



Board Report

File #: 2021-0780, **File Type:** Informational Report

Agenda Number:

**CONSTRUCTION COMMITTEE
JANUARY 20, 2022**

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

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE Office of the Inspector General Change Order Construction Spot Check Report for the period September 1, 2021 to November 30, 2021.

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 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 \$1,000,000. The four change orders in this report were selected from the Program Management Major Project Status Report (Legistar file # 2021-0788) covering September 1, 2021, to November 30, 2021. The information for the Spot Checks was collected from the Program Management Information System (PMIS) which is the department’s database system. Also, TEAM meetings and telephonic interviews were conducted with Metro Program Management, Project Control, and Procurement staff from each involved project office.

We found that two of the four change orders in this report were:

- Negotiated and executed more expeditiously than would have occurred according to the former Board approval process,
- Approved faster with the new delegation of authority, and
- Negotiated at a lower cost than the contractors’ proposed price.

Each Spot Check summarizes the following areas:

- Description of the change order,
- Change order detail,
- Scope of Work,
- Budget,

- Schedule: Time to execute the change order,
- Safety, and
- Recommendations, if any.

Metro's Program Control department has provided informal responses to this report before its issuance and will 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.

DISCUSSION

Spot Checks Performed in this Quarter

Spot Check #1 - Regional Connector - Transit Corridor Project

This OIG Spot Check report concerns the Regional Connector - Transit Corridor Project (Contract C0980 MOD-00218): Metro Eastside Access Improvement Project "Segment 2" Esplanade and other improvements along Alameda Street - Construction Only

Change Order Detail

See Attachment A Spot Check #1 chart.

Summary #1

Scope of Work - This Change Order authorizes payment to the Regional Connector Contractor to construct the 1st Street and Central Station Improvement Project plans.

Plans were developed by Metro's Eastside Access Improvement Project team.

Metro thought it would be cost and schedule efficient to have the contractor from Regional Connector bid on and perform the work because the repaving of Alameda Street and other hardscape additions between 1st Street and Commercial Street for the Eastside project overlap with work being done by the Regional Connector contractor for the Regional Connector project.

The Plans were reviewed separately by the Regional Connector contractor and the Metro estimator for the Eastside project to determine similarity in scope between the two projects. By using the Regional Connector contractor, Metro avoids paying for demolition of the newly paved Alameda Street, eliminates the need for a separate contractor mobilization, and reduces in-house procurement activities. The Eastside Access Improvement Project will fund this modification.

Budget -This modification was negotiated, and the award amount is \$4,850,023. The Contractor's proposal was \$5,664,323 and the ICE was \$4,626,775. The award amount was \$814,300 (14.38%) under the Contractor's proposal. The negotiated amount was \$223,248 (4.83%) over the ICE. Staff stated that funds for this change are within the approved Life-of-Project budget.

Schedule - The new delegation process was utilized for this modification. The Contractor and Metro agree on the scope of work on September 3, 2021. The modification including the price, was awarded on October 7, 2021, and was completed in 24 workdays. Under the prior Board approval method for change orders, assuming a November Board meeting date, it would have taken a total of 62 workdays to complete the work.

Safety -. Regional Connector Project has 6,651,066 project hours through September 2021 with a Recordable Injury Rate of 0.72 (per the Bureau of Labor Statistics the National Average is 2.4) and a Days Away Rate (DART) of 0.00 (per the Bureau of Labor Statistics National Average is 1.5).

Recommendation - none

Spot Check #2 - Division 20 Portal Widening Turnback Project

This OIG Spot Check report concerns the Division 20 Portal Widening Turnback Project (Contract C1136 CO-00020.2): Differing Site Conditions - Connections to Existing Ductbanks and Unknown Utilities Impacts

Change Order Detail

See Attachment A Spot Check #2 chart.

Summary #2

Scope of Work - This Change Order authorizes the Division 20 project Contractor to continue the work of utility relocations, construct several large concrete manholes, and install high voltage ductbank that feed into the new traction power substation.

The original change order (CO 20.0) was first issued with a not-to-exceed (NTE) authorization of funds of \$440,860 to transfer unfinished work from the early utility relocations contract to the current Division 20 Portal Widening Turnback Project. As the Contractor began to dig trenches and install high voltage ductbank they found existing utilities that were not shown on the Department of Water and Power (DWP) as-built plans and other utility site conditions not identified on the plans. The authorized funds were exhausted with further work still to be done. Metro agreed to increase the change order (CO 20.1) NTE amount to \$840,860. This current change order (CO 20.2) further increases the NTE limit to authorize the contractor to perform work up to an additional \$1,700,000 of NTE amount. The recent increase in funds accounts for additional requirements by DWP and work to address the actual site utilities that differ from what was documented in the plan. Metro staff has received a new cost and schedule proposal from the Contractor which incorporates all of change orders: 20.0, 20.1, and 20.2. This full change order remains to be negotiated.

Budget - This change order is to increase the NTE limit to \$2,540,860. The NTE limit has now been increased three times. The work continues to progress and staff stated the work is being tracked on a time and material basis, however unknown utilities remain a potential source of scope increase.

Schedule - The new delegation process was utilized for this change order extension. There has been no change to the scope of work since late 2020 when the contractor began discovering new utility conditions as they perform ductbank work. The NTE value was increased on November 16, 2021. These circumstances do not lend themselves to a determination of time savings by the use of the new delegation process.

Safety - The Division 20 project had too few work hours through September 2021 than is required to calculate a recordable injury rate pursuant to the OSHA incident rate formula.

Recommendation - The OIG recommends that Metro continue to track the time and materials used by the contractor while negotiating the Contractor's cost and schedule proposal and to bring this change order to a final award amount.

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

This OIG Spot Check report concerns the Purple Line Extension Section 2 Transit Project (Contract C1120 CO-00034): Century City Constellation Station Storm Drain and Sanitary Sewer Relocation Construction of MOD 70 Design

Change Order Detail

See Attachment A Spot Check #3 chart.

Summary #3

Scope of Work - This change order is part of a larger change notice CN-47.1; to construct the storm drain and sanitary sewer relocation at the Century City Constellation Station. Costs for the design for the storm drain and sanitary sewer were previously completed under MOD 70. The design plans are approved by the City of Los Angeles Bureau of Engineering (BOE). Construction of the new storm drain and relocation of the sanitary sewer has begun. The Contractor still awaits BOE approval for final shoring plans to construct the deep trench for the existing storm drain to be excavated.

Change Notice (CN-47.1) was issued by Metro to the contractor in June 2020. Over 1-year later the Contractor submitted a 318-page, multi-million-dollar cost and schedule proposal (CSP) for Change Notice (CN-47.1) in July 2021 that incorporates three modifications (MOD 2, 70, and 74) and three change orders (CO 32, 26, and 34). Metro staff has stated, this CSP is currently under review by the Metro project team. Negotiations for the final price for all the work included in CN-47.1 could take Metro months to conclude research and confirm before an agreement can begin.

Budget - This change order scope and final award amount have not been agreed upon. The contractor has been issued a change order to proceed with the work up to a cost NTE \$5,436,000 to begin the construction. Issuing a change order to the contractor using the NTE method, mitigates delays to the excavation of the Century City Constellation Station. We cannot disclose the amount of the ICE until the contract is negotiated. Staff stated that funds for this change stay within the approved Life-of-Project budget.

Schedule - The new delegation process was utilized for this change order. The scope and price of the work have not been completely agreed upon. The change order was issued on September 27, 2021. Time-saving efforts using the new delegation process time cannot be determined under the circumstances.

Safety - Purple Line Ext. 2 Project has 2,354,779 project hours through October 2021 with a Recordable Injury Rate of 3.14 (the Bureau of Labor Statistics reports the National Average is 2.4) and DART of 0.67 (the Bureau of Labor Statistics reports the National Average is 1.5).

Recommendation - 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 (Contract C1152 MOD-0007): Replacement Parking at VA Hospital Lot 42 During Station Construction

Change Order Detail

See Attachment A Spot Check #4 chart.

Summary #4

Scope of Work - This change order is to refurbish four parking lots named 43, 3, 5, 7, and perform crack repairs at the American Red Cross parking lot at the West Veterans Administration Hospital (VA). There will be a new bus shelter and ADA walkway. All four parking lots will have new signage, striping of the parking stalls, and the addition of parking space bumpers. To create an ADA path at the north side of parking lot 43, a section of sidewalk will be removed and street lights relocated to make way for the new ADA path. Lot 43 will also have a new ADA-compliant parking section with multiple parking stalls. New concrete islands will be built and various existing concrete planters will be modified to accommodate the new parking lot layout.

This change order is outside the original scope of the contract because the Memorandum of Understanding between Metro and the VA to perform some of these modifications was negotiated after the contract was issued.

Budget - These modifications were negotiated, and the award amount is \$2,570,689. The Contractor's proposal was \$2,716,681 and the ICE was \$2,159,382. The award amount was \$145,992 (5.4%) under the contractor's proposal. The negotiated amount was \$411,307 (19%) over the ICE. Staff stated that funds for this change are within the approved Life-of-Project budget.

Schedule - The new delegation process was utilized for this modification. The agreed-upon scope of work occurred on November 30, 2020. Staff states, the modification was executed on November 18, 2021, and was completed almost one year later. Because the transaction was delayed by the contractor for months after being negotiated, there is no indication that the delegated authority saved time to perform the necessary negotiations since the transaction was delayed.

Safety - Purple Line Ext. 3 Project has 1,438,368 project hours through October 2021 with a Recordable Injury Rate of 1.67 (per the Bureau of Labor Statistics the National Average is 2.4) and a DART of 0.70 (per the Bureau of Labor Statistics National Average is 1.5).

Recommendation - The OIG recommends that the Contractor be instructed to timely submit cost proposals, enter negotiations, and sign agreements before work is performed so Metro can process the work order close in time to work being performed, not only to pay the contractor but to help ensure the sub-contractors are paid timely.

FINANCIAL IMPACT

This report will have no Financial Impact on the agency.

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 LOP budget.
- Spot Check #1) \$4,850,023 Regional Connector Transit Corridor Project
- Spot Check #2) \$2,540,860 Division 20 Portal Widening Turnback Project
- Spot Check #3) \$5,436,000 Purple Line Extension Section 2
- Spot Check #4) \$2,570,689 Purple Line Extension Section 3

EQUITY PLATFORM

In the opinion of the OIG, we considered whether these change orders presented any equity related issues on their face. Three of the locations: Alameda and 1st Street in China Town, Division 20 at the old railroad yard, and the West Veterans Administration Hospital on Wilshire Blvd., are within or adjacent to Equity Focus Communities (EFC's). Each of these construction projects is required to install tall (over 20-ft high) sound walls around the construction worksites to protect residential communities and office suites from the nuisance noise of construction. The exterior public side of the walls also serves as community advertisement space for local businesses and keeps the public safe as a barrier from the construction activities.

The work to be performed at the West Veterans Administration Hospital will make significant improvements to improve disabled persons access to the hospital, and the contractor will utilize sound blankets around the equipment while performing noise-generating activities such as saw-cutting and jack-hammering at VA Parking Lots to not disturb the hospital activities, patients, and surrounding neighbors.

The OIG did not receive any data concerning other 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. 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 recommendations that the Office of Inspector General has put forward 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. 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

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

Attachment C - Power Point for January 2022 Construction Spot Checks

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Karen Gorman
Inspector General

Spot Check #1 – Regional Connector Transit Corridor Project - Contract C0980**Change Order Detail**

<u>Description of Modification MOD-0218</u> Metro Eastside Access Improvement Project "Segment 2" Esplanade and other improvements along Alameda Street – Construction Only	
<u>Change Order Dates:</u>	
Scope of Work approved	September 3, 2021
Modification Executed	October 7, 2021
<u>Elapsed Time for Executing Change Order:</u>	
Using new delegated process	24 work days
Estimate using former Board approval process Agenda for the November Board	62 work days
<u>Cost of Change Order:</u>	
Metro independent cost estimate (ICE)	\$4,626,775
Contractor's proposed cost	\$5,664,323
Negotiated amount	\$4,850,023
Percentage of negotiated amount over ICE	4.83%
Amount negotiated less than the Contractor's proposal	\$814,300

Spot Check #2 – Division 20 Portal Widening Turnback Project - Contract C1136**Change Order Detail**

<u>Description of Change Order CO-0020.2</u> Differing Site Conditions – Connections to Existing Ductbanks and Unknown Utilities Impacts	
<u>Change Order Dates:</u>	
Scope of Work partial agreement or Not agreed upon	Late 2020
Change Order Executed as Not-to-Exceed	November 16, 2021
<u>Elapsed Time for Executing Change Order:</u>	
Using new delegated process	TBD
Estimate using former Board approval process Agenda for the November Board	TBD
<u>Cost of Change Order:</u>	
Metro independent cost estimate (ICE)	none
Contractor's proposed cost	none
Not to Exceed increase	\$1,700,000
Total of all 3 Not-to-Exceed increases	\$2,540,860

Spot Check #3 - Purple Line Extension Section 2 Transit Project - Contract C1120**Change Order Detail**

<u>Description of Modification CO-00034</u> Century City Constellation Station Storm Drain and Sanitary Sewer Relocation Construction of MOD 70 Design	
<u>Change Order Dates:</u>	
Scope of Work is not agreed upon	TBD
Change Order Executed as Not-to-Exceed	September 27,2021
<u>Elapsed Time for Executing Change Order:</u>	
Using new delegated process	TBD
Estimate using former Board approval process Not ready for Board	TBD
<u>Cost of Change Order:</u>	
Metro independent cost estimate (ICE)	TBD
Contractor's proposed cost	TBD
Negotiated amount	TBD
Percentage of negotiated amount over ICE	Not determined
Not-to-Exceed authorization of funds	\$5,436,000

Spot Check# 4 - Purple Line Section 3 Transit Project – Stations Contract C1152**Change Order Detail**

<u>Description of Modification – MOD-0007</u> Replacement Parking at VA Hospital Lot 42 During Station Construction	
<u>Change Order Dates:</u>	
Scope of Work approved	November 30, 2020
Modification Executed	November 18, 2021
<u>Elapsed Time for Executing Change Order:</u>	
Using new delegated process	1 year
Estimate using former Board approval process	undetermined
<u>Cost of Modification:</u>	
Metro independent cost estimate (ICE)	\$2,159,382
Contractor's proposed cost	\$2,716,681
Negotiated amount	\$2,570,689
Percentage of negotiated amount over ICE	19%
Amount negotiated under the Contractor's proposal	\$145,992

ATTACHMENT B (January 2022)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
January 2022 #1 Contract C0980 MOD-00218 Regional Connector - Transit Corridor Project Metro Eastside Access Improvement Project "Segment 2" Esplanade and other improvements along Alameda Street – Construction Only	none		
January 2022 #2 Contract C1136 CO-00020.2 Division 20 Portal Widening and Turnback Project Differing Site Conditions - Connections to Existing Ductbanks and Unknown Utilities Impacts	The OIG recommends that Metro continue to track the time and materials used by the contractor while negotiating the Contractor's cost and schedule proposal and to bring this change order to a final award amount.		
January 2022 #3 Contract C1120 CO-00034 Purple Line Extension Sect. 2 Century City Constellation Station Storm Drain and Sanitary Sewer Relocation Construction of MOD 70 Design	none		
January 2022 #4 Contract C1152 MOD-0007 Purple Line Extension Sect. 3 Replacement Parking at VA Hospital Lot 42 During Station Construction	The OIG recommends that the Contractor be instructed to timely submit cost proposals, enter negotiations, and sign agreements before work is performed so Metro can process the work order close in time to work being performed, not only to pay the contractor but to help ensure the sub-contractors are paid timely.		

ATTACHMENT B (October 2021)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
<p>October 2021 #1 Contract C0980 MOD-00206 Regional Connector - Transit Corridor Project Add Wye Junction Fan Plant - Construction</p>	<p>Since the Board approved of a budget for this item in 2015 at \$12 mil., the cost has increased to a total of \$21,186,000 (a 77% increase). This Fan System cost has been reported in pieces, as parts were completed, but not as a whole to indicate the cost creep overall over time. We recommend that when LOP information is being periodically provided to the Board that it includes a summary, per project, to show historical cost information over the life of each project. That summary should indicate if they anticipate completing the project within the current LOP and how many LOP increases have occurred so far.</p>	<p>The initial board item in 2015 for the fan plant was an ROM at the time and had yet to be fully designed and estimated for a complete change. As the project progressed the design and went into construction, the team worked through the negotiations for the full scope of the fan plant. As of now, there has only been one LOP increase and the project has anticipated that the project would fall within the LOP to date. Project team will work with Program Management leadership on how information is reported and follow Program Management's direction for any changes on how LOP is reported.</p>	
<p>October 2021 #2 Contract C1136 MOD-00020 Division 20 Portal Widening and Turnback Project Additional Scope and Additional Requirements for the Division 20 Portal Widening and Turnback Project</p>	<p>The OIG recommends: 1. When Metro needs to expedite a project, include Operations in the initial planning phase early, prior to and during design so they can provide constant input during the design. 2. Explore with Operations if they need additional resources to dedicate full time to assist in the intense design, planning, and implementation pre-opening phases of Metro's rail infrastructure/capital projects, or other ways in which Program Management and Operations can work together to approach these projects to maximize cooperation, communication, and assistance. 3. Have the Legal Department review our designer contracts to determine if they are adequate to hold contractors accountable, enforceable, and require use of bonds and proof of adequate insurance to cover errors of this type and resulting in cost of this magnitude.</p>	<p>1. Project alignments were revised during planning phase to accommodate additional storage capacity and technical requirements required for turnback headways. As design progressed, Operations participated in frequent design review meetings. 2. Additional Operations resources during design phases would be beneficial and help produce more comprehensive reviews. 3. Project team is coordinating with County Counsel on review of designer contracts.</p>	
<p>October 2021 #3 Contract C1045 MOD-0 137 Purple Line Extension Sect. 1 Increased Well Maintenance at Western Shaft due to Groundwater Chemistry Impacts</p>	<p>see #4 for recommendation</p>		
<p>October 2021 #4 Contract C1045 MOD-00138 Purple Line Extension Sect. 1 Additional Dewatering Treatment and Discharge Impacts at Western</p>	<p>The OIG recommends that all dewatering change orders for this project should be evaluated or audited. The Geotechnical Baseline Report issued by the consultant to Metro was not accurate for the soil type, ground water, and hydrogen sulfide levels for each segment of Purple Line Section 1 and the consultant might be held liable for some of the costs of differing site conditions not correctly determined by the consultant. Unplanned dewatering site conditions also cost Metro \$15.8 mil. at the La Brea Station and \$16.8 mil. at the La Cienega Station in 2020 and 2019 respectively.</p>	<p>The dewatering MODs for WPLE-1 have been already been evaluated as part of the CN process. In order to minimize the potential for future DSCs on other Projects, consideration should be undertaken to expend more resources during Preliminary Engineering (PE) to more accurately project the actual conditions encountered. The costs of additional PE should be weighed against the increased base bid prices, or future Change Order costs if no additional PE efforts are undertaken. Valid additional costs to Metro, via the base bid or Change Order, will be incurred either way. It is premature at this time to hold the PE Consultant liable for all or a portion of the costs of this MOD.</p>	

ATTACHMENT B (July 2021)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
July 2021 #1 Contract C0980 MOD-00196 Regional Connector - Transit Corridor Project Construct the 2nd & Broadway Station Overbuild Load Transfer System	none		
July 2021 #2 Contract C0980 MOD-00202 Regional Connector - Transit Corridor Project Revise Communications Radio System Scope of Work- Construction	The OIG recommends that after installation of the new radio system that interface with Los Angeles fire, police and sheriff departments be tested and verified for their signal strength and connectivity.	Agreed, all radio systems will be fully tested and verified for signal strength and connectivity	
July 2021 #3 Contract C1045 MOD-0131 Purple Line Extension Sect. 1 Wilshire/Fairfax Station Subgrade Differing Site Conditions	The OIG recommends that after a DRB issues its recommendations that favor the contractor, Metro act swiftly to move forward with a change notice to the contractor and not delay payment to the contractor, less any credits owed to Metro. We understand in this particular case the contractor assigned a lower priority for processing this change notice over many others.	In this case there was no requirement for Metro to issue a Change Notice due to the DRB ruling. The Contractor (STS) chose to delay providing Metro with a cost proposal associated with the DRB ruling due to other higher Contractor priorities. After the eventual receipt of the DRB ruling proposal from the Contractor, the costs were negotiated, and a MOD issued (w/o any Change Notice being created). It should be noted that whether a Change Notice is issued or not, the Contractor has the right to submit a proposal whenever and for whatever they perceive as changed work (via a Request for Change). Section 1 has and continues to issue Change Notices in a timely manner when Metro recognizes merited changed scope of work.	
July 2021 #4 Contract C1152 MOD-0014 Purple Line Extension Sect. 3 Revisions to Westwood/UCLA Station Entrances – Design Only	none		

ATTACHMENT B (April 2021)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
April 2021 #1 Contract C0988 MOD-00253.3 Crenshaw/LAX Transit Corridor Project Landscape Changes – Park Mesa	The OIG recommends that we identify quickly the differences in cost between the new scope of work from the contract and finalize plans and the cost with the prime Contractor.	-Agree and recommendation will be incorporated into C/LAX Project Lessons Learned. -C0988 Contract Team has started to identify the differences in cost between the new scope of work from the contract. Additionally, new scope of work will only be processed if it is a safety related change.	
April 2021 #2 Contract C0980 MOD-00188 Regional Connector - Transit Corridor Project 2nd/Hope Pedestrian Bridge - Construction	no recommendation concerning this change order		
April 2021 #3 Contract C1120 MOD-0095 Purple Line Extension Sect. 2 Station and Bicycle Parking, Architectural Features Design and Construction Changes at Wilshire/Rodeo & Century City Constellation Stations	The OIG recommends that Purple Line, Section 3, be immediately evaluated to determine if the MRDC architectural updates and the Metro bike hub system changes have been incorporated into the Purple Line Extension Section 3 Transit project. This will ensure consistency, compliance with the MRDC, and cost assessments to be determined and negotiated at the earliest possible time.	Purple Line Sect #2 response: Noted. Purple Line Sect #3 response: The WPLE3 contract included the latest MRDC requirements for bike hubs at both stations at time of bid, which minimized changes to the WPLE3 contract.	
April 2021 #4 Contract C1120 MOD-0095 0100 Purple Line Extension Sect. 2 Century City Constellation Main Entrance - Construction	The large cost disparities between the ICE and a Contactor's proposal on high dollar transactions should continue to prompt further technical and commercial evaluation in order to arrive at a fair and reasonable price. The OIG recommends that the ICE be evaluated by the Estimating department to further evaluate the significant differences between the Contractor's proposal and their independent estimate utilizing both technical and commercial evaluation.	ESTIMATING response: Metro Estimating will review the ICE and CSP and work with V/CM and Project Management staff to evaluate the differences. Purple Line Sect #2 response: Project staff will continue to involve Estimating staff in scoping discussions to ensure that they have a full understanding of the scope of work for all Change Work.	

ATTACHMENT B (January 2021)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
<p>January 2021 #1 Contract C0980 MOD-00184 Regional Connector - Transit Corridor Project Expanded Duco Yard and Temple Street Sanitary Sewer Work</p>	<p>The OIG recommends that future contracts with the designer should include verification of sewers identified as abandoned, and to document the verification on the construction drawings if the cost of such verification is minor and the consequences of reliance on erroneous information is significant. Additionally, the OIG recommends that the as-built record drawings at the City be updated.</p>	<p>Planning and engineering need to rely on as-built records for much of their work. However, where key utilities are involved, it is best that their condition and status be validated during the preliminary design phase. This investigation is often expensive and not easily performed without site investigation. The engineer must use his/her judgement to determine which utilities require physical investigation and inspection. Project budget contingency should be set aside for utility discrepancies that may be discovered during construction. Agree that even minor utilities, improperly documented, can have a significant cost and/or schedule impact to a project and should be investigated early, to the extent possible. The City is the best entity to ensure that underground maps are complete.</p>	<p>No further action from Regoinal Connector as project design has already been completed. However, efforts are continually made to perform potholing investigations for verificatoin prior to construction so as to avoid impacts to schedule should discrepancies be found.</p>
<p>January 2021 #2 Contract C1045 MOD-00121 Purple Line Extension Sect. 1 Alternate Soil Disposal</p>	<p>California laws, including Senate Bill 1383 of 2016 set mandatory targets to reduce waste going to landfills. Metro developed a recycling policy (GEN 51) in response to State recycling goals and to support Metro's sustainability goals. The Conditional Use Permit for the Chiquita Canyon Landfill was set to expire and the Landfill operator sought a new permit, which was granted in July, 2017. The new permit requirements limits the rate of tonnage of dumping allowed, hours of operation, and the county set other multiple requirements that Chiquita Canyon must adhere. The OIG recommends:</p> <ol style="list-style-type: none"> 1. Construction waste disposal options are utilized to minimize project costs and to help achieve the reduction goal of a 75% reduction in waste by 2025; 2. Project teams work very closely with the Metro Sustainability Department, State, Los Angeles County, other regulators, landfill owners, and contractor's personnel, to determine options consistent with GEN 51 for the reuse of soils and construction debris in the current or other construction sites; 3. When a Board member has a matter come before them at their respective municipalities that can potentially effect Metro projects, if they would give notice to Metro of the matter, Metro can determine how its projects will be impacted and possibly address the matter with the municipality or 3rd party prior to the matter being approved including possibly negotiate that the terms of a permit not allow price increases or other impacts on Metro projects where contractual commitments have previously been negotiated in reliance on previous conditions; 4. LA Metro evaluate how other LA Metro projects for which a contract was entered may be impacted by the newly imposed landfill mitigations and higher fees. 	<p>Metro acknowledges the recommendations listed and provides the following responses below:</p> <ol style="list-style-type: none"> 1.Per contract, the project must divert/recycle 75% of waste. Purple Line Section 1 has diverted 100% of excavated clean material on the project to be reused as beneficial cover or fill at offsite projects. 2.The Purple Line Section 1 project has a member of the Metro Environmental Compliance and Sustainability Department (ECSD) on staff. This team member updates project management and contractors on opportunities to reduce waste impacts as they become available across the county. 3.Acknowledged 4.ECSD management will review awarded projects and available facilities and make recommendations on where to make changes to disposal practices as needed. 	
<p>January 2021 #3 Contract C1120 MOD-0091 Purple Line Extension Sect. 2 Increase UPS Spare Capacity at Wilshire Rodeo and Century City Constellation Stations</p>	<p>The OIG recommends that immediately prior to sending out an RFP, Metro should insure that the most current MRDC is used.</p>	<p>In this case, the updated MRDC Section 8 was added to the RFP near the end of the solicitation period, but conflicts with other contract documents were not identified because of the late issuance of the update. Staff agree that all future changes to the MRDC should be coordinated by Metro Engineering and issued before future RFPs are released.</p>	

ATTACHMENT B (January 2021)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
January 2021 #4 Contract C1152 CO-0005.1 Purple Line Extension Sect. 3 VA Hospital Replacement Parking for Lot 42 During Station Construction Phase	The OIG recommends that the Project office and Real Estate continue to work closely and aggressively to come to a full resolution with the VA hospital and the contractor on the modified costs.	Agree	

ATTACHMENT B (October 2020)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
<p>October 2020 #1 Contract C0988 MOD-00485 Crenshaw/LAX Transit Corridor Project Case 5 Bedding Required by LABOE</p>	<p>Since the 'Green book' states the support and materials for sewer and storm drain pipe are to be encased in concrete, the OIG recommends that the LA Metro rail standard drawing US-014, be updated to reflect the required City standard and Metro may negotiate with the LABOE to adopt a different standard for specific projects as warranted.</p> <p>We further recommend, as discussed in previous reports, that Metro study the large discrepancies between the Metro ICE and the award amounts to determine if there is a method by which those discrepancies can be narrowed. This recommendation applies to many of the Spot Checks reviewed in this Report, and is based also on a Metro audit completed by the Management Audit Services Department that noted significant discrepancies in these amounts to be a frequent occurrence.</p>	<p>Recommendation will be incorporated into C/LAX project Lessons Learned.</p>	
<p>October 2020 #2 Contract C1045 MOD-00111 Purple Line Extension Sect. 1 Fairfax Paleo Zone Modified Limits</p>	<p>The OIG recommends future GBR's include a more comprehensive underground site assessment to determine a better approximation of the marine and paleo geological layers. In this instance, a robust underground assessment would have avoided the costly change order. However, the additional excavation costs would have been included in the higher base bid value.</p>	<p>Recommendation will be incorporated into PLE1 project Lessons Learned.</p>	
<p>October 2020 #3 Contract C1120 MOD-00080 Purple Line Extension Sect. 2 Demobilization and Remobilization due to COBH Moratorium</p>	<p>The MOA between Metro and COBH imposes additional restrictions on Metro and adds costly change orders to the original contract.</p> <p>The OIG recommends Metro adopts a standardized MOA for use in negotiations with all jurisdictions within Los Angeles County and utilizes this agreement for every construction project going forward in each respective jurisdiction and that budget estimates for projects should be revised as necessary to take into consideration MOAs entered into.</p>	<p>Agreed.</p>	
<p>October 2020 #4 Contract C1151 MOD-0004.1 Purple Line Extension Sect. 3 Increase Ground Water Treatment Plant Capacity at Tail Track Exit Shaft</p>	<p>It is the OIG's understanding that water pump tests and water quality tests were performed, but they were performed at the original location, the Army Reserve site, which is no longer the correct shaft location. Now the site is at the Veterans Administration property. A change in location can greatly affect both the levels and quality of the groundwater, thus increasing the revised dewatering process.</p> <p>It is critical that the Real Estate Department be included at the earliest possible time in negotiating the property requirements for a project. Having to change location plans after a contract award can have significant scheduling and expense consequences.</p>	<p>The location of the Tail Track Exit Shaft had to move from an environmentally cleared site occupied by the Army reserve site to the US Department of Veterans Affairs West Los Angeles campus when it became evident that the US Army Reserve was unwilling to allow the use of this location for either construction laydown or a permanent Metro Facility. Metro Real Estate and Project staff successfully negotiated with the Department of Veterans Affairs to enable relocation of this construction laydown area and permanent facility to their West Los Angeles Campus.</p>	

ATTACHMENT B (October 2020)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
<p>October 2020 #5 Contract C1151 MOD-0005 Purple Line Extension Sect. 3 Addition of Sepulveda Staging Area to Compensate VA Site Reduction</p>	<p>The Purple Line Extension 3 was a 'next decade project' and was accelerated to be completed in the next 5 years with many project processes that had to be compressed to meet the schedule. We also understand that the real estate acquisition process is contingent on the funding being in place.</p> <p>The real estate acquisition process and all other real estate arrangements must be negotiated as early as possible and negotiate those property rights strategically to ensure we have our real estate needs met at the earliest and least expensive manner possible.</p>	<p>The space available for staging at the Tail Track Exit Shaft on the Department of Veterans Affairs Campus is limited; being located in a nationally designated historic district. Metro Real Estate and Project Staff have and are working closely together, in a timely manner to ensure real estate acquisitions are coordinated with project need dates to minimize overall risk and cost to Metro in delivering the project.</p>	

ATTACHMENT B (August 2020)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
August 2020 #1 Contract C1045 MOD-00095 Purple Line Extension Sect. 1 Transit Project: Phase 5 Golder EOR Mitigation Plan Implementation	<p>The OIG is in agreement with applying extra safety precautions that the Metro project office has put forward. Where conditions are relatively unique to the tunneling industry, more prescriptive specifications for means and methods in these zones is warranted.</p> <p>Since the Contractor, Golder Gas, performed the entire mitigation plan including removal and mitigation, the OIG recommends that LA Metro ensure that Golder Gas is held contractually, jointly, and severally liability for any future incident involving gas in the area where the soil vapor extraction wells and the monitoring wells are installed and abandoned. This is the common practice in environmental cases where a "consulting expert" is hired to monitor and mitigate a hazardous substance issue.</p>	<p>The Section 1 Project will review the indemnification text issued to Golder that was required by STS in order for Golder to proceed with the work. This indemnification will determine what Golder's future obligations are.</p>	
August 2020 #2 Contract C1045 MOD-00106 Purple Line Extension Sect. 1 Center Muck Shaft at La Brea (ECI-03)	<p>The OIG recognizes that this type of shaft at the La Brea station can serve a legitimate purpose and that the OIG recommends that use of such methods should be considered and contemplated in future project specifications and a reserve for same should be made when the savings in time, expense, and safety outweigh the cost of such a shaft.</p>	<p>OIG comment received will be included in the lessons learned.</p>	
August 2020 #3 Contract C1045 MOD-00107 Purple Line Extension Sect. 1 Center Muck Shaft at La Brea (ECI-03)	<p>The OIG is concerned that a bid of 40% over an ICE, when you are in a noncompetitive circumstance, may not be a good faith offer or bad communication on specifications. Such behaviors can have the effect of damaging a relationship during an early phase of construction and create distrust that can harm project collaboration in the future. We appreciate a contractor's willingness to proceed on work even without a commitment from Metro in some cases for the payment for that work, but recommend the contractor exercise greater care in formulating its proposals and that Metro be clear and fair but diligent and firm in its ICE calculations and negotiations stance.</p>	<p>OIG comment received. Contractor will be reminded to have appropriate personell attend the fact finding and provide timely complete CSP in order to resolve issues in a collaborative manner.</p>	

ATTACHMENT B (August 2020)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
<p>August 2020 #4 Contract C1120 MOD-00073 Purple Line Extension Sect. 2 Century City Constellation Station Track work Extension</p>	<p>1. The OIG is concerned that a bid is almost 3 times over the ICE, when you are in a noncompetitive circumstance, may not be a good faith offer or bad communication on specifications. Such behaviors can have the effect of damaging a relationship during an early phase of construction and create distrust that can harm project collaboration in the future. We appreciate a contractor's willingness to proceed on work even without a commitment from Metro in some cases for the payment for that work, but recommend the contractor exercise greater care in formulating its proposals and that Metro be clear and fair but diligent and firm in its ICE calculations and negotiations stance.</p> <p>LA Metro is having to absorb the cost of track extension change orders that arose due to errors and omissions on the part of the engineering consultant WSP. The OIG was informed that WSP miscalculated the braking distance in the initial project definition drawings that were supplied to the construction contractor. Metro will have to cover this expense with the contractor, but should look to the design engineering firm for reimbursement to Metro of the costs it would not have had to otherwise incur less amounts saved or mitigations.</p> <p>2. The OIG additionally recommends that Metro review the current Metro Rail Design Criteria (MRDC) compared to the newly released FRA track design standards for accommodating a train entering a stub-end to determine if any modification or update to our MRDC is warranted.</p>	<p>1. If a Cost and Schedule Proposal (CSP) is significantly higher than the Independent Cost Estimate (ICE), Metro's Contract Administrator and the Project Team engages in further meetings with the Contractor to clarify scope in order to determine the source of the discrepancies between the two estimates. These meetings are professional in nature, and often result in favorable resolution on a price that is somewhere between the ICE and the revised CSP. This process ultimately leads to the execution of mutually agreed upon Contract Modifications, and avoids costly disputes related to Changed Work.</p> <p>Related to the cost of the change, if WSP had calculated the braking distance correctly, the Contractor's proposal price would have included the cost for the trackwork that was recently added by Contract Modification. As a result, the awarded contract value would have been slightly higher, and the project contingency slightly lower at Notice to Proceed. The only additional cost that this error by WSP may have created is a theoretical premium for paying for added trackwork in a non-competitive environment, which would be difficult to prove. It should be noted that the difference between the executed Contract Modification price and the ICE was about 17%, or \$171,000. As a result, it is likely that it would be difficult for Metro to determine if it paid a non-competitive premium. That said, the recommendation will be discussed with senior executive management in VCM and Program Management to determine if any action against WSP will take place.</p> <p>2. This recommendation will be referred to Metro Engineering for consideration.</p>	

ATTACHMENT B (April 2020)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
<p>April 2020 #1 C0980 MOD-00161 Regional Connector - Procure Medium Attenuation Fasteners in Lieu of Standard Direct Fixation Rail Fasteners for the 2nd & Broadway Crossover</p>	<p>Regional Connector project is very unique because of all the existing historical buildings above the construction. Noise pollution has become a major concern for urban transit dwellers and authorities. The rule of thumb is a 10decibel technical increase in noise is heard by the human ear as "doubled" in loudness. When constructing underground for tunnels and stations the Environmental Impact Report must remember to always mitigate sound and vibration to protect the potentially impacted fragile surface buildings.</p> <p>The OIG recommends this scenario be written into the Lessons Learned file for future similar situations when constructing under historic or special case existing buildings.</p>	<p>The Regional Connector Project has extensive vibration mitigation elements included in the design where the operating guidway passes nearby sensitive receptors including recording studios, music venues and hotels. The project also requires that noise and vibration monitoring be performed during construction near sensitive facilities.</p> <p>The lesson learned and responded to in the referenced Contract Modification, is that information gathered during construction monitoring should be used to adjust the designed mitigations where field conditions indicate they are necessary.</p>	<p>Completed with issuance of subject contract modification. Equipment to be installed 3rd quarter 2020</p>
<p>April 2020 #2 C1045 MOD-00098 Purple Line Sect. 1 Additional Air Scrubbers at Fairfax Station</p>	<p>The OIG recommends further questioning to Southern California AQMD to determine why on a previous Metro construction contract (at the same location) they set the emission limit at 50 parts per billion, and the published standards are set at an emission limit of 30 parts per billion. On this contract the limits are set at 15 parts per billion. The inconsistency of the emissions limit should be taken under consideration and request in writing from AQMD why the standard emission limit could not be applied to this permit.</p> <p>The OIG further recommends in future construction pre-bid meetings, disclose to all potential contractors that the AQMD permit values necessary for the technical specification, "Temporary Construction Ventilation for Scrubber Units" has varied in the recent past and to verify the amount with an AQMD representative. If possible a commitment needs to be obtained from AQMD by the contractor at the time of submission of a bid amount, that the standard is firm for a defined period.</p>	<p>The emissions limit for equipment was set at the time the Contractor submitted the specific ventilation plan to SCAQMD for permit.</p> <p>The SCAQMD does not have a set standard for hydrogen sulfide, but the states standard is 30 parts per billion. SCAQMD develops their requirements based on specific site conditions. Our EIR states Metro and its contractors will set and maintain work equipment and standards to meet SCAQMD standards.</p> <p>A letter will be sent to SCAQMD for clarification on how SCAQMD can consistently apply emissions regulations for hydrogen sulfide for Metro's future projects.</p>	
<p>April 2020 #3 C1120 MOD-00064 Purple Line Sect. 2 Geotechnical Instrumentation Installation and Monitoring AT&T and Beverly Hills High School</p>	<p>The OIG recommends that the independent estimator visit the field location concerning where the work for this change order will occur. The construction manager should walk the estimator through the scope of the changes for which they are developing a cost estimate. The independent estimate was a 126.7% lower than the negotiated price. Where such significant discrepancies in price estimates exist, either the estimator for Metro, or the estimator for the contractor needs to re-evaluate the scope of the change order.</p>	<p>Agreed. Moving forward the estimating group will endeavor to work even more closely with available subject matter experts to assure a thorough understanding of scope and of the engineering and construction processes involved.</p>	
<p>April 2020 #4 C1151 MOD-00001 Purple Line Sect. 3 Revise the Tail Track Exit Shaft Location from US Army Reserv to Veterans Affairs Property</p>	<p>If the Army Reserve location had been negotiated prior to the contract award, these amounts might have been included in the original bid, although the price then and now might have been the same for this different location.</p> <p>The OIG recommends Real estate arrangements should be negotiated as early as possible.</p>	<p>Metro agrees with the OIG's comment regarding the price of the change. The cost would roughly be the same whether it was negotiated prior to contract award or after award. We agree that real estate arrangements (agreements) should be negotiated as early as possible. The project initiated contact with the property owner for the Exit Shaft property acquisition after the project was identified to be accelerated from the original 2035 Revenue Service Date. Metro did engage in talks with the VA early in the Project but obtaining VA approval to access their property has not been without a few challenges that Metro was able to overcome.</p>	

ATTACHMENT B (January 2020)

OIG REPORT/ SPOT CHECK # MOD #	RECOMMENDATIONS	MANAGEMENT'S RESPONSES	COMPLETION DATE
Jan 2020 / #1 C0988-MOD-00437 Crenshaw/LAX UG1 (H2S) Ventilation Fans - Construction	none		
January 2020 #2 C0980 MOD-00154 Regional Connector - Acoustical Treatments for Areas Not on Finish Schedule	none		
January 2020 #3 C1045 MOD-00089 Purple Line Sect. 1 Development and On Site Validation of the Selected Gas Mitigation Option for M13	<p>While the soil at every site is unique, it is possible to create a standard for testing soils for gasses. There is no current rule or technical specification within Metro criteria for extraction of CH₄ or H₂S from the soil.</p> <p>The OIG recommends after the final report is submitted by the contractor, that a technical specification for testing be developed and written into the MDRC to use in the future.</p>	<p>PLE1 Final M13 Mitigation Report will be forwarded to Metro Geotechnical Department for their review and further processing.</p>	
January 2020 #4 C1045 MOD-00090 Purple Line Sect. 1 Oil Well Investigation In Lieu of TBM Probe Ahead	<p>The implementation of the drilling and magnetometer survey from Section 1 has been incorporated into Purple Line Extension Section 2 and 3 contracts.</p> <p>The OIG recommends that the procedures implemented for locating tanks, pipes and other abandoned waste be added to the Lessons Learned database.</p> <p>The OIG further recommends that Metro evaluates whether to pursue recovery for waste removal costs under CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act, also known as Superfund. Passed in 1980). The OIG recommends that Metro's Engineering Program Management provide information on this matter to Metro's Legal department to assist in making this determination and potentially pursuing this recovery.</p>	<p>PLE1 implemented methodologies for locating known tanks, pipes and other abandoned waste will be added to the Lessons Learned database. PLE1 notes that the hazardous waste removal is relatively small/negligible compared with the overall volume of soil removed. After reviewing the potential ROI on pursuing legal actions against any potential responsible parties for cost recovery the current determination based on the available data is that it is not worth the effort and cost at this time. However, it was decided that Metro County Counsel would provide a preliminary review on the issue and it would be revisited in the future.</p>	

Office Of Inspector General Construction Change Order Spot Check Report

Presented By
Karen Gorman
Inspector General

January 2022

Construction Committee

Los Angeles County Metropolitan Transportation Authority



Spot Check 1

1 - Regional Connector Transit Corridor

- ❖ Metro Eastside Access Improvement Project "Segment 2" Esplanade and other Improvements along Alameda Street – Construction Only

\$4,850,023

- Utilizing the Regional Connector Contractor to construct the Eastside Access Improvement Project plans.

No Recommendations

January 2022

Construction Committee

Los Angeles County Metropolitan Transportation Authority



Spot Check 2

2 - Division 20 Portal Widening Turnback Project

- ❖ Site Conditions - Connections to Existing Ductbanks and Unknown Utilities Impacts
\$2,540,860

Work to be completed

- continue the work of utility relocations
- construct several large concrete manholes, and
- install high voltage ductbanks that feed into the new traction power substation

Recommendation:

Continue to track Contractor's time and materials costs while negotiating the cost and schedule proposal to finalize the change order.

Spot Check 3

File #
2021-0780

3 - Change Order for Purple Line Section 2

- ❖ Century City Constellation Station Storm Drain and Sanitary Sewer Relocation Construction
\$5,436,000

Work to be completed

- Construct the New Storm Drain and Relocate Existing Sanitary Sewer at the Century City Constellation Station

No Recommendations

January 2022

Construction Committee

Los Angeles County Metropolitan Transportation Authority



Spot Check 4

File #
2021-0780

3 - Change Order for Purple Line Section 3

- ❖ Replacement Parking at VA Hospital Lot 42 During Station Construction

\$2,570,689

Work to be completed

- Refurbish four VA parking lots
- Addition of bus shelter and ADA walkway
- ADA-compliant parking section with multiple parking stalls

Recommendation:

Instruct the Contractor to timely submit cost proposals, enter negotiations, and sign agreements before work is performed so Metro can process the work order close in time to work being performed, not only to pay the contractor but to help ensure the sub-contractors are paid timely.

January 2022

Construction Committee

Los Angeles County Metropolitan Transportation Authority



Spot Check Schedule Comparison

File #
2021-0780

Schedule Comparison: new delegated process vs. former Board approval process

PROJECT	Title of Change Order	Time Saved Executed date to Board Mtg.	NEW Delegated Process final SOW to Executed date	Former Board Approval Process
REGIONAL CONNECTOR	Metro Eastside Access Improvement Project "Segment 2" Esplanade and other improvements along Alameda Street – Construction Only	38	24	62
DIVISION 20 PORTAL WIDENING TURNBACK	Differing Site Conditions – Connections to Existing Ductbanks and Unknown Utilities	Undetermined		
WESTSIDE PURPLE LINE SECT 2	Century City Constellation Station Storm Drain and Sanitary Sewer Relocation Construction of MOD 70 Design	Undetermined		
WESTSIDE PURPLE LINE SECT 3	Replacement Parking at VA Hospital Lot 42 During Station Construction	Undetermined		

Spot Check Costs

Summary of Selected Change Order Costs

Four OIG spot checks of Change Orders / Modifications reported

1 Change Order for Regional Connector Transit Corridor

- ❖ Metro Eastside Access Improvement Project "Segment 2" Esplanade and other improvements along Alameda Street – Construction Only = \$ 4,850,023

2 Change Order for – Division 20 Portal Widening Turnback

- ❖ Site Conditions – Connections to Existing Ductbanks and Unknown Utilities = \$ 2,540,860

3 Change Order for Purple Line Section 2

- ❖ Century City Constellation Station Storm Drain and Sanitary Sewer Relocation Construction of MOD 70 Design = \$ 5,436,000

4 Change Order for Purple Line Section 3

- ❖ Replacement Parking at VA Hospital Lot 42 During Station Construction = \$ 2,570,689