

THIS PRINT COVERS CALENDAR ITEM NO.: 10.4

**SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY**

DIVISION: Streets

BRIEF DESCRIPTION:

Authorizing the Director of Transportation to execute Modification No. 5 to Contract No. 1304, Muni Metro System King Substation Upgrade, with DMZ Builders to adjust the quantity to reflect the actual quantity performed and compensate the Contractor for extended overhead and additional costs due to differing site conditions, substation improvements and resilience upgrades, and design errors and omissions, in the amount of \$1,140,311.35, increasing the total Contract amount to \$16,513,277.35; and to extend the contract term by 135 days, to a total of 1,810 days to Substantial Completion to close out the Contract.

SUMMARY:

- On April 17, 2018, the SFMTA Board of Directors adopted Resolution No. 180417-061 awarding Contract No. 1304, Muni Metro System King Substation Upgrade, to DMZ Builders for an amount of \$11,398,450 and a term of 365 days.
- The Contract upgrades the King Substation to meet demand for electrical power for Muni light rail vehicles serving Oracle Park, the Chase Center, and the Central Subway, upgrade electrical distribution circuits, and create spare electrical circuits to meet future needs.
- The Contract previously has been amended four times, increasing the Contract Amount by a total of \$3,974,516 to \$15,372,966, and extending the Contract term by 1,310 days.
- This Contract Modification increases the Contract Term by 135 days and Amount by \$1,140,311.35 to adjust the quantity in the Schedule of Bid Prices and to compensate the Contractor for extended overhead and additional costs to close out the Contract.

ENCLOSURES:

1. SFMTAB Resolution
2. Contract Modification No. 5
3. Project Budget and Finance Plan
4. SFMTA Warriors/Chase Event Center Resolution No.15-154, [2015_1103_Resolution.pdf](https://www.gsweventcenter.com/2015_1103_Resolution.pdf) ([gsweventcenter.com](https://www.gsweventcenter.com))
5. Warriors/Chase Event Center Final Subsequent Environmental Impact Report (Muni UCSF/Mission Bay Station Variant), [Responses to Comments on the DSEIR on the Event Center and Mixed-Use Development at Mission Bay Blocks 29-32](https://sfplanning.s3.amazonaws.com/Responses%20to%20Comments%20on%20the%20DSEIR%20on%20the%20Event%20Center%20and%20Mixed-Use%20Development%20at%20Mission%20Bay%20Blocks%2029-32.pdf) (sfplanning.s3.amazonaws.com)
6. Warriors/Chase Event Center Mitigation Monitoring and Reporting Program, https://www.gsweventcenter.com/OCIICommissionPublicMeetings/2015_1103_Adopt70_ExhibitB.pdf

APPROVALS:

DATE

DIRECTOR  September 10, 2024

SECRETARY  September 10, 2024

ASSIGNED SFMTAB CALENDAR DATE: September 17, 2024

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PURPOSE

The purpose of this calendar item is to authorize the Director of Transportation to execute Modification No. 5 to Contract No. 1304, Muni Metro System King Substation Upgrade, with DMZ Builders to adjust the quantity to reflect the actual quantity performed and compensate the Contractor for extended overhead and additional costs due to differing site conditions, substation improvements and resilience upgrades, and design errors and omissions, in the amount of \$1,140,311.35, increasing the total Contract amount to \$16,513,277.35; and to extend the contract term by 135 days, to a total of 1,810 days to Substantial Completion to close out the Contract.

STRATEGIC PLAN GOALS AND TRANSIT FIRST POLICY PRINCIPLES

The Work to be performed under Contract Modification 5 to Contract No. 1304 supports the following goals in the SFMTA Strategic Plan and Transit First Policy Principles:

Strategic Goals:

4. Make streets safer for everyone.
5. Deliver reliable and equitable transportation services.
6. Eliminate pollution and greenhouse gas emissions by increasing use of transit, walking, and bicycling.
9. Fix things before they break, modernize systems and infrastructure.

This item supports the following Transit First Policy Principles:

1. To ensure quality of life and economic health in San Francisco, the primary objective of the transportation system must be the safe and efficient movement of people and goods
2. Public transit, including taxis and vanpools, is an economically and environmentally sound alternative to transportation by individual automobiles. Within San Francisco, travel by public transit, by bicycle and on foot must be an attractive alternative to travel by private automobile.
9. The ability of the City and County to reduce traffic congestion depends on the adequacy of regional public transportation. The City and County shall promote the use of regional mass transit and the continued development of an integrated, reliable, regional public transportation system.
10. The City and County shall encourage innovative solutions to meet public transportation needs wherever possible and where the provision of such service will not adversely affect the service provided by the Municipal Railway.

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DESCRIPTION

Background

The Muni Metro System King Substation Upgrade (Project) upgraded the existing King Substation to provide sufficient electrical power for Muni light rail vehicles. Due to the anticipated developments and projects in the surrounding area, including the Central Subway, Oracle Park, and the Chase Center, the demand for light rail service is expected to increase, potentially overloading the existing feeder circuits in the current King Substation. The Project addressed these issues by upgrading the electrical distribution circuits and creating spare electrical circuits for future anticipated needs. As part of the project, the SFMTA also procured a temporary mobile substation to provide traction power while the King Substation was being upgraded.

On April 17, 2018, the SFMTA Board of Directors adopted Resolution No. 180417-061, authorizing the award of SFMTA Contract No. 1304 to DMZ Builders in the amount of \$11,398,450 with a Contract term of 365 days from the date of commencement of the Contract Time to Substantial Completion.

The SFMTA issued the Notice to Proceed to the Contractor on June 12, 2018, establishing June 13, 2018, as the official date of commencement of work, and June 12, 2019, as the required substantial completion date.

Prior Contract Modifications

Contract Modification No. 1 approved payment for a list of specific, additional direct costs incurred by the Contractor that coincided with the PG&E delays to the critical path, including double handling of materials and equipment to and from storage locations; additional demobilization and remobilization effort; and additional storage costs for a total of \$327,687. This modification also paid for additional required work unrelated to the PG&E delay, including new work necessary to maintain SCADA functionality, for a total of \$620,000. On March 26, 2020, the Director of Transportation approved Contract Modification No. 1 for \$942,687.

Contract Modification No. 2 added a new Allowance Bid Item for the implementation of additional safe work practices due to COVID-19 emergency and was not related to delays on the contract. On July 12, 2020, the Director of Transportation approved Contract Modification No. 2 for \$118,000.

Contract Modification No. 3 compensated the Contractor for additional verified office overhead costs of \$363,829 and increased the term of the Contract by 360 days, based on the suspension of the contract field work required by the PG&E delays. On April 20, 2021, the SFMTA Board of Directors adopted Resolution No. 210420-056, authorizing the Director of Transportation to execute Contract Modification No. 3.

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Contract Modification No. 4 agreed to a global settlement of all Contractor's delay claims through September 30, 2022, which were primarily caused by PG&E activity, extending the Contract Term by 950 Days to January 12, 2023, and increasing the Contract Amount by \$2,550,000 for a total Contract Amount not to exceed \$15,372,966. On December 13, 2022, the SFMTA Board of Directors adopted Resolution No. 221213-119, authorizing the Director of Transportation to execute Contract Modification No. 4.

Current Modification

The final stage of the project, rebuilding the permanent King Substation, experienced several unforeseen conditions and owner directed changes required for the substation to meet SFMTA substation standards. In Contract Modifications No. 4, SFMTA negotiated a global settlement, which addressed all delay claims through September 30, 2022 and extended the contract substantial completion date to January 12, 2023. The current contract modification would resolve all later changes to scope and schedule on the project and extend the contract Substantial Completion to May 27, 2023.

The majority of the work items were completed after the PG&E delays were resolved and the Mobile Substation was up and running, allowing the permanent King Substation to be taken offline. Many of the activities addressed in this contract modification are related to minor modifications and adjustments required while reconstructing and upgrading the equipment within the King Substation building. These changes included exterior door modifications, water intrusion prevention and mitigation, surge arrestor modifications and concrete slab modifications.

Another major upgrade was redesign and construction of an ADA compliant entrance and walkway around the substation. Significantly more restoration and paving work was needed at the site of the mobile substation due to additional seismic anchoring required by the Port of San Francisco which is the jurisdictional agency of the International Longshore and Warehouse Union parking lot in which the substation resides. Relocation of the Mobile Substation back to SFMTA Burke facility was another omission from the original contract that this contract modification addresses.

A portion of the traction power cables that were installed for this project were located in manholes and duct banks that were constructed by neighboring projects. The contractor for the King Substation project was not able to access these manholes to complete cable pulling and testing until the neighboring projects turned over this infrastructure to SFMTA. This caused a delay to substation completion, and once the King Substation Project began pulling cable, there were unfinished items that were expected to be completed by the neighboring projects but had to be now added to the King Substation project to complete the project scope.

PG&E was also required to reconnect the 12kV power supply to the newly rebuilt King Substation. Despite SFMTA's best coordination efforts, it took PG&E several weeks to schedule a crew to complete this connection and allow SFMTA to complete final cutover and testing,

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causing a delay to substantial completion.

The final delay to the substantial completion schedule was the final cutover work from the Mobile Substation to the rebuilt King Substation. This impact of this work was disputed, and, after negotiations, the SFMTA and the contractor agreed to a 35-day non-compensable time extension.

The contractor submitted change order requests and a time extension request seeking an additional \$2 million and 135 days of compensable time, which covered all impacts up to the substantial completion date of May 27, 2023. The SFMTA project team reviewed these change order requests and determined that a price increase of \$1,080,483, including 100 days of compensable time and 35 days of non-compensable time, would be fair and reasonable.

During the construction of the new King Substation and other necessary infrastructure, several unforeseen conditions were encountered. These unexpected site conditions required additional work to ensure the project's successful completion and reliable operation of the infrastructure. These were accounted for in 7 individual change orders from the contractor requesting an additional \$271,864 to be added to the contract. The SFMTA conducted a detailed cost analysis of these change orders and developed independent costs estimates, determining \$226,375 was justified.

Owner directed changes were required to ensure that the newly constructed substation to improve substation efficiency and reduce risky of component or system failures. These changes resulted in additional work that affected the Contractor's efficiency. There were 17 change order requests submitted by the contractor requesting an additional \$544,420. The SFMTA conducted a detailed cost analysis of these change orders and developed independent costs estimates, determining \$247,195 was justified.

Additional work was required to address in- house design errors and omissions from the contract. It includes items omitted that were necessary to complete the work to an operational level and meet the codes and regulatory guidelines outlined in the specifications. There were 13 change order requests submitted by the contractor requesting an additional \$772,964. The SFMTA conducted a detailed cost analysis of these change orders and developed independent costs estimates, determining \$356,461 was justified.

The Contractor agreed to accept the amounts that the SFMTA determined were reasonable for all three types of change orders: for differing site conditions -- \$226,375; for owner directed changes and impacts -- \$247,163; and for design errors and omissions -- \$356,461. The total amount agreed upon for direct costs for Contract Modification No. 5 was \$829,998.

The Contractor requested a compensable time extension of 135 days in the amount of \$363,386.25 for the three delays: (1) delays in accessing manholes which were under construction by another neighboring SFMTA project (21 days); (2) delays in PG&E scheduling substation energization (79 days); and (3) delays in performing cutover work (35 days). The

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SFMTA conducted a detailed schedule analysis and developed an independent cost estimate, and determined that only 100 days were compensable. After negotiations, the parties reached an agreement of 100 compensable days for the first two delays in the amount of \$250,452, and a non-compensable time extension of 35 days for the third delay.

Altogether, Contract Modification No. 5 would add a 135-day time extension, moving the required substantial completion date from January 12, 2023, to May 27 2023, and would add \$1,080,483 in additional compensation, to bring the final total contract amount to \$16,513,277.35 after a bid item adjustment of \$59,828.35.

SFMTA Board approval is required for Contract Modification No. 5 because under the Board's Delegation of Authority (Resolution No. 240604-061), for a construction contract over \$10 million, the Director of Transportation may only approve cumulative increases up to 10 percent of the original contract amount and cumulative contract extensions up to 25 percent of the original term of the contract.

Current Status

The Contractor achieved substantial completion of all work on May 27, 2023. Beneficial Occupancy began on this date and all testing, commissioning and training were completed.

TRANSIT IMPACT

Because of the use of the Mobile Substation during construction, there was no impact to transit service due to the delays or other work covered in Contract Modification No. 5.

STAKEHOLDER ENGAGEMENT

During the construction phase, the SFMTA conducted continuous communications with the community stakeholders, including district supervisors, Oracle Park, and South of Market Business Association. The outreach team used multiple media channels such as Twitter, Facebook, webpost, and emails to reach out to the impacted businesses and neighborhoods regarding any disruptions.

ALTERNATIVES CONSIDERED

The project team considered the alternative deleting various scope of the project. However, this would have added increased costs to reissue the work and would have delayed providing infrastructure to neighboring projects. Additionally, the project team considered accelerating portions of this work, but that would have required transit shutdowns and unnecessary public impact.

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FUNDING IMPACT

This Modification will be funded through the existing King Substation project budget. The contract increase was funded by reallocating funds from the Project Contingency, which is specifically set aside for contract modifications.

ENVIRONMENTAL REVIEW

The Golden State Warriors Event Center and Mixed-Use Project at Mission Bay Blocks 29-32, Muni UCSF/Mission Bay Station Variant, Final Subsequent Environmental Impact Report (Warriors Event Center Project FSEIR) evaluated the environmental impacts of the King Substation Upgrade Project. On November 3, 2015, the San Francisco Commission on Community Investment and Infrastructure (CCII), the successor agency to the former Redevelopment Agency, reviewed and considered the FSEIR for the Warriors Event Center Project and, by CCII Resolution No. 12 69-2015, certified the FSEIR in compliance with California Environmental Quality Act (CEQA). The CCII also approved the Event Center Project by the adoption of Resolutions No. 70-2015 (adopting CEQA Findings), No.71- 2015 (approving amendments to the Mission Bay South Design for Development), and No.72- 2015 (conditionally approving the Major Phase and Basic Concept/Schematic Design applications for the Project). On November 3, 2015, this Board adopted the Warriors Event Center Project's CEQA findings (Resolution No. 15-154). In Resolution No. 15-154, this Board approved various elements of the Transportation Service Plan and capital improvements for the Event Center Project, including augmenting the power supply.

The contract modification as described herein (Modification No. 5 to Contract No. 1304 for the Muni Metro System King Substation Upgrade Project) falls within the scope of the Warriors Event Center Project FSEIR.

A copy of the Event Center Project FSEIR is on file with the SFMTA Board of Directors, may be found in the records of the Planning Department at <https://sfplanning.org/> and 49 South Van Ness Avenue, Suite 1400 in San Francisco, and is incorporated herein by reference.

OTHER APPROVALS RECEIVED OR STILL REQUIRED

The Contract Compliance Office has reviewed this report.

The City Attorney's Office has reviewed the calendar item. No other approvals are required.

RECOMMENDATION

Staff recommends that the SFMTA Board of Directors authorize the Director of Transportation to execute Modification No. 5 to Contract No. 1304, Muni Metro System King Substation Upgrade, with DMZ Builders to adjust the quantity to reflect the actual quantity performed and compensate the Contractor for extended overhead and additional costs due to differing site

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conditions, substation improvements and resilience upgrades, and design errors and omissions, in the amount of \$1,140,311.35, increasing the total Contract amount to \$16,513,277.35; and to extend the contract term by 135 days, to a total of 1,810 days to Substantial Completion to close out the Contract.

SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY
BOARD OF DIRECTORS

RESOLUTION No. _____

WHEREAS, On April 17, 2018, the SFMTA Board of Directors adopted Resolution No. 180417-061, awarding Contract No. 1304, Muni Metro System King Substation Upgrade, to DMZ Builders, in the amount of \$11,398,450, and for a term of 365 days to Substantial Completion; and,

WHEREAS, The work under the Contract involved construction of a new King Substation to provide sufficient electrical power to meet increased demand from the Muni light rail vehicles serving Oracle Park, the Chase Center, and the Central Subway, and the installation of a temporary mobile substation to provide power while the new substation was constructed; and,

WHEREAS, During the construction of the new King Substation and other necessary infrastructure, several unforeseen conditions were encountered. These unexpected site conditions required additional work to ensure the project's successful completion and reliable operation of the infrastructure; and,

WHEREAS, Owner directed changes were required to mitigate the risk of potential system failures. Additions were made to improve resilience of the substation against potential hazards and to improve substation efficiency; and,

WHEREAS, Additional work was required to address design errors and omissions from the contract. It included items that were necessary to complete the work to an operational level and meet the codes and regulatory guidelines outlined in the specifications; and,

WHEREAS, On March 26, 2020, the Director of Transportation executed Contract Modification No. 1 to compensate the Contractor for specific costs incurred relating to the field work suspension and additional required work in the amount of \$942,687, for a total Contract amount not to exceed \$12,341,137, with no extension of time; and,

WHEREAS, On July 12, 2020, the Director of Transportation executed Contract Modification No. 2, to provide an allowance for COVID-19 safety costs, increasing the Contract amount by \$118,000, for a total Contract amount not to exceed \$12,459,137, with no extension of time; and,

WHEREAS, On April 20, 2021, the SFMTA Board of Directors adopted Resolution No. 210420-056 authorizing the Director of Transportation to execute Contract Modification No. 3, to compensate the Contractor for additional verified office overhead of \$363,829 resulting from suspension of contract field work due to the PG&E delay, for a total contract amount not to exceed \$12,822,966; and to extend the contract term by 360 days to a new substantial completion date of June 7, 2020; and,

WHEREAS, On December 13, 2022, the SFMTA Board of Directors adopted Resolution No. 210420-056 authorizing the Director of Transportation to execute Contract Modification No. 4, to compensate the Contractor for a global settlement of all of Contractor's claims arising before September 30, 2022, for \$2,550,000, with a time extension of 950 days to establish a new substantial completion date of January 12, 2023; and,

WHEREAS, Subsequent work on the King Substation project was delayed due to needed infrastructure from neighboring projects, PG&E energization delays, and final cutover activities: and,

WHEREAS, After analysis of the Contractor's change order and time extension requests to compensate for extended overhead and additional costs due to differing site conditions, substation improvements and resilience upgrades, design errors and omissions, and bid item quantity adjustments in the amount of \$1,140,311.35, increasing the total Contract amount to an amount not to exceed \$16,513,277.35; and to extend the contract term by 135 days, to a total of 1,810 days to substantial completion; and,

WHEREAS, The Golden State Warriors Event Center and Mixed-Use Project at Mission Bay Blocks 29-32, Muni UCSF/Mission Bay Station Variant, Final Subsequent Environmental Impacts Report (Warriors Event Center Project FSEIR) evaluated the environmental impacts of the King Substation Upgrade Project; On November 3, 2015, the San Francisco Commission on Community Investment and Infrastructure (CCII), the successor agency to the former Redevelopment Agency, reviewed and considered the FSEIR for the Warriors Event Center Project and, by CCII Resolution No. 12 69-2015, certified the FSEIR in compliance with California Environmental Quality Act (CEQA); the CCII also approved the Event Center Project by the adoption of Resolutions No. 70-2015 (adopting CEQA Findings), No.71- 2015 (approving amendments to the Mission Bay South Design for Development), and No.72- 2015 (conditionally approving the Major Phase and Basic Concept/Schematic Design applications for the Project); on November 3, 2015, this Board adopted the Warriors Event Center Project's CEQA findings (Resolution No. 15-154); and,

WHEREAS, On November 3, 2015, this Board adopted the Warriors Event Center Project's CEQA findings (Resolution No. 15-154); In Resolution No. 15-154, this Board approved various elements of the Transportation Service Plan and capital improvements for the Event Center Project, including augmenting the power supply; and,

WHEREAS, The contract modification described herein (Modification No. 5 to Contract No. 1304 for the Muni Metro System King Substation Upgrade) falls within the scope of the Warriors Event Center Project FSEIR; and,

WHEREAS, A copy of the Warriors Event Center Project FSEIR is on file with the Secretary to the SFMTA Board of Directors, and may be found in the records of the Planning Department at <https://sfplanning.org/> and 49 South Van Ness Avenue, Suite 1400 in San Francisco, and is incorporated herein by reference; and,

RESOLVED, That the San Francisco Municipal Transportation Agency Board of Directors has reviewed and considered the Event Center Project FSEIR and record as a whole, and finds that the Event Center Project is adequate for the Board's use as the decision making body for the actions taken herein relative to construction of the project, and incorporates the California Environmental Quality Act findings by this reference as though set forth in this Resolution; and be it further

RESOLVED, That the San Francisco Municipal Transportation Agency Board of Directors authorizes the Director of Transportation to execute Modification No. 5 to Contract No. 1304, Muni Metro System King Substation Upgrade, with DMZ Builders to adjust the quantity to reflect the actual quantity performed and compensate the Contractor for extended overhead and additional costs due to differing site conditions, substation improvements and resilience upgrades, and design errors and omissions, in the amount of \$1,140,311, increasing the total Contract amount to \$16,513,277; and to extend the contract term by 135 days, to a total of 1,810 days to Substantial Completion to close out the Contract.

I certify that the foregoing resolution was adopted by the San Francisco Municipal Transportation Agency Board of Directors at its meeting of September 17, 2024.

Secretary to the Board of Directors
San Francisco Municipal Transportation Agency

CONTRACT MODIFICATION NO. 5 (FINAL)

San Francisco Municipal Transportation Agency
Contract No. 1304
Muni Metro King Substation Upgrade

Contractor: DMZ Builders
4070 Nelson Ave, Suite A,
Concord, CA 94520

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The Contract is modified as follows:

1. Scope of Change

Amount

CM-5A Additional Work Due to Differing Site Conditions:

\$226,375

During the construction of the new King Substation and other necessary infrastructure, several unforeseen conditions were encountered. These unexpected site conditions required additional work to ensure the project's successful completion and reliable operation of the infrastructure. This contract pay item covers the following Change Order Requests (CORs):

COR	Description	Amount
25	Demolish Additional Concrete Under Substation	\$6,627
33	Conduit at Pole 306	\$56,581
34	Building Exterior Wall Sealant Application	\$41,930
43	Discrepancy with Existing Conditions of Overhead Catenary System (OCS)	\$7,617
44	Exterior Door Modifications	\$37,769
47	Building Slab Modifications	\$8,109
56	4 th Street Existing Conduit Issues	\$67,742

CM-5B Substation Improvements and Resilience Upgrades:**\$247,195**

Owner directed changes were required to ensure that the newly constructed substation mitigated risks of potential system failures. Additions were made to improve resilience of the substation against potential hazards and to improve substation efficiency. This item also compensates the contractor for SFMTA caused work cancellations and covers the following CORs:

COR	Description	Amount
23	Modified Schedule for Sectionalizing Switch Relocation	--
24	Cancellation of Work Due to Breaker Access	\$18,050
26	Cancellation of Work Due to Staff Shortage	\$3,296
28	Troubleshoot MO-2 Issue at Mobile Substation	\$3,450
30	K7 / K8 Stray Voltage	\$22,043
31	Cadweld Ground Cable at Mobile Substation	\$3,920
40	Annunciator Upgrade Key Code	\$1,646
41	CMU Wall Water Intrusion Issue	\$12,844
42	Stud Welded Wire Supports	\$5,216
45	Fire Alarm Modifications	\$25,508
46	K01 & K02 Modifications	\$21,087
48	Additional Conduit for Cable Tray Wires	\$15,520
52	Troubleshoot MO-3 & MO-5	\$17,770
53	Additional Grounding	\$3,636
55	Surge Arrestor Modifications	\$72,502
57	Grounding Clamp Assembly	\$2,956
58	Sewer Rehab	\$17,751

CM-5C Design Errors and Omissions:**\$356,461**

Additional work was required to address design errors and omission from the contract. It includes items omitted that were necessary to complete the work to an operational level and meet the codes and regulatory guidelines outlined in the specifications. This contract pay item covers the following CORs:

COR	Description	Amount
11	Mobile Substation Feeder Cutover in MH1876	--
14	Demolish Existing Grade Beams	\$18,356
18	Bond 4/0 Cable from SS-13/14 to Rail	\$45,537
36	Remove Structural Bea to Install Transformer	\$38,246
37	Bathroom Framing Issue	\$5,219
38	Bollard Removal and Disposal	\$10,921
39	Permanent Substation Cutover	--
49	Additional Circuit from DP01	\$2,574
50	Roll Up Door Monitoring	\$8,616
51	Fire Alarm Panel Telephone Connection	\$11,272
54	Room High Temp Sensor	\$10,440
59	Mobile Substation Relocation	\$97,372
60	Exterior Civil Work	\$107,908

CM-5D Time Extension: **\$250,452**

Extend the Contract term by 135 calendar days (100 days are compensable and 35 days are non-compensable) for a new substantial completion date of May 27, 2023, related to the following delays:

- Central Subway Access Restrictions: Restricted access to the site due to concurrent priority punch list work for the Central Subway Project: increase the contract duration to Substantial Completion by 21 compensable days.
- PG&E Energization Delay: Cutover and final testing work could not be completed due to PG&E delays in scheduling 12 kV energization of the King Substation: increase the contract duration to Substantial Completion by 79 compensable days .
- Cutover to Permanent King Substation: The final cutover of the traction power cables from the Mobile Substation to the King Substation: increase the contract duration to Substantial Completion by 35 non-compensable days .

CM-5E Bid Item Final Quantity Adjustment: **\$59,828.35**

The estimated contract bid items quantities are adjusted to match with the actual quantities and amounts of work provided and installed by the Contractor, as listed on the attached Final Quantity Summary, increasing the Contract Amount by \$59,828.35.

2. Add the following new Contract Pay Items:

Item	Description	Qty	Unit	Unit Price	Amount
CM-5A	Additional Work Due to Differing Site Conditions	-	LS	-	\$226,375
CM-5B	Owner Initiated Changes and Additions	-	LS	-	\$247,195
CM-5C	Design Errors and Omissions	-	LS	-	\$356,461
CM-5D	Time Extension	-	LS	-	\$250,452
CM-5E	Bid Item Final Quantity Adjustment	-	LS	-	\$59,828.35

Total Amount of this Contract Modification: Increase \$1,140,311.35

Previous Total of Contract: \$15,372,966.00

New Revised Total of Contract: \$16,513,277.35

Total Contract Time Added by this Contract Modification:	135 Days
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Previous Contract Substantial Completion Date: 01/12/2023

Current Contract Substantial Completion Date: 05/27/2023

3. This Contract Modification is made in accordance with Article 6 and 7 of the General Provisions of the Contract.
4. Except as specifically stated herein, all other terms and conditions of the Contract remain unchanged.
5. The compensation (time and cost) set forth in this Modification comprises the total of all compensation due to Contractor, all Subcontractors, and all Suppliers, as a result of the events giving rise to the Modification and for the Additional Work described in this Modification, including any time impact on unchanged Work, including delays and inefficiencies. The execution of this Modification constitutes an accord and satisfaction of any claim for additional compensation or time for the Additional Work effected by this Modification, and Contractor on behalf of itself, and all Subcontractors and Suppliers, specifically waives and releases any and all claims rights or interest, including but not limited to legal and equitable claims for direct, indirect, and overhead costs, delay, impact, disruption, loss of efficiency or other special, extraordinary or consequential costs arising from or related to the Work described in the Modification, without exception or reservation of any kind.

Attachments:

1. Summary of Final Quantity Adjustments

In Witness Whereof, this Modification has been executed in San Francisco, California, as of this

date: _____.

DMZ Builders Inc.

**CITY AND COUNTY OF SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY**

By: _____

Clayton M. Cochran
Project Executive

By: _____

Jeffrey P. Tumlin
Director of Transportation

Authorized By:

San Francisco Municipal
Transportation Agency

Board of Directors

Resolution No. _____

Adopted:

Attest:

SFMTA Board of Directors

APPROVED AS TO FORM:

David Chiu, City Attorney

By: _____

David F. Innis
Deputy City Attorney

Final Quantity Adjustment



ITEM NO.	DESCRIPTION	UNIT	UNIT PRICE	CONTRACT		PREVIOUS PERIOD		THIS PERIOD		FINAL AMOUNT		Adjustment
				QUANTITY	AMOUNT	QUANTITY	AMOUNT	QUANTITY	AMOUNT	QUANTITY	AMOUNT	
G-01	MOBILIZATION AND DEMOBILIZATION	LS	\$200,000.00	1	\$200,000.00	95.00%	\$190,000.00	5.00%	\$10,000.00	100.00%	\$200,000.00	\$0.00
G-02	ALLOWANCE FOR DIFFERING SITE CONDITIONS	AL	\$300,000.00	1	\$300,000.00	99.92%	\$299,760.00	0.00%	\$0.00	99.92%	\$299,760.00	(\$240.00)
G-03	ALLOWANCE FOR UNFORESEEN WORK RELATED TO STRUCTURAL WORK	AL	\$25,000.00	1	\$25,000.00	102.51%	\$25,628.00	0.00%	\$0.00	102.51%	\$25,628.00	\$628.00
G-04	ALLOWANCE FOR UNFORESEEN WORK RELATED TO ELECTRICAL WORK	AL	\$400,000.00	1	\$400,000.00	99.91%	\$399,641.88	0.00%	\$0.00	99.91%	\$399,641.88	(\$358.12)
G-05	ALLOWANCE FOR WORK RELATED TO MECHANICAL WORK	AL	\$50,000.00	1	\$50,000.00	90.56%	\$45,279.14	0.00%	\$0.00	90.56%	\$45,279.14	(\$4,720.86)
G-06	ALLOWANCE FOR UNFORESEEN WORK RELATED TO BUILDING SEWER WORK	AL	\$10,000.00	1	\$10,000.00	43.22%	\$4,321.52	0.00%	\$0.00	43.22%	\$4,321.52	(\$5,678.48)
G-07	ALLOWANCE FOR UNFORESEEN WORK RELATED TO CIVIL WORK	AL	\$15,000.00	1	\$15,000.00	94.10%	\$14,114.92	0.00%	\$0.00	94.10%	\$14,114.92	(\$885.08)
G-08	ALLOWANCE FOR ENVIRONMENTAL WORK	AL	\$70,000.00	1	\$70,000.00	106.65%	\$74,651.65	0.00%	\$0.00	106.65%	\$74,651.65	\$4,651.65
G-09	ALLOWANCE FOR UNFORESEEN WORK RELATED TO OVERHEAD WORK	AL	\$12,000.00	1	\$12,000.00	0.00%	\$0.00	0.00%	\$0.00	0.00%	\$0.00	\$12,000.00
G-10	ALLOWANCE FOR UNFORESEEN WORK RELATED TO TRAFFIC REGULATIONS	AL	\$50,000.00	1	\$50,000.00	6.32%	\$3,162.34	0.00%	\$0.00	6.32%	\$3,162.34	(\$46,837.66)
G-11	ALLOWANCE FOR REIMBURSABLE EXPENSES	AL	\$75,000.00	1	\$75,000.00	147.09%	\$110,316.73	0.00%	\$0.00	147.09%	\$110,316.73	\$35,316.73
G-12	ALLOWANCE FOR PARTNERING	AL	\$10,000.00	1	\$10,000.00	82.39%	\$8,239.49	0.00%	\$0.00	82.39%	\$8,239.49	(\$1,760.51)
G-13	OPERATIONS & MAINTENANCE MANUALS	LS	\$25,000.00	1	\$25,000.00	0.00%	\$0.00	100.00%	\$25,000.00	100.00%	\$25,000.00	\$0.00
G-14	CONTRACT RECORD DOCUMENTS	LS	\$10,000.00	1	\$10,000.00	0.00%	\$0.00	100.00%	\$10,000.00	100.00%	\$10,000.00	\$0.00
G-15	SITE SECURITY	LS	\$150,000.00	1	\$150,000.00	100.00%	\$150,000.00	0.00%	\$0.00	100.00%	\$150,000.00	\$0.00
G-16	ALLOWANCE FOR AS-NEEDED TRANSIT SUPPORT PROVIDED BY CONTRACTOR	AL	\$31,000.00	1	\$31,000.00	0.00%	\$0.00	0.00%	\$0.00	0.00%	\$0.00	(\$31,000.00)
G-17	ALLOWANCE FOR SPECIAL INSPECTIONS & TESTING AGENCIES	AL	\$30,000.00	1	\$30,000.00	91.08%	\$27,323.53	0.00%	\$0.00	91.08%	\$27,323.53	(\$2,676.47)
A-01	EXISTING TOILET ROOM DEMOLITION	LS	\$3,500.00	1	\$3,500.00	100.00%	\$3,500.00	0.00%	\$0.00	100.00%	\$3,500.00	\$0.00
A-02	NEW TOILET ROOM CONSTRUCTION	LS	\$25,000.00	1	\$25,000.00	100.00%	\$25,000.00	0.00%	\$0.00	100.00%	\$25,000.00	\$0.00
A-03	RE-ROOFING	LS	\$125,000.00	1	\$125,000.00	100.00%	\$125,000.00	0.00%	\$0.00	100.00%	\$125,000.00	\$0.00
A-04	EXTERIOR SWINGING AND ROLL-UP DOOR WORK	LS	\$25,000.00	1	\$25,000.00	100.00%	\$25,000.00	0.00%	\$0.00	100.00%	\$25,000.00	\$0.00
A-05	SIGNAGE	LS	\$2,000.00	1	\$2,000.00	100.00%	\$2,000.00	0.00%	\$0.00	100.00%	\$2,000.00	\$0.00
R-1	ASPHALT CONCRETE (TYPE A 1/2 INCH MAXIMUM WITH MEDIUM GRADING)	TON	\$220.00	45	\$9,900.00	10.00%	\$2,200.00	35.00%	\$7,700.00	45.00%	\$9,900.00	\$0.00
R-2	6-INCH THICK CONCRETE SIDEWALK	SF	\$45.00	60	\$2,700.00	0.00%	\$0.00	60.00%	\$2,700.00	60.00%	\$2,700.00	\$0.00
R-3	AGGREGATE BASE CLASS II	CY	\$350.00	35	\$12,250.00	6.00%	\$2,100.00	29.00%	\$10,150.00	35.00%	\$12,250.00	\$0.00
S-1	STRUCTURAL FOUNDATION CONCRETE	CY	\$3,000.00	47	\$141,000.00	50.00%	\$150,000.00	0.00%	\$0.00	50.00%	\$150,000.00	\$9,000.00
S-2	STRUCTURAL STEEL FRAMING	LB	\$30.00	500	\$15,000.00	1788.00%	\$53,640.00	0.00%	\$0.00	1788.00%	\$53,640.00	\$38,640.00
SW-01	4-INCH DIAMETER CIP BUILDING SWER ON SAND BEDDING	LF	\$750.00	12	\$9,000.00	17.00%	\$12,750.00	0.00%	\$0.00	17.00%	\$12,750.00	\$3,750.00
SW-02	BUILDING SEWER CLEAN OUT ASSEMBLY	LS	\$5,000.00	1	\$5,000.00	100.00%	\$5,000.00	0.00%	\$0.00	100.00%	\$5,000.00	\$0.00
SW-03	PRE-CONSTRUCTION TELEVISION INSPECTION OF EXISTING BUILDING SWER TO REMAIN ACTIVE	LS	\$2,500.00	1	\$2,500.00	100.00%	\$2,500.00	0.00%	\$0.00	100.00%	\$2,500.00	\$0.00
SW-04	POST-CONSTRUCTION TELEVISION INSPECTION OF NEWLY CONSTRUCTED BUILDING SEWERS	LS	\$2,500.00	1	\$2,500.00	100.00%	\$2,500.00	0.00%	\$0.00	100.00%	\$2,500.00	\$0.00
SW-05	ALLOWANCE FOR REHABILITATION OF ECISTING, 4-INCH DIAMETER BUILDING SEWER, SIDE SWER, AND CONSTRUCTION OF AIR VENT ASSEMBLY	AL	\$45,000.00	1	\$45,000.00	0.00%	\$0.00	0.00%	\$0.00	0.00%	\$0.00	(\$45,000.00)
ME-1	PLUMBING SYSTEMS	LS	\$50,000.00	1	\$50,000.00	100.00%	\$50,000.00	0.00%	\$0.00	100.00%	\$50,000.00	\$0.00
ME-2	FM-200 FIRE SUPPRESSION SYSTEM	LS	\$150,000.00	1	\$150,000.00	100.00%	\$150,000.00	0.00%	\$0.00	100.00%	\$150,000.00	\$0.00
ME-3	VENTILATION SYSTEM	LS	\$300,000.00	1	\$300,000.00	100.00%	\$300,000.00	0.00%	\$0.00	100.00%	\$300,000.00	\$0.00
ME-4	DEMOLISH EXISTING MECHANICAL SYSTEMS	LS	\$25,000.00	1	\$25,000.00	100.00%	\$25,000.00	0.00%	\$0.00	100.00%	\$25,000.00	\$0.00
EL-01	KING SUBSTATION DEMOLITION & SITE PREPARATION	LS	\$800,000.00	1	\$800,000.00	100.00%	\$800,000.00	0.00%	\$0.00	100.00%	\$800,000.00	\$0.00
EL-02	12 KV METERING COMPARTMENT & 12 KV SWITCHGEAR	LS	\$175,000.00	1	\$175,000.00	100.00%	\$175,000.00	0.00%	\$0.00	100.00%	\$175,000.00	\$0.00
EL-03	TRANSFORMER-RECTIFIER ASSEMBLY	LS	\$750,000.00	1	\$750,000.00	100.00%	\$750,000.00	0.00%	\$0.00	100.00%	\$750,000.00	\$0.00
EL-04	615V DC SWITCHGEAR	LS	\$1,800,000.00	1	\$1,800,000.00	100.00%	\$1,800,000.00	0.00%	\$0.00	100.00%	\$1,800,000.00	\$0.00
EL-05	SCADA RTU SV1	LS	\$300,000.00	1	\$300,000.00	100.00%	\$300,000.00	0.00%	\$0.00	100.00%	\$300,000.00	\$0.00
EL-06	ANNUNCIATOR K01	LS	\$35,000.00	1	\$35,000.00	100.00%	\$35,000.00	0.00%	\$0.00	100.00%	\$35,000.00	\$0.00
EL-07	AUXILIARY BOARD K02	LS	\$25,000.00	1	\$25,000.00	100.00%	\$25,000.00	0.00%	\$0.00	100.00%	\$25,000.00	\$0.00
EL-08	125V DC BATTERY SYSTEM	LS	\$75,000.00	1	\$75,000.00	100.00%	\$75,000.00	0.00%	\$0.00	100.00%	\$75,000.00	\$0.00
EL-09	FIRE ALARM PANEL	LS	\$75,000.00	1	\$75,000.00	100.00%	\$75,000.00	0.00%	\$0.00	100.00%	\$75,000.00	\$0.00
EL-10	SECURITY PANEL	LS	\$20,000.00	1	\$20,000.00	100.00%	\$20,000.00	0.00%	\$0.00	100.00%	\$20,000.00	\$0.00
EL-11	CONDUITS AND WIRING	LS	\$200,000.00	1	\$200,000.00	100.00%	\$200,000.00	0.00%	\$0.00	100.00%	\$200,000.00	\$0.00
EL-12	TEMPORARY MOBILE SUBSATION CONNECTIONS	LS	\$700,000.00	1	\$700,000.00	100.00%	\$700,000.00	0.00%	\$0.00	100.00%	\$700,000.00	\$0.00

EL-13A	RETAG EXISTING FEEDER CIRCUITS	EA	\$100.00	2016	\$201,600.00	1998.00	\$199,800.00	0.00%	\$0.00	1998.00	\$199,800.00	(\$1,800.00)
EL-13B	EXTENSION OF FEEDER CIRCUITS	LF	\$30.00	18100	\$543,000.00	1.00	\$543,000.00	0.00%	\$0.00	1.00	\$543,000.00	\$0.00
EL-13C	SECTIONALIZING SWITCHES RELOCATION	LS	\$75,000.00	1	\$75,000.00	100.00%	\$75,000.00	0.00%	\$0.00	100.00%	\$75,000.00	\$0.00
EL-14	TRACTION POWER CABLES FOR K-7 & K-8	LF	\$30.00	40000	\$1,200,000.00	47490.00	\$1,424,700.00	0.00%	\$0.00	47490.00	\$1,424,700.00	\$224,700.00
EL-15	LIGHTING SYSTEM	LS	\$50,000.00	1	\$50,000.00	100.00%	\$50,000.00	0.00%	\$0.00	100.00%	\$50,000.00	\$0.00
EL-16	KING SUBSTATION 120/240 VAC SERVICE	LS	\$100,000.00	1	\$100,000.00	100.00%	\$100,000.00	0.00%	\$0.00	100.00%	\$100,000.00	\$0.00
EL-17	SERVICE ENGINEER	EA	\$50,000.00	1	\$50,000.00	1.00	\$50,000.00	0.00%	\$0.00	1.00	\$50,000.00	\$0.00
EL-18	GROUNDING, NEGATIVE GROUND DISCONNECT SWITCH, AND GROUND TEST STATIONS	LS	\$50,000.00	1	\$50,000.00	100.00%	\$50,000.00	0.00%	\$0.00	100.00%	\$50,000.00	\$0.00
EL-19	AUXILIARY DEVICES	LS	\$15,000.00	1	\$15,000.00	100.00%	\$15,000.00	0.00%	\$0.00	100.00%	\$15,000.00	\$0.00
EL-20	TESTING	EA	\$100,000.00	1	\$100,000.00	1.00	\$100,000.00	0.00%	\$0.00	1.00	\$100,000.00	\$0.00
EL-21	PG&E 12 KV SERVICE	LS	\$800,000.00	1	\$800,000.00	100.00%	\$800,000.00	0.00%	\$0.00	100.00%	\$800,000.00	\$0.00
EL-22	RISER CABLE & CONDUIT ALONG 4TH STREET	LS	\$50,000.00	1	\$50,000.00	100.00%	\$50,000.00	0.00%	\$0.00	100.00%	\$50,000.00	\$0.00
EL-23	ELECTRICAL SPARE PARTS	LS	\$150,000.00	1	\$150,000.00	100.00%	\$150,000.00	0.00%	\$0.00	100.00%	\$150,000.00	\$0.00
OV-01	PROVIDE FEED SPAN	EA	\$12,500.00	7	\$87,500.00	8.00	\$100,000.00	0.00%	\$0.00	8.00	\$100,000.00	\$12,500.00
OV-02	PROVIDE TANGENT SPAN	EA	\$17,000.00	3	\$51,000.00	4.00	\$68,000.00	0.00%	\$0.00	4.00	\$68,000.00	\$17,000.00
OV-03	PROVIDE AUXILIARY EQUALIZER SPAN	EA	\$37,000.00	1	\$37,000.00	1.00	\$37,000.00	0.00%	\$0.00	1.00	\$37,000.00	\$0.00
OV-04	PROVIDE JUMPER ASSEMBLY	EA	\$20,000.00	2	\$40,000.00	2.00	\$40,000.00	0.00%	\$0.00	2.00	\$40,000.00	\$0.00
TR-01	TRAFFIC CONTROL	LS	\$400,000.00	1	\$400,000.00	100.00%	\$400,000.00	0.00%	\$0.00	100.00%	\$400,000.00	\$0.00
TR-02	REMOVAL OF EXISTING AND INSTALLATION OF TEMPORARY STRIPING, MESSAGES, AND PAVEMENT MARKERS FOR ALL PHASES OF CONSTRUCTION	LF	\$10.00	1000	\$10,000.00	60.00	\$600.00	0.00%	\$0.00	60.00	\$600.00	(\$9,400.00)
TR-03	CHANGEABLE MESSAGE SIGNS	EA	\$10,000.00	2	\$20,000.00	0.00	\$0.00	0.00%	\$0.00	0.00	\$0.00	(\$20,000.00)
TOTAL BASE CONTRACT:					11,398,450.00	100.86%	11,496,729.20	0.58%	\$65,550.00	101.44%	\$11,562,279.20	\$163,829.20
CM CONTRACT MODIFICATIONS												
CM-1A.1	DOUBLE HANDLING TO MATERIALS TO/FROM STORAGE LOCATION	LS	\$90,800.00	1	\$90,800.00	100.00%	\$90,800.00	0.00%	\$0.00	100.00%	\$90,800.00	\$0.00
CM-1A.2	ADDITIONAL DEMOBILIZATION/REMOBILIZATION COST DUE TO PG&E DELAY	LS	\$92,412.00	1	\$92,412.00	100.00%	\$92,412.00	0.00%	\$0.00	100.00%	\$92,412.00	\$0.00
CM-1A.3	ADDITIONAL STORAGE COST FROM 1/1/19 THRU 10/31/19	LS	\$96,094.00	1	\$96,094.00	100.00%	\$96,094.00	0.00%	\$0.00	100.00%	\$96,094.00	\$0.00
CM-1A.3B	ADDITIONAL STORAGE COST (AFTER 10/31/19 THRU 2/28/20): 120 DAYS @361.51 PER DAY	LS	\$43,381.00	1	\$43,381.00	100.00%	\$43,381.00	0.00%	\$0.00	100.00%	\$43,381.00	\$0.00
CM-1B	ADDITIONAL WORK REQUIRED TO MAINTAIN SCADA FUNCTIONALITY	LS	\$620,000.00	1	\$620,000.00	100.00%	\$620,000.00	0.00%	\$0.00	100.00%	\$620,000.00	\$0.00
CM-2	ALLOWANCE TO IMPLEMENT ADDITIONAL SAFE WORK PRACTICES DUE TO COVID-19 EMERGENCY	LS	\$118,000.00	1	\$118,000.00	11.86%	\$13,999.15	0.00%	\$0.00	11.86%	\$13,999.15	(\$104,000.85)
CM-3	TEMPORARY SUSPENSION OF CONTRACT FIELD WORK	LS	\$363,829.00	1	\$363,829.00	100.00%	\$363,829.00	0.00%	\$0.00	100.00%	\$363,829.00	\$0.00
CM-4	GLOBAL CLAIMS SETTLEMENT: SETTLE ALL CLAIMS ARISING BEFORE SEPTEMBER 30, 2022	LS	\$2,550,000.00	1	\$2,550,000.00	100.00%	\$2,550,000.00	0.00%	\$0.00	100.00%	\$2,550,000.00	\$0.00
CM-5A	ADDITIONAL WORK DUE TO DIFFERING SITE CONDITIONS	LS	\$226,375.00	1	\$226,375.00	0.00%	\$0.00	100.00%	\$226,375.00	100.00%	\$226,375.00	\$0.00
CM-5B	SUBSTATION IMPROVEMENTS AND RESILIENCE UPGRADES	LS	\$247,195.00	1	\$247,195.00	0.00%	\$0.00	100.00%	\$247,195.00	100.00%	\$247,195.00	\$0.00
CM-5C	DESIGN ERRORS AND OMISSIONS	LS	\$356,461.00	1	\$356,461.00	0.00%	\$0.00	100.00%	\$356,461.00	100.00%	\$356,461.00	\$0.00
CM-5D	TIME EXTENSION	LS	\$250,452.00	1	\$250,452.00	0.00%	\$0.00	100.00%	\$250,452.00	100.00%	\$250,452.00	\$0.00
CM-5E	BID ITEM FINAL QUANTITY ADJUSTMENT	LS	\$0.00	1	\$59,828.35	0.00%	\$0.00	0.00%	\$0.00	0.00%	\$0.00	(\$59,828.35)
TOTAL CONTRACT MODIFICATIONS:					\$5,114,827.35	75.67%	\$3,870,515.15	21.12%	\$1,080,483.00	96.80%	\$4,950,998.15	(\$163,829.20)
TOTAL:					\$16,513,277.35	93.06%	\$15,367,244.35	6.94%	\$1,146,033.00	100.00%	\$16,513,277.35	\$0.00

Clayton M. Cochran

Safa Mannal for Jonathan Young

Concurred By: _____
 CLAYTON M. COCHRAN, PROJECT EXECUTIVE,
 August 23, 2024 DMZ BUILDERS

Approved By: _____
 JONATHAN YOUNG, RESIDENT ENGINEER
 SFMTA CONSTRUCTION MANAGEMENT
 August 22, 2024

ENCLOSURE 3

King Substation Upgrade

San Francisco Municipal Transportation Agency, Contract No. 1304,

Project Budget and Financial Plan

Cost	Amount
Detail Design Phase Staff Support (SFMTA and Other City Services)	\$1,257,996
Construction Phase Construction Contract, Contingency, and Staff Support	\$30,876,926
Total Cost	\$32,134,922

Funding Sources	Amount
Development Impact Fees	\$394,201
General Fund (Operating)	\$945,000
General Fund Subsidy (Population Based Baseline)	\$5,103,462
SFMTA Revenue Bond	\$6,555,000
Bridge Tolls (AB664)	\$4,400,000
Transportation and Road Improvement General Obligation	\$14,737,259
Grand Total	\$32,134,922