



Board Report

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CONSTRUCTION COMMITTEE April 20, 2023

**SUBJECT: OFFICE OF THE INSPECTOR GENERAL
CONSTRUCTION CHANGE ORDER SPOT CHECKS**

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE Office of the Inspector General Construction Change Order Spot Check Report for the period December 1 to February 28, 2022.

ISSUE

On January 25, 2018, the Metro Board directed the Office of the Inspector General (“OIG”) to conduct random spot checks on change orders for the construction projects listed in the Quarterly Program Management report to ensure that the CEO Delegation of Authority to approve Construction Change Orders Policy is performing in the manner desired by the Board of Directors.

BACKGROUND

The OIG's Construction Change Order Spot Check Program (“Spot Checks”) focuses on approved change orders and modifications that exceed \$500,000. The four change orders in this report were selected from the Program Management Quarterly Major Project Status, Legistar 2023-0176. The OIG gathers the data, reviews all the change orders over \$500,000 and selects change orders from the major projects. The information for the Spot Checks was collected from the Program Management Information System (PMIS) which is the department's database system. Also, virtual meetings and telephonic interviews were conducted with Metro Program Management, Project Control, and Procurement staff from each involved project office.

For each Spot Check, we summarize:

- Description of the change order,
- Change order detail,
- Scope of Work,
- Budget,
- Schedule (Time to execute the change order),
- Safety, and
- Recommendations and Lessons Learned.

Metro's Program Control department has provided informal responses to this report before its issuance and are asked to provide written responses to the recommendations in this OIG Spot Checks Report within 30 days after this Report is issued. Included with this Report is a spreadsheet on the status of responses concerning former OIG Spot Check Report recommendations (Attachment B).

DISCUSSION

Spot Checks Performed in this Quarter

Spot Check #1 - Regional Connector Transit Corridor Project

This OIG Spot Check report concerns the Regional Connector Project (Contract C0980 MOD 0245), 10-inch sanitary sewer relocation at 1st Street and Alameda Street and upsizing the existing 8-inch sewer to 12-Inch along 1st Street (east of Hewitt Street).

Change Order Detail

See Attachment A Spot Check #1 table.

Summary #1

Scope of Work - This change order involves three sanitary sewer lines that needed either relocating or upsizing to accommodate future sewage flows. The work for this change order is out of scope because the sewer relocation was under the advance utility relocation contract and the work has now been assigned to the current Contractor. The existing 10-inch and 15-inch sanitary sewer lines were in direct conflict with the proposed underground station. These two sewer lines were relocated in 2018-2019 and the work is complete.

The third sewer line involves upsizing of the line. Generally, the City of Los Angeles asks Metro to have a sewer line on each side of a track. In this case an 8-inch line already existed on the north side, and one could not be placed on the south side because that would be incompatible with already existing fiber optics cables on the south side. Therefore, Metro and the City agreed that Metro would upsize the 8-inch sewer line to a single 12-inch sewer on the north side in lieu of a south side sewer line.

The upsized sewer work was performed 2020-2021 and is now completed and the street has been restored.

Budget - This change order was negotiated as MOD 0245 for the amount of \$3,572,417. The Contractor's proposal was \$5,040,463 and the ICE was \$3,082,359. The difference in the negotiated price and the Contractor's proposal is \$1,468,046 (29%) lower than the Contractor's proposal. The ICE is \$490,058 (16%) lower than the negotiated amount. Staff stated that funds for this change order are within the Life-of-Project budget.

Schedule - The CEO Delegation of Authority process was utilized for this change order. The Contractor and Metro agreed on the Scope of Work on December 6, 2022. The modification was awarded on December 23, 2022, and was completed in 13 workdays. Under the prior Board approval method for change orders, assuming a January Board meeting date (no December meeting), it would have taken a total of 31 workdays to complete the transaction.

Safety - The Regional Connector Project has 7,778,347 project hours through January 2023 with a Recordable Injury Rate of 0.69 (per the Bureau of Labor Statistics the National Average is 2.4) and a Days Away Rate (DART) of 0.0 (per the Bureau of Labor Statistics National Average is 1.5).

Recommendation/Lessons Learned - Work with the City where construction is going to occur at the earliest possible time to determine their requirements so that those requirements can be negotiated, included in the bidding documents when released with correct information and requirements, and if the requirement change is caused by Metro's increased utilization of the utility or if it amounts to a betterment for which a sharing/contribution should be made.

Spot Check #2 - Purple Line Extension Section 1 Transit Project

This OIG Spot Check report concerns the Purple Line Extension Section 1 Transit Project (Contract C1045 / CO-0022), fully guarded double crossovers.

Change Order Detail

See Attachment A Spot Check #2 table.

Summary #2

Scope of Work - This change order is to procure materials for construction of a fully guarded double rail crossover at the La Brea and La Cienega Stations. This work is out of scope because the contract calls for a normal guarded double crossover, not a higher grade fully guarded crossover. A fully guarded rail has an extended length where the wheels are guarded with protective metals on both sides of the crossover rail. Rail cars traversing through crossovers have a tendency for the wheels to "ride up" above top of rail. The guard rail is installed at the critical point in the crossover where the rail car wheel can derail if not protected when the speed of the train is too high. A normal guard rail can be traveled at 9 mph and a fully guarded rail can travel up to 20 mph. Recent analysis has determined that to keep the minimum headway between the underground Purple line trains, 20 mph is necessary. This change order is to purchase materials required for the additional length of guard rails, plates, and braces to provide the protection necessary to safely travel at the higher speed.

Budget - Metro and the contractor negotiated and agreed upon the scope and price, but the Modification was returned unexecuted because the contractor stated that the scope of work for the participation goals written in the Modification could not be achieved to meet small or disadvantaged business participation goals. Because the contractor refused to sign the modification and the work was critical to the Project, the Project issued this unilateral change order at the final fixed amount of \$1,326,004. Regarding the participation goals, there are alternate paths that the Contractor can take with future modifications and future base contract scope of work to potentially meet their goals as well as providing good faith efforts to Metro to document why the goals could not be met at the conclusion of the contract. The Contractor's proposal is \$1,551,424 and the ICE amount is \$912,522. The difference in the negotiated price and the Contractor's proposal is \$225,420 (14%) lower than the Contractor's proposal. The ICE is \$413,482 (45%) lower than the negotiated price. Staff stated that funds for this change order are within the recently amended Life-of-Project budget.

Schedule - The CEO Delegation of Authority process was utilized for this change order. The Contractor and Metro agreed on the Scope of Work on December 19, 2022. The unilateral change order was awarded on January 4, 2023, and was completed in 11 workdays. Under the prior Board approval method for change orders, assuming a February Board meeting date, it would have taken a total of 45 workdays to complete the transaction.

Safety - The Purple Line Extension 1 Project has 8,152,744 project hours through January 2023 with a Recordable Injury Rate of 1.01 (Bureau of Labor Statistics reports the National Average is 2.4) and Days Away, Restricted or Transferred (DART) of 0.07 (Bureau of Labor Statistics reports the National Average is 1.5). There was one recordable injury, a hairline fractured thumb, on December 9, 2022.

Recommendation/Lessons Learned - The OIG recommends consulting with Operations on the desired headway speeds at the design phase so that these requirements can be added at the earliest possible times. This may be added to the Construction Departments Lessons Learned data base to have fully guarded double crossover rail to keep the minimum headway and protect rail cars to avoid possible derailment in the future in the initial design and specifications and avoid future change orders.

Spot Check #3 - Purple Line Extension Section 2 Transit Project

This OIG Spot Check report concerns the Purple Line Extension Section 2 Transit Project (Stations Contract C1120 CO 0058), project and construction site delay impacts.

Change Order Detail

See Attachment A Spot Check #3 table.

Summary #3

Scope of Work - This change order is to compensate the contractor for significant construction delay impacts without a time extension to the Contract. The contractor submitted a Request for Change (RFC) for construction delay impacts at Constellation Century City Station, Wilshire/Rodeo Station and the bored tunnels between April 26, 2017 to January 22, 2021. While Metro acknowledged certain delays occurred at the site during this time period, the Project team did not find merit in most of the alleged reasons for delay impacts warranting payment to the contractor, and disagreed with costs asserted by contractor in the RFC for the delays.

A few of the delays the Contractor asserted and requested reimbursement which they alleged not to be attributable to the themselves include:

- Delayed access to occupy site
- Delay related to start utility relocation
 - DWP ductbank
 - Differing site conditions
- Delays to begin piling

- Delays for decking
- Holiday moratoriums on construction more than anticipated
- Delay to start mass excavation of the launch box area
- Delays to start station structure
- Tunnel delays at the access shaft

The Project team has utilized Metro's compensation and payment provisions, schedule of quantities and prices, as well as the delay compensation price set forth in the contract to determine what the contractor may be entitled to payments. The Project team has found tunnel delays of 171 days and Wilshire/Rodeo station construction delays of 178 days. Of the 349 days there were 43 days during which the activities overlapped and reduced the delay time to 306 days. For the delays related to the "Notice to Proceed to the start of tunnel excavation", in the contract this amount is \$16,500 per day for which there were 222 days of delay, totaling \$3,663,000. For the "tunnel boring activity" delays, the contract provides for \$20,000 per day which Metro has determined to be 84 days, resulting in a cost of \$1,680,000. An additional \$67,856 for related bond cost has also been included. Because Metro and the Contractor have not reached an agreement, the Project Management issued a unilateral change order to the contractor for compensation of 306 days plus bond cost for the amounts not in dispute.

Budget - A unilateral change order was issued because the Contractor and Metro do not agree upon the cause or eligibility for payment for the alleged delays. The change order amount issued is \$5,410,856. The Contractor's proposal of cost for alleged delays is \$71,625,375 and the ICE is \$5,410,963. The difference in the unilateral change order amount and the Contractor's proposal of costs is \$66,214,519 (92.4%) lower than the Contractor's proposal. The ICE is \$107 greater than the unilateral change order amount. Staff stated that funds for this change order are within the approved budget and there is no cost recovery potential.

Schedule - The CEO Delegation of Authority process was utilized for this change order. The Contractor and Metro do not agree upon the construction delay days and therefore a unilateral change order award was issued. Because there is no agreement on the Scope of Work, the days saved cannot be calculated.

Safety - The Purple Line Extension 2 Project has 3,197,822 project hours through February 2023 with a Recordable Injury Rate of 2.94 (Bureau of Labor Statistics reports the National Average is 2.4) and Days Away, Restricted or Transferred (DART) of 0.69 (Bureau of Labor Statistics reports the National Average is 1.5). There was one recordable injury in January 2023.

Recommendation/Lessons Learned - None.

Spot Check #4 - Purple Line Extension Section 3 Transit Project

This OIG Spot Check report concerns the Purple Line Extension Section 3 Transit Project (Stations Contract C1152, CO-0090.1 and MOD 89), UCLA Station for additional LADWP temporary power

conduits.

Change Order Detail

See Attachment A Spot Check #4 table.

Summary #4

Scope of Work - This change order is for procurement of materials for installation of temporary power for station construction at the UCLA station. The full amount of the modification will cover the construction for the relocated electrical cables in larger diameter conduits incased in steel reinforced concrete (this assembly is called a ductbank). The re-design of the larger ductbank was approved under Modification 0083 for \$196,864 in September 2022.

Los Angeles Department of Water and Power (LADWP) has recently revised the size and quantity of conduits necessary to run power. This work is out of scope from the original contract because the initial corridor alignment to route the ductbanks inside the station box is no longer large enough to satisfy LADWP's increased power requirements. Therefore, the size of the ductbank must be enlarged to accommodate the increased quantity and larger diameter conduits. Consequently, this increase, forced the ductbanks location to move outside the station box on the south side of Wilshire Blvd. at the Westwood/UCLA Station.

Budget -. The modification is negotiated for the amount of \$2,587,000, however at the time of this report the modification was still awaiting signatures. The Contractor's proposal is \$2,638,254 and the ICE is \$2,581,923. The difference in the award is \$51,254 (2%) lower than the Contractor's proposal. The negotiated amount is \$5,077 over the ICE. In the same quarter (December - February) a change order has been issued as a Not to Exceed (NTE) change order for the amount of \$886,000. Issuing an NTE change order allowed the contractor longer lead time to order materials. The \$886,000 will be deducted from the final change order award amount. It should be noted pending the final signatures of the modification, LADWP's increased power requirements has cost Metro \$2,783,864 for design and construction. Staff stated that funds for this change order are within the approved budget and there is no cost recovery potential.

Schedule - The CEO Delegation of Authority process was utilized for the NTE change order and also for the modification which immediately followed. The Contractor and Metro agreed on the Scope of Work on November 3, 2022. The change order with an NTE of \$886,000 was awarded December 26, 2022 and was completed in 51 workdays. Under the prior Board approval method for change orders, assuming a January Board meeting date (no December meeting), it would have taken a total of 58 workdays to complete the transaction. Time saved for the full modification award cannot be calculated (at the time of this report) because it is currently awaiting completion.

Safety - The Purple Line Extension 3 Project has 2,482,416 project hours through February 2023 with a Recordable Injury Rate of 2.84 (Bureau of Labor Statistics reports the National Average is 2.4) and Days Away, Restricted or Transferred (DART) of 0.75 (Bureau of Labor Statistics reports the National Average is 1.5).

Recommendation/Lessons Learned - The OIG recommends:

1. For the Project to submit to the Lessons Learned data base, run by the Quality Assurance group, the events regarding coordination with LADWP (or another third-party utility) which required the increase in size of conduits and forced relocation of the ductbanks. By submitting

information of these changes to the Lessons Learned data base, future projects will be warned that there might be an update to the electrical requirements applicable to their project.

2. The Metro Rail Design Criteria (MRDC) should get periodic updates to include new standards by agencies that review and approve Metro construction so that when future RFPs are issued they comply with those mandatory standards. This will not foreclose Metro seeking a waiver or amendment in the future from that entity on an individual project that might reduce the cost and that will not require a costly change order. Additionally, the MRDC should be updated to encourage early coordination with the third-party utilities to obtain their written agreement to the specifications for a project prior to the RFP issuance.

FINANCIAL IMPACT

This report will have a financial impact on the Agency as described herein.

Impact to Budget

For all of the construction change orders reviewed, Metro states the funds are within the approved budget and will utilize the contingency funds to cover the costs from the Life of Project budget.

Spot Check #1)	\$3,572,417 Regional Connector Transit Corridor Project
Spot Check #2)	\$1,326,004 Purple Line Extension Section 1 Project
Spot Check #3)	\$5,410,856 Purple Line Extension Section 2 Project
Spot Check #4)	\$2,587,000 Purple Line Extension Section 3 Project

EQUITY PLATFORM

In the opinion of the OIG, we considered whether these change orders presented any equity related issues on their face. The OIG did not receive any data concerning community impacts. Each of the contractors are striving to have work performed by Disadvantage Business Enterprises (DBE) typically at 12-15% implementation, for these change orders at these EFC sites. There is a low-income equity-based community in the downtown area where the Regional Connector rail line traverses under the City. The sanitary sewer upgrades in the area of Alameda and 1st streets will benefit the community and the City of Los Angeles with increased sewer capacity. The OIG observed no obvious disparate impacts created by these change orders on small businesses, low-income persons, or by the performance of the work in a manner that impacted a disadvantaged community beyond what is typical and usual when conducting any construction.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The Office of Inspector General reviews large change orders over a calendar quarter and makes recommendations as appropriate to support Metro's Strategic Plan Goal #5: Provide responsive, accountable, and trustworthy governance within the Metro organization and CEO goals to exercise fiscal discipline to ensure financial stability. The OIG mission includes reviewing expenditures for fraud, waste, and abuse in Metro programs, operations, and resources. For each selected change

order reviewed, the OIG evaluates whether there are red flags of fraud, waste, or abuse taking place. We report the details of the significant change orders and make recommendations consistent with the OIG's Construction Best Practices report dated February 29, 2016, more particularly focusing on lessons learned, improving efficiencies, and prudent spending.

NEXT STEPS

The OIG shall provide every quarter, an ongoing spreadsheet of recommendations to Program Control and Program Management. Program Control and Program Management agrees to respond to the recommendations of the OIG within 30 days. The OIG continues to meet periodically to discuss reports, recommendations, and the status of implementation of the recommendations with Project Management, and receive updates. The list of OIG recommendations and Metro management responses is an attachment to this OIG report (Attachment B).

ATTACHMENTS

Attachment A - Change Order Details for Spot Checks in this report

Attachment B - Tracking Sheet of OIG Recommendations and Responses to last quarter

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