



EXECUTIVE DECISION DOCUMENT

GENERAL MANAGER APPROVAL: <i>R. M. Pann</i> 15 May 2019		GENERAL MANAGER ACTION REQ'D: Yes		
DATE: 5/7/2019		BOARD INITIATED ITEM: No		
Originator/Prepared by: Bryant Fields Dept: Maintenance and Engineering <i>B. Fields</i> Signature/Date: 5/15/2019	General Counsel <i>[Signature]</i> 5/15/19 []	Controller/Treasurer <i>[Signature]</i> 5/16/19 []	District Secretary []	BARC <i>[Signature]</i> 5.16.2019 []

Request for Authority to Execute Change Order No. 004 to Contract No. 15EJ-171, 34.5KV Cable Replacement M-Line MVS Switching Station and MTF, MSS, MPS and MTW Substations

PURPOSE:

To authorize the General Manager to execute Change Order No. 004 to Contract No. 15EJ-171, 34.5KV Cable Replacement M-Line MVS Switching Station and MTF, MSS, MPS and MTW Substations, in an amount not to exceed \$3,900,000.00 and which includes a sixty-nine (69) compensable calendar day extension of the Contract duration.

DISCUSSION:

On August 9, 2018 the Board of Directors authorized the General Manager to award Contract No. 15EJ-171, 34.5KV Cable Replacement M-Line MVS Switching Station and MTF, MSS, MPS and MTW Substations, to DMZ Builders Co., Inc. in the amount of \$79,195,100.00. This Contract is for the upgrade of the aging 34.5 kV cable system, and includes replacement and installation of sections of 34.5 kV feeder cable circuits (MLC and MRC circuits), on M2 and M1 tracks between MVS Switching Station, MBP, MGP, MTF, MSS, MPS, and MTW Substations.

Change Order No. 004, in an amount not to exceed \$3,900,000.00, is required for the acceleration of the replacement of the existing 34.5 kV cable on the M-Line (M-1 Circuit), between mile posts 11.11M1 (vicinity of 24th Street Mission Station) and 7.01M1 (vicinity of Embarcadero Station). Under the existing contract, M1 tunnel work was scheduled to be completed in October 2022. This change provides for a 16-month acceleration in the M1

tunnel, with a new completion date of June 2021 for work between mile posts 11.11M1 and 7.01M1.

Although the Change Order will accelerate the delivery of the M1 circuit from the switching station near 24th street to the west end of the Transbay Tube by 16 months, it will extend the overall contract duration by 69 days. This is because the contractor is required to revise their work planning and re-sequence their crews and equipment for the accelerated delivery of the M1 circuit.

The acceleration of this contract is necessary because of changes associated with TBT Seismic Retrofit Project. The TBT Seismic Retrofit Project and the 34.5KV M-Line Cable Replacement Project share risks to the operational reliability to the 34.5KV Power Cable System and train service.

The original contract for 34.5KV Cable Project included construction staging and sequencing that aligned with Transbay Tube Seismic Retrofit Project and other tunnel projects occurring during the same period. In order to minimize impacts to redundant power sources, the projects were planned such that they would be in the same tunnel side before moving onto the next circuit in the second tunnel.

After this project's award, the TBT Seismic Retrofit project determined that acceleration was required for their project. However, this TBT acceleration plan requires that the construction work be performed alternately (back-and-forth) between each tunnel before one tunnel is fully completed. This increases likelihood of the 34.5KV circuits being accidentally damaged and causing service interruptions on M-line.

In addition, during the period of awarding the contract, the M-1 circuit had a major fault near the BART 24th Street Station. BART Maintenance strongly recommends that the Project Team revise the sequencing and accelerate the installation of the new circuit to minimize outages of the old and stressed cables.

This change order cost represents approximately 4.99% of the base amount and will accelerate the delivery of the M1 circuit from the switching station near 24th street to the west end of the Transbay Tube by sixteen (16) months. It will accommodate the TBT Project's goal to accelerate their project schedule and will also reduce the risk of potential service interruptions on the most critical areas of the M line.

CAPITAL FISCAL IMPACT:

Funding in the amount of \$3,900,000 for the additional change order for Contract No. 15EJ-

171 is included in the total project budget for FMS# 15EJ450 M-Line 34.5KV Replacement Phase II.

The table below lists funding assigned to the referenced project and is included to track funding history against spending authority. Funds needed to meet this request will be expended from the following sources:

Fund Description	Amount
Various FTA Grant Sources	1,520,000
Local Area Bridge Toll	80,000
BART Funds	300,000
Measure RR GOB	117,134,000
Total	119,034,000

As of May 14, 2019, \$119,034,000 is the total budget for this project. BART has expended \$6,828,753 and committed \$79,694,498 and reserved \$56,297 to date. This action will commit \$3,900,000 leaving an available fund balance of \$28,554,452 in these fund sources for this project.

The Office of Controller/Treasurer certifies that funds are currently available to meet this obligation.

This action is not anticipated to have any Fiscal Impact on unprogrammed District reserves.

ALTERNATIVES:

The Board may elect not to authorize the execution of this Change Order. Failure to issue this Change Order could lead to increased risk to operational reliability, extended service interruptions, and cascading failures to existing 34.5KV cable system, thus increasing the final cost to the District.

RECOMMENDATION:

Recommend that the Board approve the following Motion:

MOTION:

The General Manager is authorized to execute Change Order No. 004 for Contract No.

15EJ-171, 34.5KV Cable Replacement M-Line MVS Switching Station and MTF, MSS, MPS and MTW Substations, with DMZ Builders Co., Inc. in the amount not to exceed \$3,900,000.00 and to extend the Contract completion date by 69 calendar days.

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ATTACHMENT #1

CHANGE ORDER SUMMARY

BACKGROUND

Name of Contractor: DMZ Builders Co., Inc.

Contract No./NTP: 15EJ-171 / September 28, 2018

Contract Description: 34.5KV Cable Replacement M-Line MVS Switching Station and MTF, MSS, MPS and MTW Substations

Percent Complete as of 3/31/2019 5.19%

<u>COST</u>	<u>% of Award</u>	<u>CO Totals</u>	<u>Contract Amount</u>
Original Contract Award Amount			\$79,195,100.00
Change Orders:			
Other than Board Authorized C.O.s	.063%	\$49,547.10	
Pending Board Authorized C.O.s	4.92%	<u>\$3,900,000.00</u>	
Subtotal of all Change Orders	4.99%	\$3,949,547.10	
<u>Revised Contract Amount:</u>			\$83,144,647.10

SCHEDULE

Original Contract Duration:	1800 days
Time Extension to Date:	0 days
Time Extension Due to Approved COs:	69 days
Revised Contract Duration	1869 days

SUMMARY REASON FOR THESE CHANGE ORDER(S)

Reduce the risk to BART operations on M-Line from the PG&E feed at the BART switching station near 24th Street to the west end of the Transbay Tube. The ongoing seismic retrofit at the Transbay Tube in both tunnels and the potential for accidental damage or failure due to the deteriorating cable assets, acceleration of new higher capacity circuit in the M1 Tunnel reduces the risk of safety issues with cable asset(s) and/or personnel, extended service interruptions, and cascading failures to the existing traction power system.