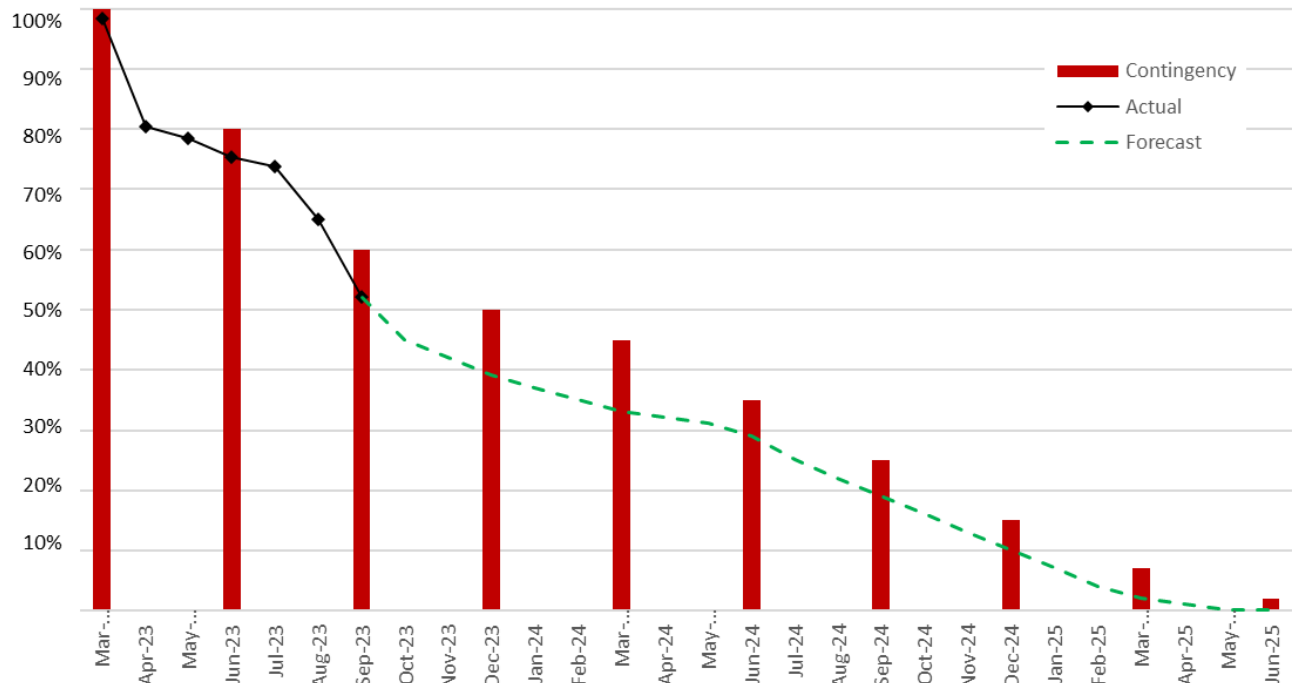
Expenditures increased by \$9.0 million this period to \$708.2 million which represents 74.0% of the current budget. The total increase is for costs associated with construction and professional services.

Current Forecast (expressed in millions)

The overall project forecast remains the same at \$956,749,577 million this reporting quarter period.

- The forecast for Construction is \$628.0 for this reporting quarter.
- The forecast for Professional Services is \$159.9 for this reporting quarter
- The forecast for Contingency is \$52.1 for this reporting quarter

Cost Contingency Drawdown



Cost Contingency Drawdown Analysis

The Cost Contingency Drawdown curve reflects cost commitments and forecast exposure, thereby providing a depiction of overall contingency status. Basing the drawdown on exposures (issuances of change notices) rather than executed contract modifications, eliminates the administrative processing time involved to finalize contract modifications from the drawdown projections. Planned expenditures per quarter have also been updated to reflect the current schedule and risks.

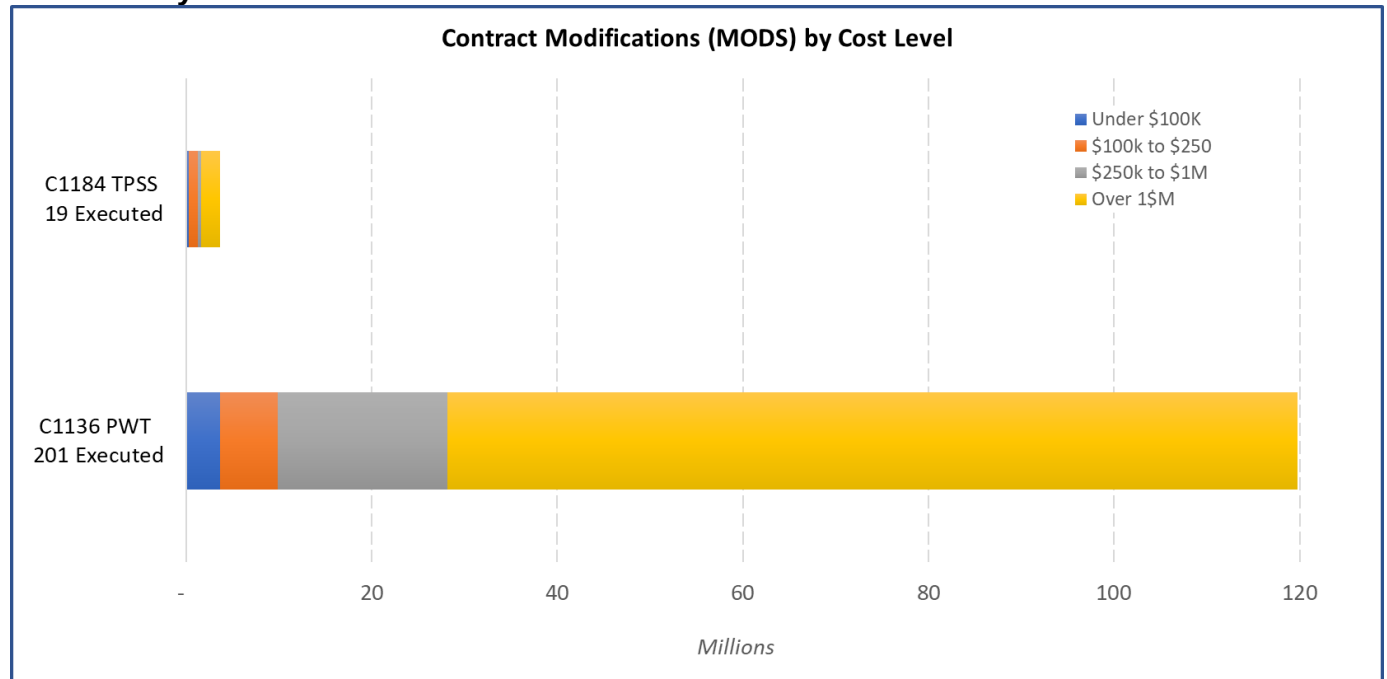
Total Contingency is \$309.4 million with \$61.7 million in Allocated Contingency and \$247.8 million in Unallocated Contingency. An LOP increase of \$80 million and budget reallocation within the project at the end of Fiscal Year 2023 Quarter 4 reestablished project contingency levels.

In Fiscal Year 2024 Quarter 1, the remaining total project contingency (allocated and unallocated) is \$52,090,067.

PROJECT COST CONTINGENCY					
UNITS in DOLLARS					
	LOP Contingency	Previous Period	Current Period	To-Date	Remaining Contingency (Forecast)
Allocated Contingency	61,665,813	(61,665,813)	-	(61,665,813)	(0)
Unallocated Contingency	247,778,555	(173,301,375)	(22,387,113)	(195,688,488)	52,090,067

*corrected LOP Unallocated Contingency from previous FY23 Q4 statement of 248,599,301

Summary of Construction Contract Modifications



Cost Level		C1136 PWT 201 Executed		C1184 TPSS 19 Executed	
Under \$100K	99	3,684,075	12	285,689	
\$100k to \$250	37	6,158,890	5	1,014,309	
\$250k to \$1M	42	18,329,037	1	292,562	
Over 1\$M	23	91,580,274	1	2,101,007	
Total Contract MODs	201	119,752,276	19	3,693,567	
Contract Award Amount		431,777,000		16,187,495	
% of Contract MODs		22%		19%	

Two Hundred and One (201) Contract MODs with a total value of \$119.6 million have been executed since the award of Contract C1136 – Portal Widening Turnback by Tutor Perini Corporation.

Nineteen (19) Contract MODs with a total value of \$3.7 million have been executed since the award of Contract C1184 – Transfer Power Substation by C3M.

FINANCIAL/GRANT

State of Funds Anticipated

Revised: updated April 2023

Proposed Funding (\$1,000s)						
FUND SOURCE	Prior	FY23	FY24	FY25	FY26	TOTAL
TIRCP	22,830		46,380			69,210
State SB1 LPP		20,000	84,090	29,000		133,090
Local Funds	512,720	147,150	8,960	56,000	29,620	754,450
TOTAL FUNDS	535,550	167,150	139,430	85,000	29,620	956,750

Superseded - Previous Statement July 2023

Proposed Funding (\$1,000s)						
FUND SOURCE	Prior	FY22	FY23	FY24	FY25	TOTAL
TIRCP	4,772	0	16,880	47,550		69,202
State SB1 LPP	16,880	37,510	35,080	43,790		133,260
Local Funds	345,980	128,250	99,040	16,660	84,350	674,280
TOTAL FUNDS	367,632	165,760	151,000	108,000	84,350	876,742

Superseded - Previous Statement

Proposed Funding (\$1,000s)								
FUND SOURCE	16-17	18-19	19-20	20-21	21-22	22-23	23-24+	TOTAL
TIRCP	4,772	0	64,437	0	0	0	0	69,209
State SB1 LPP	0	0	18,659	37,506	37,506	37,506	0	131,177
Local Funds	15,807	104,384	368,705	37,506	37,506	37,506	0	601,414
TOTAL FUNDS	20,579	104,384	451,801	75,012	75,012	75,012	0	801,800

TIRCP is the Transit and Intercity Rail Capitol Program for Metro Red Line and Purple Line Core Capacity Improvements. The TIRCP grant provides partial project funding of \$62,209 million for the additional yard capacity located at Metro's Division 20 to accommodate the augmenting expansion of the Purple Line Extension as well as not to preclude a future revenue station in the Arts District.

SB 1 is the California Senate Bill 1 also known as the Road Repair and Accountability Act of 2017. The SB1 Grant is a Local Partnership Program (LPP).

The LPP Road Repair and Accountability Act of 2017 (Senate Bill 1) created the Local Partnership Program and continuously appropriates \$200 million annually from the Road Maintenance and Rehabilitation Account to local and regional transportation agencies that have sought and received voter approval of taxes or that have imposed fees, which taxes or fees are dedicated solely for transportation improvements.

Ref. <https://catc.ca.gov/programs/sb1/local-partnership-program>

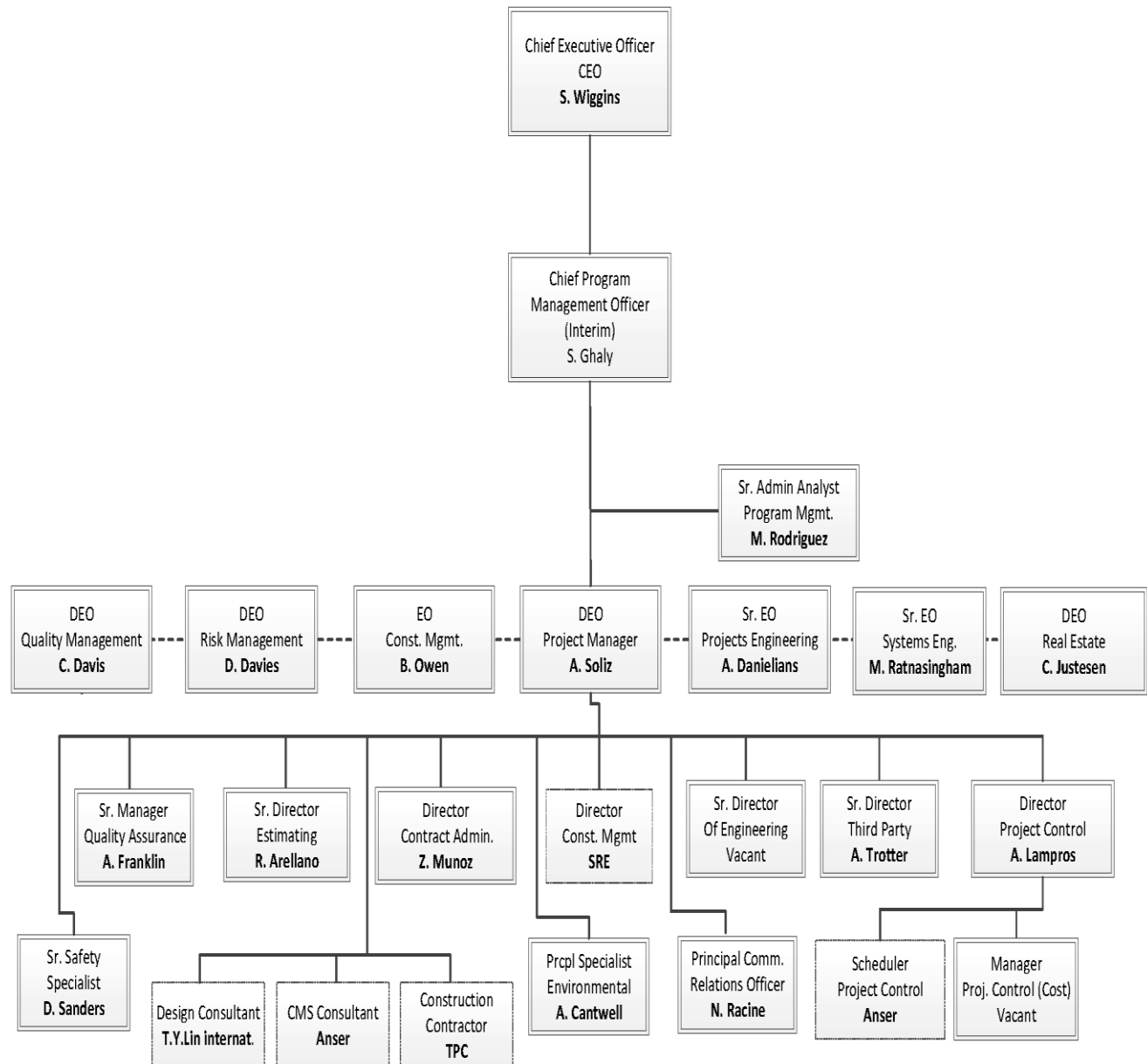
The SB1 LPP grant provides partial project funding of \$133,260 million.

Local Funds are comprised of a Measure M and Measure R Los Angeles sales tax. Local Funds provides remaining project funds of \$674,280 million.

PROJECT ORGANIZATION AND STAFFING

The design-bid-build contract is being managed by Metro and consultant personnel jointly located at the Integrated Project Management Office (IPMO). Below is the organization chart for the project team and project staffing for engineering services consultant.

Division 20 Portal Widening Turnback Management Organization and Staff



Issue Date: 06/30/2023

Metro Staff ☐
 Consultant ☐

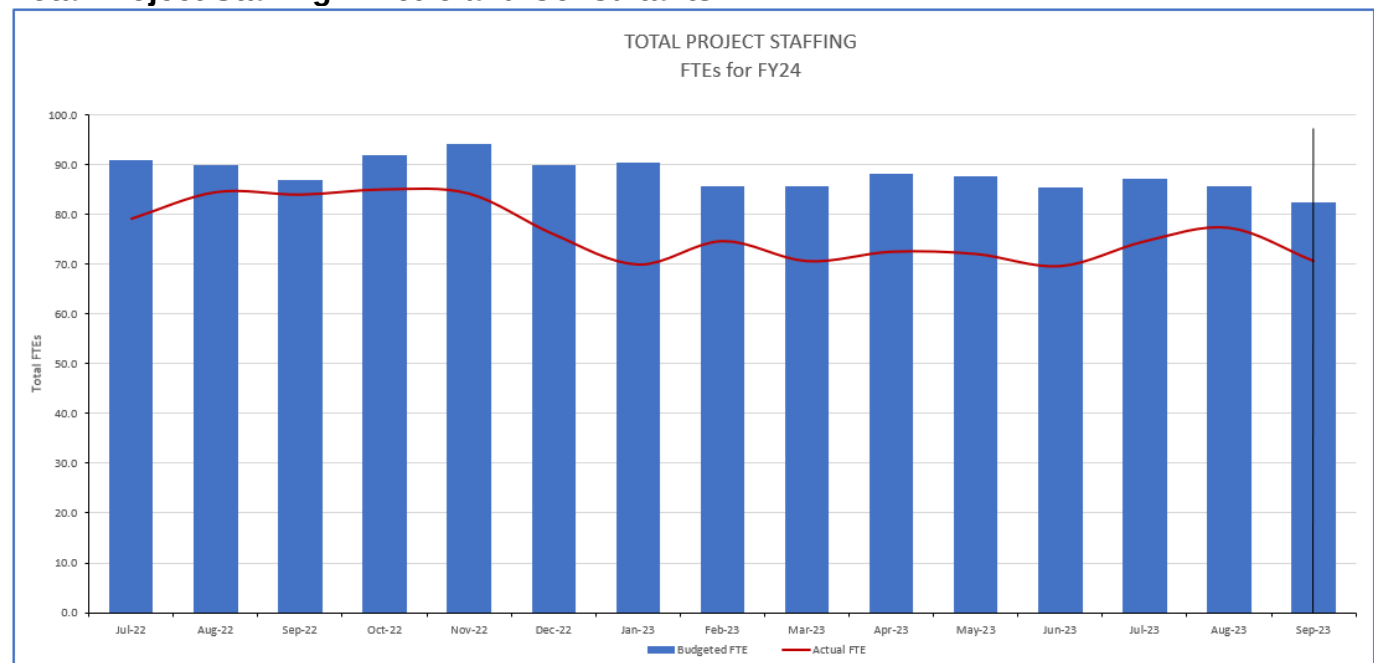
Staffing by Group

The opposing graphs represent Planned vs. Actual staffing levels by group. Metro staffing includes full-time staff located in the IPMO as well as part-time support located at Gateway Headquarters. Staffing plans are developed for each fiscal year based on Project needs.

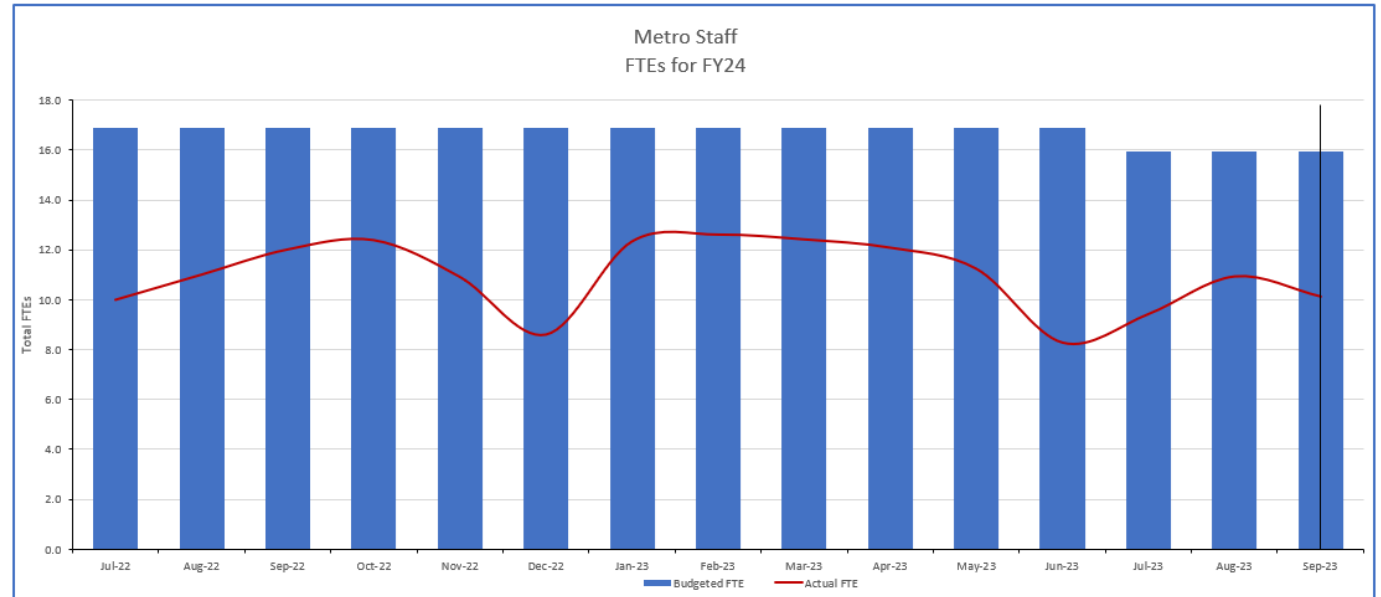
The updated and final overall FY24 Total Project Staffing plan averaged 85 FTEs per month. The total actual project staffing for September 2023 is comprised of 10 FTEs for Metro's Project Administration staff and 75 FTEs for consulting staff. Consulting staff FTEs are based on monthly invoice billable hours. Review of staffing plans is on-going to ensure staffing needs are appropriately managed.

FTEs – Full Time Equivalents

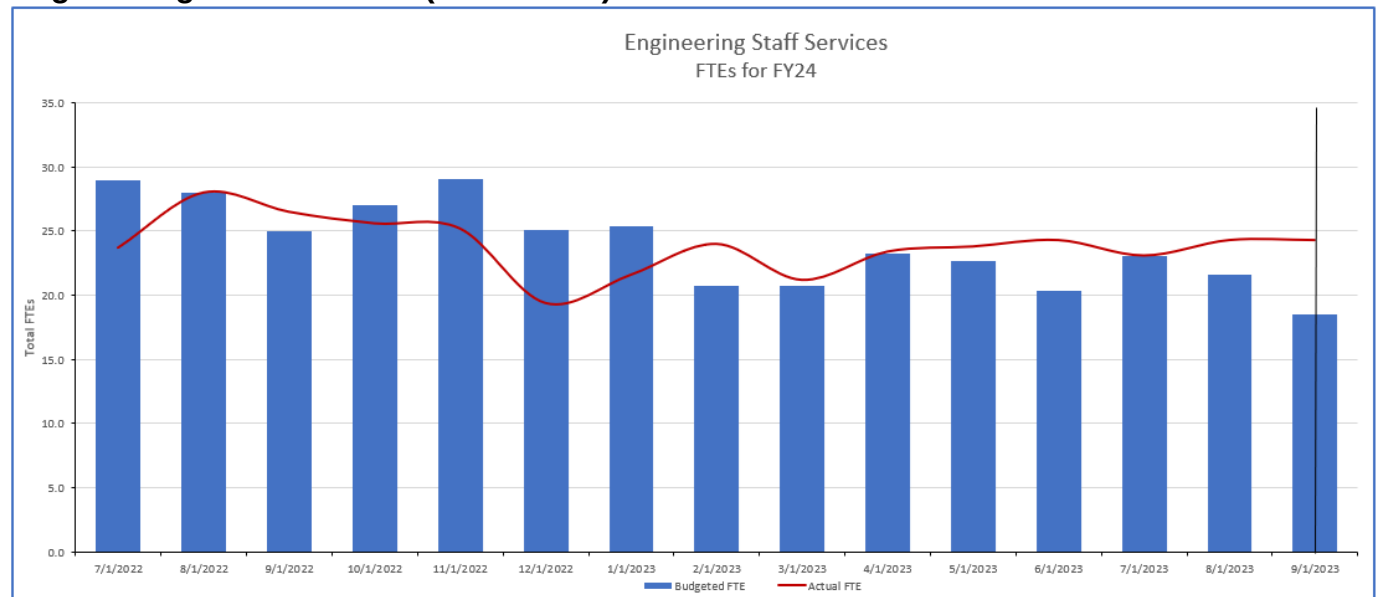
Total Project Staffing – Metro and Consultants



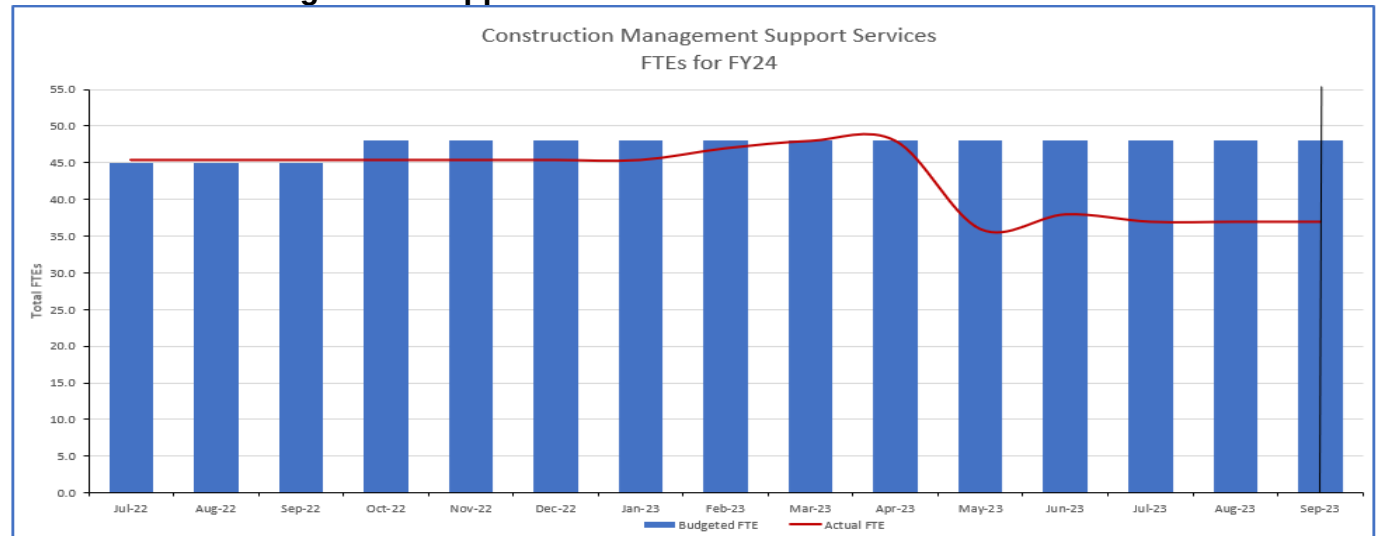
Metro Staff



Engineering Services Staff (Consultant)



Construction Management Support Services



QUALITY ASSURANCE

- Worked in conjunction with the contractor's Quality Management team to resolve items which have resulted in documented deficiencies.
- Facilitated dialogue with the contractor's Quality Group to continue Improvements in quality control processes and document control management.
- Coordinated with Metro's Verification Testing Laboratory consultant (Ninyo and Moore) to provide continued support with the inspection and testing of the Division 20 Project work activities.
- Performed reviews of the contractor's quality submittals and Construction Work Plans for compliance with contract requirements.
- Worked closely with the contractor's Project Quality Manager to assess and manage work activities which require additional attention.
- Continued evaluations of the contractor's inspection report, test results and associated quality records.
- Coordinated Project Quality Program Audit (4th *Quarter 2023*) of contractor's Project Quality Program Management and adherence to Quality Plans, ongoing.

ENVIRONMENTAL

The following is a listed series of items that consolidates the scope of all the consultants task orders and finally the completion of Enabling Contract.

- Participated in various Project coordination meetings and evaluated progress and schedules for environmental compliance and sustainability efforts.
- Provided environmental awareness training as needed.
- Conducted field environmental monitoring and spot check inspections for construction noise and vibration, stormwater and fugitive dust BMPs, and Metro's Green Construction Policy.
- Reviewed and provided responses to various contractor submittals and requests for information related to environmental matters.
- Performed archaeological/paleontological and cultural monitoring activities as needed during various excavation activities.
- Complied with various SCAQMD rules and permits including VOC and dust monitoring.
- Dewatering activities stopped at Portal Widening per updated Project schedule. Dewater activities are planned to begin again in future as required.
- Continued Migratory Bird Treaty Act nesting bird monitoring and other compliance activities.

Status Update

- Participated in various Project coordination meetings and evaluated progress and schedules for environmental compliance and sustainability efforts.
- Provided environmental awareness training as needed.
- Conducted field environmental monitoring and spot check inspections for construction noise and vibration, stormwater, and fugitive dust BMPs, and Metro's Green Construction Policy.
- Reviewed and provided responses to various contractor submittals and requests for information related to environmental matters.
- Performed archaeological/paleontological and cultural monitoring activities as needed during various excavation activities.
- Complied with various SCAQMD rules and permits including VOC and dust monitoring.
- Dewater treatment system designed, installed, permitted and operational at the Former Viertel's property for dewater efforts at the Portal Widening.

APPENDIX CHRONOLOGY OF EVENTS

May 2016	Division 20 Portal Widening Turnback Project Initiated
March 2017	Design Engineering Contract AE66758000
July 2017	Real Estate Acquisition ADCO 200-234 N. Center Street
January 2018	Real Estate Acquisition Viertel's Tow Yard 500 N. Center Street
June 2018	Construction Management Support Services Contract AE4863MC074
October 2018	Certified Final Environmental Impact Report and Related Actions
January 2019	Real Estate Acquisition 100-120 N. Santa Fe
January 2019	Portal Widening Construction Contract C1136 Issue for Bid
February 2019	Real Estate Acquisition Pickle Works 1001 East First Street
February 2019	Transfer Power Substation Contract C1184 Issue for Bid
June 2019	Transfer Power Substation Contract C1184 Notice of Award
July 2019	Transfer Power Substation Contract C1184 Notice of Proceed
December 2019	Board Approved Life of Project Budget
February 2020	Portal Widening Construction Contract C1136 Notice of Award
March 2020	Completion of Enabling Project Contract PS69133 Notice of Award
April 2020	Portal Widening Construction Contract C1136 Notice of Proceed
March 2020	Completion of Enabling Project Contract PS69133 Notice of Award
December 2020	Completion of Enabling Project Contract PS69133 Completed

APPENDIX CHRONOLOGY OF EVENTS *cont'd*

January 2021	Contract C1184 ongoing LADWP coordination. Contract C1136 ordering of third rail; portal timber logging & Installation of temporary power poles
February 2021	Installation of Temporary No.8 turnout for PLE1 transport of CWR into tunnel. Contract C1184 submittals to continue the fabrication of TPSS station, Switch gear & emergency backup generator
March 2021	Relocation of Amtrak fence to initiate walkway along Road A; continuation of duct bank and water lines install. Contract C1184 resolution of seismic design
April 2021	Ordering of third rail; initiate bridge removals. Contract C1184 additional submittals to continue the fabrication of the TPSS station
May 2021	Installation of temporary power poles and cables. Continuation of duct banks and waterlines
June 2021	Support of Excavation and Lagging on the Portal Wall is complete
September 2021	C1136 MOD20 /CN6 Executed
September 2021	Commence Microlok Cut Over
November 2021	Microlok II cutover successfully complete
December 2021	1 st . Street Bridge poured footings and commence the installment of thirty-seven casted girders
January 2022	Installation of timber treated lagging at the Portal (East/West)
February 2022	Demolition of Smoke Slab on 1 st Street bridge
March 2022	Shoofly Cutover Tail Track 2 (TT2) to Track 1
May 2022	North Yard Storage Tracks asphalt cap
June 2022	TPSS Foundation Pour
August 2022	1 st Street Bridge Bent 16 Demolition
September 2022	Northern Yard Storage Track Installation
November 2022	North Storage Yard Paving, Ballast Placement and Storage Track Substantially complete EBPS Generator pad completed (C1184 TPSS)

APPENDIX

CHRONOLOGY OF EVENTS *cont'd*

December 2022	Contract Milestone 2 - Portal Wall Demolition started Transformer pad completed Metering Switchgear Installed (C1184 TPSS)
January 2023	1 st Street Bridge Bent 13 Demolition
February 2023	Ducommun St. Protection slab and the first invert at the portal
March 2023	West Portal Retaining Wall foundation/slab
April 2023	Emergency Back up Power Supply (EBPS) delivery and setting
June 2023	Contract Milestone 3 - Completion of Portal Wall and conduits MCP site
June 2023	Traction Power Substation (TPSS) delivery and setting – 4 out of 6 sections
August 2023	Traction Power Substation (TPSS) delivery and setting – final 2 sections
August 2023	Contract Milestone 4 - Completion on Traction Power cable installation related to TPSS/EPBS Equipment Installation