

**Board Report**

File #: 2023-0197, **File Type:** Budget**Agenda Number:** 26.

**CONSTRUCTION COMMITTEE
APRIL 20, 2023****SUBJECT: DIVISION 20 PORTAL WIDENING TURNBACK FACILITY LOP INCREASE****ACTION: APPROVE RECOMMENDATION****RECOMMENDATION**

AMENDING the Life-of-Project (LOP) budget by \$80,000,000 for the Division 20 Portal Widening Turnback Facility (Project) from \$876,749,577 to \$956,749,577 using the fund sources as summarized in Attachment A, consistent with the provisions of the Board-adopted Measure R and Measure M Unified Cost Management Policy (Attachment B).

ISSUE

A key element of the complexity of the Division 20 Portal Widening Turnback Facility Project is the requirement of maintaining existing service for the B Line and D Lines that necessitates a distinct order of phasing to keep the rails operational while constructing sections of the rail yard improvements. This constraint, combined with a significant number of unknown factors, has contributed to changes and delays to the Project that has consumed much of the budgeted Life of Project (LOP) contingency.

Some of the unknown factors include the expansion of the Division 20 Yard into 20 acres of a previous industrial site with underground conditions and hazardous waste, major structural changes required to the 100-year-old First Street Bridge, unknown utilities encountered within the existing Yard that required relocation or re-design to incorporate into the work, interface with multiple adjoining projects, design deficiencies, and third-party requirements.

On February 17, 2022, a Life of Project Budget increase was approved by the Board in the amount of \$75,000,000. The increase was for the projected funds anticipated for a 12-month duration. Given that the Project was 30% complete, at that time, and had encountered a significant number of design changes, delays, and unforeseen site conditions, it was determined that assessing the full increase of the LOP contingency could better be determined by advancing the Project an additional Fiscal Year, incorporating design changes undertaken, and to better evaluate the range of costs of unforeseen site conditions.

The Project has advanced to 48% complete, with many of the costs associated with the First Street Bridge and the industrial site fully realized. A recently conducted update to the risk analysis and

modeling identified the need for additional LOP given the many challenges of this complex Project, staff is recommending an increase of \$80,000,000 to the LOP.

BACKGROUND

The Division 20 Portal Widening Turnback Facility (Project) enables trains to operate at required headways and increases the storage capacity to support the expansion of the Purple Line Extension (D Line). As part of the Full Funding Grant Agreement (FFGA) from the Federal Transit Administration (FTA) under Purple Line Section 1 (PLE1), the Division 20 Portal Widening Turnback Facility Project will allow trains to turn back quickly to meet the planned service levels and FTA requirements. Achievement of the reduced headways requires significant modifications to the Division 20 Yard which includes portal widening, power relocation and upgrades, First Street Bridge modifications and seismic upgrade, installation of turnback facility and storage tracks, train control, signaling systems installation and integration.

The Metro B/D Line trains currently “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 B/D Line 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 B/D 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 produce a clear benefit to current and future operations by increasing train speeds and ensuring reliability of the system, the existing tunnel portal must be widened to accommodate additional tracks and switches that diverge to become the turnback and yard leads.

In addition to the turnback facility, the Purple Line 1, Purple Line 2, and Purple Line 3 projects will add train vehicles to the Metro Fleet that will generate a need for increased storage capacity in the B/D Line Yard. Storage tracks are being constructed North and South of the First Street Bridge as part of the Division 20 Project. Complex switching and train movements must be integrated with the turnback facility to enable trains to move from storage onto the main line and into service through the portal.

To install the new turnback facility and new storage for train vehicles, the current power substation for the Yard must be relocated and upgraded to meet the power requirements for the Project turnback facility and added storage. Twelve different construction phases are necessary as geometry and alignments are modified for relocating and upgrading track, power, utilities, and train control systems in different locations in the yard. The Contractor must maintain 24/7 operations with each phase requiring safety testing and formal turnback procedures before trains can be returned for in-service operations.

Finally, construction and pre-revenue testing of the portal widening and turnback facility must be coordinated in accordance with PLE Section 1 schedule for opening for Revenue Service.

On February 25, 2020, Metro issued a conformed contract with a Contract Award of \$431,777,000 for construction of the Division 20 Portal Widening Turnback Facility Project to Tutor Perini Corporation and a Life of Project budget in the amount of \$801,749,577. The Notice To Proceed was issued on April 8, 2020. On February 17, 2022, a Life of Project Budget increase was approved by the Board in the amount of \$75,000,000, adjusting the amount to \$876,749,577.

The costs impact related to the First Street Bridge, design changes, and encountered site conditions have reduced the Project contingency to less than 2% of the current LOP budget. This Board Action requests authorization to replenish contingency and provide sufficient funding for contract changes and base contract activities through the Project completion.

DISCUSSION

The Division 20 Portal Widening Turnback Facility has advanced to 48% overall completion. The Design-Bid-Build (DBB) Project has encountered significant changes and cost impacts related to unknown underground site conditions, third party requirements, and design changes that have directly relate to future costs for schedule delays to the contractor and maintenance of Project oversight staffing.

The additional contract changes that were not anticipated, detailed in the previous Board Report (2021-0765), included significant design changes necessary to reconcile corrections to the design, the old industrial facility that was not under Metro ownership during the design that could not be fully examined to determine actual quantities of hazardous materials or site conditions, and the First Street Bridge deteriorated state and subsequent delays to the Project schedule. The total cost of these impacts continued over the last year and are now nearing completion.

A significant portion of the future contingency expenditures will be for future underground site conditions encountered, delay costs to the contractor, and the extended duration of the Project oversight staffing for the extended schedule. Approximately 25-acres of the 60-acre yard remain in service and will be under reconstruction within the next 18-months with anticipated underground differing site conditions. The Project schedule has increased by 492 days which will result in extended staffing for the Project designer and consultant Construction Management Support Services (CMMS). Additionally, the contractor will have added costs for the extended contract duration.

Since February 2022, the Project has successfully completed a major milestone consisting of structural and seismic upgrades to the First Street Bridge to accommodate the additional track work, primary power utility work to support the new traction power substation, more than 5 miles of new duct bank installation, demolition of westerly portal to support the additional tracks, and installation of one of the train control bungalows.

The completion of much of the First Street Bridge, underground work in the old industrial area, and existing yard, significantly reduces the unknown risks for the Project. Many of the design changes have been attributed to underground changed conditions, conflicts not anticipated during design development, or other design factors. Much of the old industrial area contained old foundations,

utilities, hazardous materials, and industrial piping at depths greater than 20 feet below the existing surface that required mitigation by removal or redesign to avoid clashes. In the existing yard there is a network of numerous underground utilities that support signal, communication, lighting, electrical components that have been added, modified, and abandoned in place over the last 30 years, in which drawing records were not accurately depicted or the drawings were not found that resulted in design changes/additional work. A majority of the Project footprint for underground work has been opened up and existing conditions exposed that should reduce the quantity of changes related to differing site conditions. The project is currently 48% complete.

The Project contingency remaining is currently less than 2%, this Board Action will increase the amount to 8% of the Project's budget for any future anticipated contract changes and related activities through the Project's completion. The increase will amend the LOP budget of \$876,749,577 to \$956,749,577.

DETERMINATION OF SAFETY IMPACT

This Board action will not have an impact on established safety standards for Metro's construction projects.

FINANCIAL IMPACT

Funds required for fiscal year 2024 have been requested through the fiscal year 2024 budget development, to be adopted at the May 2023 Board meeting. Since this is a multi-year capital project, the Chief Program Management Officer and the Project Manager will be responsible for budgeting costs in future fiscal years.

Impact to Budget

The sources of funds for the recommended actions are local and other funds that are eligible and available at the time of expenditure.

Multiyear Impact

The sources of funds for the Project are capital funds identified in the recommended Funding/Expenditure Plan as shown in Attachment A. With respect to the \$80,000,000 increase, Attachment B shows the Measure R and Measure M Unified Cost Management Policy (the Policy) analysis and funding strategy required for cost increases to Measure R and Measure M Projects.

To comply with the Policy of the Metro Board of Directors, Metro staff has evaluated potential offsetting cost reductions, including scope reductions, value engineering, shorter segments. Because the project is so far along, these actions are no longer feasible.

This report identifies additional funding resources consistent with the Policy approved by the

Board in 2018. Attachment B provides a detailed discussion of the Policy. In summary, the Policy was developed in recognition that some projects would need additional funding and the Policy provides a consistent and equitable process to ensure that any financial impacts are limited to the local area where the project is located and not have a region-wide impact.

The source of funds to address the LOP increase are Measure R Transit Capital (35%) for WPLE, made available from additional New Starts funding.

EQUITY PLATFORM

The benefits of this action are to ensure that transit service for disadvantaged communities. Based on the 2019 Customer Survey, the Red and Purple heavy rail lines serve the following ridership:

- 27.7% below the poverty line
- 56.4% had no car available
- Rider Ethnicity: Latino 38.9%; Black 13.1%; White 25.8%; Asian/Pacific Islander 15.2%; Other 6.5%

In addition, areas served include Union Station to Downtown LA, Koreatown (Wilshire/Western), Hollywood, Universal City, and North Hollywood, a majority of which serve people living in Equity Focus Communities.

The Division 20 C1136 Mainline contract will support the Purple and Red Line system by increasing service frequency, reliability and access for communities that use the Metro transit system along both alignments for housing, jobs, educational, medical and entertainment needs. These service upgrades have a positive impact for riders of the system from marginalized communities that travel along Red and Purple Line Corridors, by increasing access, capacity, and reliability to meet these essential travel needs.

The contract has Small Business Enterprise (SBE) commitments of 19.34% and Disabled Veteran Business Enterprise (DVBE) commitments of 3.31%, and the contract modifications requested in this report do not change the level of commitments. Current level of participation is 5.60% SBE and 2.71% DVBE. The majority of the SBE scope is trackwork and the Project must complete the underground heavy civil and utility work first before the trackwork begins. There are three more years left in the contract to achieve the 19.34% SBE and 3.31% DVBE commitments.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

Recommendation supports Strategic Plan Goal #1 - Provide high-quality mobility options that enable people to spend less time traveling. Deliver outstanding trip experience for all users of the transportation system. Enhance communities and lives through mobility.

ALTERNATIVES CONSIDERED

The Board may choose to not move forward with amending the LOP budget. This is not recommended as Metro will be unable to provide funding to complete the Project according to the current schedule.

NEXT STEPS

Upon approval by the Board, the LOP budget will be amended accordingly per the recommendation.

ATTACHMENTS

Attachment A - Funding/Expenditure Plan

Attachment B - Measure R and Measure M Unified Cost Management Policy Analysis

Attachment C - Projected Breakdown of Cost Allocation for \$80 Million

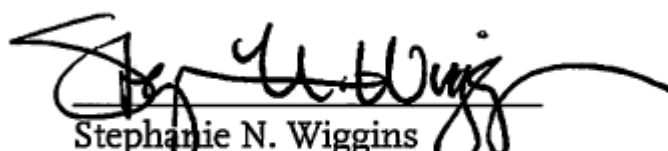
Prepared by:

Albert Soliz, Deputy Executive Officer, Program Management, (213) 922-4002

Debra Avila, Deputy Chief, Vendor/Contract Management (213) 418-3051

Reviewed by:

Sameh Ghaly, Chief Program Management Officer, (213) 418-3369



Stephanie N. Wiggins
Chief Executive Officer