CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION
WASTEWATER ENTERPRISE

DENNIS J. HERRERA
GENERAL MANAGER

STEPHEN D. ROBINSON
ASSISTANT GENERAL MANAGER
INFRASTRUCTURE

SAMPLE PUC CONTRACT

CONTRACT NO. WW-XYZ
JANUARY 2025

SPECIFICATIONS

COPY NO._____

PROJECT Number/ID: TBD

Each bid is to be enclosed in an envelope bearing the superscription:

"Bid for Sample PUC Contract,
Contract No. WW-XYZ"

ADVERTISEMENT FOR BIDS
CITY & COUNTY OF SAN FRANCISCO
SAN FRANCISCO PUBLIC UTILITIES COMMISSION
INFRASTRUCTURE DIVISION

Sample PUC Contract
Contract No. WW-XYZ

Bidders must turn in sealed bids via a ShareFile link prior to 2:00 P.M. on 3/6/2025. The ShareFile link will be distributed to all plan holders the day before Bids are due. Bids will be opened and read in public via a Zoom meeting. Please access the meeting at this website: https://sfwater.zoom.us. The Meeting ID is 878 1194 5391 and the meeting Passcode is 662353. To join, enter Meeting ID and click Join. When prompted, enter the meeting Passcode. To participate by phone, dial +1.213.338.8477 and enter the Meeting ID followed by # key. When prompted, enter the meeting Passcode and # key. The contract specifications, drawings, and available project information are available at https://webapps.sfpuc.org/bids/. An electronic version of the bidding forms is available by request. To request these materials, email qbd@sfwater.org with this Contract No. WW-XYZ, the firm name, full address, email address, phone number, copy of contractor's license or business card, and a copy of a government-issued identification. Visit https://webapps.sfpuc.org/bids/ for updates.

This Project is subject to compliance monitoring and enforcement of prevailing wage requirements by the California Department of Industrial Relations ("DIR") and the San Francisco Office of Labor Standards Enforcement. No contractor or subcontractor may be listed in a bid for a public works project and no contractor or subcontractor may be awarded a contract for public work on a public works project unless registered with the DIR per California Labor Code Section 1725.5 [with limited exceptions from this requirement for bid purposes only under California Labor Code Section 1771.1(a)].

The San Francisco Public Utilities Commission authorized the Water System Improvement Program Project Labor Agreement ("WSIP PLA") to be extended to the Sewer System Improvement Program ("SSIP") and the Auxiliary Water Supply System ("AWSS") Pumping Station 2 project. The agreement to extend the WSIP PLA to all SSIP projects and the AWSS project is known as the Extension Agreement. This Project is covered by the WSIP PLA and Extension Agreement (collectively referred to as "PLA"). A copy of the PLA documents are included as Section 00 73 18.10 in the contract documents. Bidders are advised that the PLA is incorporated into and made a part of any contract awarded for this Project, subject to exceptions in the Extension Agreement.

The objective of the project is to construct green infrastructure on SFUSD property. The work is to be performed in San Francisco, California. The Engineer's estimate is $*2,000,000*. The contract will be awarded to the responsible Bidder submitting the lowest responsive bid.

Bid discounts may be applied as per San Francisco Administrative Code Chapter 14B and Section 2.01 of CMD Attachment 1. The Local Business Enterprise (LBE) subcontracting requirement is 20.00%. The LBE subcontracting requirement can only be met with CMD certified San Francisco Micro and Small-LBEs. SFPUC-LBEs cannot be counted towards meeting the LBE subcontracting requirement(s). Prime and Joint Venture level LBE participation cannot be counted towards meeting any of the LBE subcontracting requirement(s). LBE subcontractors must be certified with CMD in the scope of work they are being listed to perform. All Bidders shall submit documented Good Faith efforts with their Bids as directed on CMD Form 2B, except those who exceed the above-stated subcontracting requirement(s) by at least 35%. Refer to CMD Attachment 1. Failure to comply with Chapter 14B requirements may result in a Bid being deemed non-responsive and ineligible for Contract award. Please contact CMD Contract Compliance Officer at 415-123-4567 or TBD@sfgov.org for further information. Subcontracting opportunities may include, but not limited, to the following major types of work: ***[Manual Insert – to be provided by the PM]***. Please refer to Section 01 60 00 in the Specifications regarding the purchase of equipment to achieve the LBE subcontracting participation requirement. ***Delete previous sentence as applicable.***

In addition, the SFPUC seeks to promote diversity within its contracting opportunities. **Thus, the SFPUC strongly encourages bids from Bidders that optimize the use of S.F. Small and Micro-LBE certified subcontracting**

firms. The SFPUC also seeks to further optimize the use of contractor teams that reflect the diversity of the City and County of San Francisco. **As such, the City recommends that Bidders consider the composition of their teams in terms of gender, age, ethnicity, and race, and to utilize teams that include a diverse mix of staff at all organizational levels.**

Interested Bidders are encouraged to attend by remote means a teleconference pre-bid and contractor networking conference to be held on January 20, 2025 at *[Time]*. To participate by remote means, please access the meeting at this website: https://sfwater.zoom.us**. The Meeting ID is *[Manual Insert – to be inserted by the PM after generated by CAB]* and meeting Passcode is *[Manual Insert – to be inserted by the PM]*. To join, enter Meeting ID and click Join. When prompted, enter the meeting Passcode. To participate by phone, dial +1.213.338.8477 and enter the Meeting ID followed by # key. When prompted, enter the meeting Passcode and # key. Attendance of remote attendees will be completed at the end of the pre-bid meeting.** A site inspection will be held at ***[Location]***, at ***[Time]*** on 1/20/2025.

SFPUC encourages Bidders to complete the Safety Prequalification Web Form at https://sfpuc.org/construction-contracts/contract-opportunities-payments/prequalify-construction **at least 3-weeks prior to the date of Bid opening** in accordance with Section 00 21 13 – Instructions to Bidders. Bidders are required to pass the Safety Prequalification prior to SFPUC considering their bid submission complete. SFPUC will notify Bidders that have passed the Safety Prequalification prior to or on the date of Bid opening. Refer to Section 00 21 13 – Instructions to Bidders, "Bidder Qualifications" and the website listed above for additional information.

A **Class "A"** California Contractors License is required to bid. Furthermore, each listed subcontractor must possess appropriate active licenses for the work each subcontractor will be performing.

In accordance with San Francisco Administrative Code Chapter 6, the City and County of San Francisco will not accept any offer/bid or award any contract in excess of $1,000,000 until such time as (a) the General Manager of the San Francisco Public Utilities Commission recommends the contract for award and (b) the San Francisco Public Utilities Commission then adopts a resolution awarding the contract. Pursuant to Charter Section 3.105, all contract awards are subject to certification by the Controller as to the availability of funds. For this project, as set forth in detail in the contract, the SFPUC will issue purchase orders incrementally as needed to fund project work over the duration of the project, which serves the functions of Controller certification and encumbrance of project funds available for payments.

Bidders are hereby advised that the Contractor to whom the Contract is awarded must be certified by the Contract Monitoring Division as being in compliance with the Equal Benefits Provisions of Chapter 12B of the City's Administrative Code within two weeks after notification of award by the SFPUC General Manager.

This Project is subject to the requirements of the San Francisco Local Hiring Policy for Construction ("Policy") as set forth in Section 6.22(g) and Chapter 82 of the Administrative Code. Bidders are hereby advised that the requirements of the Policy will be incorporated as a material term of any contract awarded for the Project. Refer to Contract Section 00 73 30 for more information.

If a Bidder objects on any ground to any bid specification or legal requirement imposed by this Advertisement for Bids, the Bidder shall, no later than the 10th working day prior to the date of Bid opening, provide written notice to the Manager, Contract Administration Bureau, setting forth with specificity the grounds for the objection.

END OF SECTION

KEY CONTACTS AND DETAILS

1.01 SUMMARY

A. This Section identifies the designated individuals to be contacted for assistance with any questions.

B. Questions pertaining to all aspects of bidding shall be referred to the SFPUC Contract Administration Bureau Contact identified in Article 1.02 using *Questions on Bid Documents* Section No. 00 21 14.

C. Questions pertaining to compliance with the requirements of the San Francisco Contract Monitoring Division shall be referred to the Contract Compliance Officer identified in Article 1.03.

1.02 SFPUC - CONTRACT ADMINISTRATION BUREAU CONTACT

Derek Wong
c/o SFPUC Contract Administration Bureau
525 Golden Gate Avenue, 8th Floor
San Francisco, CA 94102
Email: CAB@sfwater.org
Direct: 415-551-4549

A. Prospective Bidders shall familiarize themselves with the intended use of *Questions on Bid Documents (*Section 00 21 14) as specified in Article 1.05 of *Instructions to Bidders (*Section 00 21 13), prior to contacting the SFPUC Contract Administration Bureau Contact.

1.03 SAN FRANCISCO CONTRACT MONITORING DIVISION (CMD) – CONTRACT COMPLIANCE OFFICER

CMD Contract Compliance Officer
Contract Monitoring Division
1155 Market St. Fl4
San Francisco, CA 94103
Direct: 415-123-4567
TBD@sfgov.org

1.04 OFFICE OF ECONOMIC AND WORKFORCE DEVELOPMENT (OEWD) – WORK FORCE CONTRACT COMPLIANCE OFFICER

Ken Nim
Office of Economic and Workforce Development
1 South Van Ness Ave., 5th Floor
San Francisco, CA 94103
http://www.workforcedevelopmentsf.org/
Direct: (415) 701-4848

1.05 PROJECT LABOR AGREEMENT – SFPUC'S WORKFORCE AND ECONOMIC PROGRAM SERVICES – PLA ADMINISTRATOR
Todd Kyger
Workforce and Economic Program Services
525 Golden Gate Avenue, 9th Floor
San Francisco, CA 94102
Direct: (415) 308-0839
https://sfpuc.org/PLA

1.06 WEBSITE ADDRESSES

A. ONLINE SECTION 00 21 14
QBD@sfwater.org

B. SFPUC CONTRACTS & BIDS
https://webapps.sfpuc.org/bids/

C. SFPUC BIDDER PRE-QUALIFICATION
https://sfpuc.org/construction-contracts/contract-opportunities-payments/prequalify-construction

D. S.F. CONTRACT MONITORING DIVISION (CMD)
http://www.sfgov.org/cmd or https://sfpuc.org/construction-contracts/contractor-assistance/local-business-enterprise-program

E. S.F OFFICE OF LABOR STANDARDS ENFORCEMENT – MINIMUM COMPENSATION ORDINANCE
https://sf.gov/information/understanding-minimum-compensation-ordinance

F. S.F. HEALTH CARE ACCOUNTABILITY ORDINANCE
https://sf.gov/information/understand-health-care-accountability-ordinance

G. S.F. BUSINESS REGISTRATION CERTIFICATE
http://sfgov.org/tax

H. OFFICE OF ECONOMIC AND WORKFORCE DEVELOPMENT (LOCAL HIRING)
https://oewd.org/local-hire

END OF SECTION

SEALS PAGE

The various portions of the specifications and other contract documents for "Sample PUC Contract, Contract No. WW-XYZ" have been prepared under the direction of the following design professionals, licensed in the State of California.
Specifier: PMs shall stamp, sign, and date for Division 00 and PEs shall stamp, sign and date for Division 01 in accordance with Infrastructure Division policy. Exceptions may be taken (for instance on specification 01 55 26), as long as another Professional Engineer takes explicit ownership of it. If PM does not have a Professional Engineer or Architect Stamp, the Regional Project Manager or Senior Project Manager or other PM shall stamp and sign. The subsequent design professionals are required by state law to stamp, sign, and date the technical specifications to indicate their respective responsibility for the project design. Add or delete rows for each technical discipline as appropriate for the project.

PROJECT MANAGER
Name
Company

Responsible for the following specifications:
Division 00

PROJECT ENGINEER ***AND CIVIL/ MECHANICAL/ELECTRICAL/etc. ENGINEER***
Name
Company

Responsible for the following specifications:
Division 01 ***(except for Section(s) listed under engineers below) and Division XX or Section XX XX XX***

CIVIL ENGINEER
Name
Company

Responsible for the following specifications:
Divisions XX and XX or Sections XX XX XX, XX XX XX, and XX XX XX

STRUCTURAL ENGINEER
Name
Company

Responsible for the following specifications:
Divisions XX, XX, and XX or
Sections XX XX XX, XX XX XX, and
XX XX XX

MECHANICAL ENGINEER
Name
Company

Responsible for the following specifications:
Divisions XX, XX, and XX or
Sections XX XX XX, XX XX XX, and
XX XX XX

ELECTRICAL ENGINEER
Name
Company

Responsible for the following specifications:
Divisions XX and XX or
Sections XX XX XX, XX XX XX, and
XX XX XX

ARCHITECT
Name
Company

Responsible for the following specifications:
Division XX or
Sections XX XX XX, XX XX XX, and
XX XX XX

LANDSCAPE ARCHITECT
Name
Company

Responsible for the following specifications:
Division XX or
Sections XX XX XX, XX XX XX, and
XX XX XX

END OF SECTION

TABLE OF CONTENTS

DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS

INTRODUCTORY INFORMATION

Section	Title
00 01 02	ADVERTISEMENT FOR BIDS
00 01 03	KEY CONTACTS AND DETAILS
00 01 07	SEALS PAGE
00 01 10	TABLE OF CONTENTS
00 01 15	LIST OF DRAWING SHEETS

BIDDING REQUIREMENTS

Section	Title
00 21 13	INSTRUCTIONS TO BIDDERS
00 21 14	QUESTIONS ON BID DOCUMENTS
00 21 16	RELEASE AND WAIVER AGREEMENT
00 31 00	AVAILABLE PROJECT INFORMATION
00 40 13	BIDDING FORMS CHECKLIST
00 41 00	BID FORM
00 41 10	SCHEDULE OF BID PRICES
00 43 13	BID BOND
00 43 20	ACKNOWLEDGMENT OF RECEIPT OF ADDENDA
00 43 36	PROPOSED SUBCONTRACTORS FORM
00 43 37	PROPOSED SUBCONTRACTORS FORM FOR ALTERNATE WORK
00 45 13	BIDDER'S QUALIFICATIONS
00 45 19	NON-COLLUSION AFFIDAVIT
00 45 57/PLA	CERTIFICATION FORM FOR THE WSIP PLA AND SSIP/AWSS PUMP STATION 2 EXTENSION AGREEMENT LOCAL AREA APPRENTICESHIP AND EMPLOYMENT OPPORTUNITIES PROGRAM
00 45 58	INITIAL EMPLOYMENT PROJECTION
00 45 59	AGREEMENT TO HIRE APPRENTICES FROM PARTICIPATING REFERRAL AGENCIES
00 45 60	HIGHEST PREVAILING WAGE RATE CERTIFICATION
00 45 70	CERTIFICATE OF BIDDER REGARDING NONDISCRIMINATION IN CONTRACTS AND BENEFITS
00 45 82	CERTIFICATION OF BIDDER REGARDING DEBARMENT AND SUSPENSION
00 45 85	BUSINESS TAX REGISTRATION DECLARATION
00 45 86	BUSINESS REGISTRATION CERTIFICATE REQUIREMENT
00 45 87	CERTIFICATE OF BIDDER REGARDING APPRENTICESHIP TRAINING PROGRAM
00 45 88	CERTIFICATE OF SUBCONTRACTOR REGARDING APPRENTICESHIP TRAINING PROGRAM

00 49 01	CMD ATTACHMENT 1 – CONTRACT MONITORING DIVISION REQUIREMENTS FOR CONSTRUCTION CONTRACTS
CMD2B	FORM 2B: "GOOD FAITH EFFORTS" REQUIREMENTS FORM
CMD3	FORM 3: CMD COMPLIANCE AFFIDAVIT
CMD6	FORM 6: CMD LBE SUBCONTRACTOR PARTICIPATION AFFIDAVIT
CMD6A	FORM 6A: CMD LBE TRUCKING FORM
00 49 12	EXPERIENCE STATEMENT
00 49 14	CERTIFICATION OF SUBCONTRACTOR, LOWER-TIER SUBCONTRACTOR OR SUPPLIER REGARDING DEBARMENT AND SUSPENSION
00 49 16	DEPARTMENT OF INDUSTRIAL RELATIONS REQUIREMENTS
00 49 18	REQUEST FOR PRODUCT SUBSTITUTION

CONTRACTING REQUIREMENTS

Section	Title
00 52 00	AGREEMENT FORM
00 52 10	PROJECT LABOR AGREEMENT – LETTER OF ASSENT
00 61 13	PERFORMANCE AND PAYMENT BOND FORM
00 61 13/R	PERFORMANCE AND PAYMENT (LABOR AND MATERIAL) BOND RIDER FORM
00 62 20	SUBCONTRACTING PARTICIPATION REQUIREMENTS AND NON-DISCRIMINATION REQUIREMENTS
00 63 30	ESCROW AGREEMENT FOR SECURITY DEPOSITS IN LIEU OF RETENTION
00 64 00	CMD CONTRACT FORMS
CMD7	FORM 7: CMD PROGRESS PAYMENT FORM
CMD8	FORM 8: CMD EXIT REPORT AND AFFIDAVIT
CMD9	FORM 9: CMD PAYMENT AFFIDAVIT
CMD10	FORM 10: CMD CONTRACT MODIFICATION FORM
00 72 00	GENERAL CONDITIONS
00 73 00	SUPPLEMENTARY CONDITIONS
00 73 00/APA	APPENDIX A: PERMITS AND AGREEMENTS TO BE OBTAINED BY THE CITY
00 73 00/APB	APPENDIX B: PERMITS AND AGREEMENTS TO BE OBTAINED BY THE CONTRACTOR
00 73 02	CONTRACT TIME AND LIQUIDATED DAMAGES
00 73 10	DISPUTE RESOLUTION ADVISOR SPECIFICATION
00 73 10/A	DISPUTE RESOLUTION ADVISOR THREE-PARTY AGREEMENT
00 73 16	INSURANCE REQUIREMENTS
00 73 18.10	PROJECT LABOR AGREEMENT
00 73 19	HEALTH AND SAFETY REQUIREMENTS
00 73 19/E	EXHIBIT A: ENERGIZED ELECTRICAL WORK PERMIT FOR CONTRACTORS
00 73 20	EXISTING UTILITY FACILITIES
00 73 21	UTILITY CROSSINGS SPECIFICATIONS
00 73 25	ARCHAEOLOGICAL CONDITIONS
00 73 30	LOCAL HIRING REQUIREMENTS
00 73 63	SECURITY REQUIREMENTS

00 73 73	STATUTORY AND OTHER REQUIREMENTS
00 73 73/APA	APPENDIX A: NOISE CONTROL ORDINANCE
00 73 73/APB	APPENDIX B: EXCAVATION, GENERAL REQUIREMENTS
00 73 73/APC	APPENDIX C: INDUSTRIAL WASTE ORDINANCE #19-92
00 73 73/APD	APPENDIX D: INDUSTRIAL WASTE DISCHARGE LIMITS INTO CITY'S SEWERAGE SYSTEM
00 73 73/APE	APPENDIX E: GUIDELINES FOR PLACEMENT OF BARRICADES AT CONSTRUCTION SITE

DIVISION 01 – GENERAL REQUIREMENTS

Section	Title
01 11 00	SUMMARY OF WORK
01 14 13	ACCESS TO SITE
01 20 00	PRICE AND PAYMENT PROCEDURES
01 21 50	MOBILIZATION ITEM
01 24 13	VALUE ENGINEERING
01 25 13	PRODUCT SUBSTITUTION PROCEDURES
01 29 73	SCHEDULE OF VALUES
01 31 00	PROJECT MANAGEMENT AND COORDINATION
01 31 19	PROJECT MEETINGS
01 31 33	PARTNERING REQUIREMENTS
01 31 34	THIRD-PARTY FACILITATOR AGREEMENT
01 32 16	CONSTRUCTION PROGRESS SCHEDULE
01 32 41	SURVEYING
01 33 00	SUBMITTAL PROCEDURES
01 35 43	ENVIRONMENTAL PROCEDURES
01 35 43.13	BUILDING-RELATED HAZARDOUS MATERIALS
01 35 43.19	CONTAMINATED SOILS IN EXCAVATION
01 35 48	ADDITIONAL CLEAN CONSTRUCTION REQUIREMENTS ON MAJOR CONSTRUCTION PROJECTS
01 41 00	REGULATORY REQUIREMENTS
01 41 15	EXCAVATION PERMIT REQUIREMENTS
01 42 00	REFERENCES
01 50 00	TEMPORARY FACILITIES AND CONTROLS
01 52 13	FIELD OFFICES
01 55 26	TRAFFIC CONTROL
01 56 55	TEMPORARY NOISE AND VIBRATION CONTROLS
01 57 14	CONSTRUCTION SITE RUNOFF CONTROL REQUIREMENTS
01 57 23	STORMWATER POLLUTION PREVENTION, EROSION/SEDIMENT CONTROL
01 57 29	TEMPORARY PROTECTION OF GREEN INFRASTRUCTURE

01 60 00	PRODUCT REQUIREMENTS
01 69 50	SHUTDOWNS AND SITE ACCESS
01 71 33	PROTECTION OF ADJACENT CONSTRUCTION
01 73 29	CUTTING AND PATCHING
01 74 50	CONSTRUCTION & DEMOLITION DEBRIS RECOVERY PLAN AND REPORTING REQUIREMENT
01 77 00	CLOSEOUT PROCEDURES
01 78 23	OPERATIONS AND MAINTENANCE DATA
01 78 36	WARRANTIES
01 78 39	PROJECT RECORD DOCUMENTS

DIVISIONS 02 THROUGH 48 – TECHNICAL SPECIFICATIONS

[Manual insert – List all technical Division(s) – Title(s) and Section Number(s)/Title(s) following the example below:

DIVISION 02 – EXISTING CONDITIONS

02 21 13	SITE SURVEYS AND SITE PREPARATION

DIVISION 03 – CONCRETE

03 11 00	CONCRETE FORMING
TBD	TBD

END OF SECTION

LIST OF DRAWING SHEETS

DRAWINGS

The following Drawings are incorporated as Contract Documents:

END OF SECTION

SECTION 00 21 13

INSTRUCTIONS TO BIDDERS

1.00 INSTRUCTIONS

1.01 CONTENTS OF THIS SECTION

1.01 CONTENTS OF THIS SECTION
1.02 BIDDING DEFINITIONS
1.03 BIDDING CONTACT INFORMATION
1.04 LIMITATIONS ON COMMUNICATIONS
1.05 ISSUANCE OF BID DOCUMENTS
1.06 EXAMINATION OF BID DOCUMENTS AND SITE
1.07 QUESTIONS ON BID DOCUMENTS, ADDENDA, SUBSTITUTIONS
1.08 PRE-BID CONFERENCE
1.09 BID SECURITY
1.10 BIDDER QUALIFICATIONS
1.11 LOCAL BUSINESS ENTERPRISE (“LBE”) PROGRAM
1.12 SURETY BOND PROGRAM
1.13 SUBMISSION AND OPENING OF BIDS
1.14 INFORMATION TO BE SUBMITTED AFTER BID OPENING
1.15 WITHDRAWAL OR REVISION OF BID
1.16 OBJECTIONS TO BID DOCUMENTS, PROTESTS
1.17 AWARD OF CONTRACT
1.18 CONTRACT SECURITY
1.19 EXECUTION OF CONTRACT
1.20 STATUTORY BIDDING REQUIREMENTS
1.21 DEBARMENT AND SUSPENSION CERTIFICATION REQUIREMENTS
1.22 LOCAL HIRING REQUIREMENTS

1.02 BIDDING DEFINITIONS

A. Addenda are written or graphic instruments issued by the City prior to the receipt of Bids which modified or interpreted the Bid Documents by additions, deletions or other changes.

B. A Bid is a complete and properly executed offer, submitted in accordance with the Bidding requirements, to provide products and services and to perform the Work in accordance with the requirements of the Contract Documents.

C. The Bid Documents consist of the Advertisement for Bids, Instructions to Bidders, the Bid and all accompanying Bid forms, Bid security or bond, Contract Monitoring Division employment requirements, the Drawings, the Project Manual, and all Addenda issued prior to receipt of Bids.

D. A Bidder is a person or entity who submits a Bid.

E. The Total Bid Price is the sum stated in the Bid for which the Bidder offers to perform the Work described in the Bid Documents and the Total Bid Price shall include the entire cost of all Work necessary for a complete and fully operational structure or facility in accordance with the requirements of the Contract Documents.

F. All definitions set forth in the General Conditions (Section 00 72 00) and in other Contract Documents are applicable to the Bid Documents.

1.03 BIDDING CONTACT INFORMATION

A. For obtaining Bid Documents, submittal of bid package and other required bidding and contract documents, contact the SFPUC Contract Administration Bureau as noted in Article 1.02 of Key Contacts and Details Section 00 01 03.

B. For questions on the Bid Documents and submittal of requests for substitutions during the Bid period, contact the SFPUC Contract Administration Bureau as noted in Article 1.02 of Key Contacts and Details Section 00 01 03.

C. For questions on CMD Bid Documents and submittal of required CMD Forms, contact the Contract Monitoring Division Contract Compliance Officer as directed in Article 1.03 of Key Contacts and Details Section 00 01 03.

1.04 LIMITATIONS ON COMMUNICATIONS

A. On February 9, 2021, the SFPUC adopted a Competitive Selection Process Communications Policy, by Resolution No. 21-0022, to assure that the competitive selection process which results in a recommendation for award is fair and impartial, and the competitive selection of contractors must reflect the exercise of public duties in a manner that maintains the integrity of the competitive process. Refer to: https://infrastructure.sfwater.org/fds/fds.aspx?lib=SFPUC&doc=1162984&data=447748840

1. From the earliest of either (a) publication of the contract on the SFPUC's Contract Advertisement Report or (b) publication date of the Advertisement for Bids until either (a) the date of award or (b) when the SFPUC has otherwise terminated the solicitation, Bidders, subcontractors, vendors and/or their representatives or other interested parties, may communicate with the SFPUC Contract Administration Bureau to request Bid Documents, submit a Question on Bid Documents, and otherwise obtain general information about this contract that is available or will be made available to all Bidders.

2. The SFPUC strictly prohibits any attempt to engage in self-selective communications with any member of the SFPUC, City and County of San Francisco employee, including any SFPUC employee (SFPUC staff), SFPUC consultant or contractor, or other individual participating in the development of this contract, except as instructed in this Instruction to Bidders. In other words, only public information may be solicited. Failure to comply with this communications protocol may result in the disqualification of the Bidder or potential Bidder from submitting a Bid. This protocol does not apply to communications with the City regarding business not related to the

Advertisement for Bids or general communications pertinent to this contract, such as communications with individuals listed in Section 00 01 03 – Key Contacts.

1.05 ISSUANCE OF BID DOCUMENTS

A. Bid Documents may be obtained from SFPUC Contract Administration Bureau as described in the Advertisement for Bids.

B. The Bid Documents are also available for inspection at SFPUC Contractors Assistance Center. Please visit https://sfpuc.org/construction-contracts/contractor-assistance/contractors-assistance-center for addtional information.

C. The City, at its sole discretion, may choose to distribute electronic copies or issue CDs of the Bid Documents with files in Adobe Acrobat format for the convenience of the Bidders. The official copy of the Bid Documents shall be the printed copy kept by SFPUC Contract Administration Bureau at 525 Golden Gate Avenue, 8th Floor, San Francisco, California. In the event of discrepancies between the official copy of the Bid Documents and the electronic files, the official copy shall prevail. Subsequent addenda will be posted on the SFPUC website and issued via e-mail to all plan holders on the plan holder list as maintained by SFPUC Contract Administration Bureau.

1.06 EXAMINATION OF BID DOCUMENTS AND SITE

A. Before submitting a Bid, Bidders must carefully examine the Bid Documents, visit the Site, and fully inform themselves of existing conditions and limitations, including all items described in the Bid Documents. No consideration will be granted for any alleged misunderstanding of the materials to be furnished, Work to be performed or of actual conditions at the Site, it being understood that the tender of a Bid carries with it the agreement to complete all Work and comply with all conditions specified herein and indicated in the Bid Documents.

B. All special Site access for facility inspection and subsurface investigations shall be requested, approved and scheduled through the Contract Administration Bureau.

1. Persons requesting special site access must identify the Bidder being represented, who must be on file with the SFPUC as a plan holder.

2. **No discussion, dissemination of information or clarification of the Bid Documents will be given during Site access.** A City representative must accompany each person or group requesting special site access.

3. Length of time of tours, the dates, times, total number of tours to be scheduled, and areas open for special Site access are limited and must be scheduled in advance.

4. No adjustment in the Contract Sum will be allowed because of a Bidder's inability to gain access to the Site during the Bid period.

C. Available Project Information are available to Bidders as described in Section 00 31 00.

D. The submission of a Bid will constitute an incontrovertible representation by Bidder of the following:

1. Bidder has complied with every requirement of this Article "Examination of Bid Documents and Site", and

2. the Total Bid price is premised upon performing and furnishing the Work required by the Contract Documents without exception; and

3. the Contract Documents are sufficient in scope and detail to accurately describe all terms and conditions for the performance of the Work; and

4. it is understood that information about hazardous materials, physical or other conditions or obstructions, indicated on the Bid Documents, has been obtained with reasonable care and has been recorded in good faith. There is no express or implied warranty that such information is correctly shown. Bidder must take into account the possibility that actual conditions affecting cost or quantities of Work may differ from those indicated on the Bid Documents.

E. Bidder must give due consideration to the intricate and difficult conditions which involve coordinating and interfacing with other contractors at the Site and which may affect the scheduling of the Work.

F. Bidder shall include in its Total Bid Price the entire cost of all Work necessary for a complete and fully operational structure or facility in accordance with the requirements of the Contract Documents.

1.07 QUESTIONS ON BID DOCUMENTS, ADDENDA, SUBSTITUTIONS

A. Questions on Bid Documents. Prior to receipt of Bids, should a Bidder find discrepancies, ambiguities, or conflicts in the Bid Documents, or should there be doubt as to meaning of a provision or requirement, the Bidder shall at once notify the City in writing using the Questions on Bid Documents ("QBD") form Section No. 00 21 14. Delivery shall be via facsimile at: (415) 553-4896 or email to QBD@sfwater.org. The City may not answer questions received less than 10 days prior to the date for opening Bids.

B. Addenda. Interpretations or clarifications considered necessary by the City in response to QBD will be issued by written Addenda to all Bidders of record. Only questions answered by formal written Addenda will be binding; oral and other interpretations or clarifications will be without legal effect, including the QBD question and answer document.

1. The City may also issue Addenda to modify the Bid and/or Contract Documents as deemed necessary or advisable by the City.

2. Each Bidder shall be responsible for ascertaining, prior to submittal of its Bid, that is has received all issued Addenda. Bidders shall acknowledge Addenda by number and date received using Section 00 43 20 (Acknowledgement of Receipt of Addenda). Refer to Section 00 43 20 for additional instructions.

C. Substitutions. The products specified in the Bid Documents establish a minimum standard of required type, function and quality that substitutions must meet to be considered acceptable to the City. To obtain acceptance of unspecified "or equal" products, systems, materials or services, only Bidders may submit a completed QBD form accompanied by a Request for Product Substitution form (Section 00 49 18) and required supporting documentation. Bidders shall submit properly-completed substitution requests no later than 10 days prior to the date for opening bids. However, the City is not obligated to review substitution requests during the Bid period.

1. The burden of proof of the merit of the proposed substitute item is upon the Bidder. Insufficient information will be grounds for rejection of a proposed substitution.

2. The City's decision of approval or disapproval of a proposed substitute item will be final and conclusive as to all Bidders.

3. If the City approves a proposed substitute item, such approval will be set forth in an Addendum issued to all prospective Bidders.

4. Refer to Article "Information to be Submitted after Bid Opening" for requirements regarding requests for substitution submitted by the successful Bidder after award of the Contract.

5. Bidders must base their Bids on materials, products, services, and systems specified in the Contract Documents or listed by name in Addenda.

1.08 PRE-BID CONFERENCE

A. A pre-bid conference will be held at the place and no later than the date and time specified in the Advertisement for Bids, for discussion of the Contract Documents and specific project requirements, and the City's Local Business Enterprise and surety bond programs. The City's representatives will be present at the pre-bid conference to receive questions. Subsequently, an Addendum incorporating the City's responses to questions or QBD will be issued, if deemed necessary by the City.

B. Bidders are encouraged to attend the pre-bid conference.

1.09 BID SECURITY

A. Bidders must submit a Bid Security, in an amount equal to 10% of the Total Bid Price, with each Bid. The City will reject as non-responsive any Bid submitted without the necessary Bid Security.

1. Contractor shall submit images or a scanned copy of the entire original hardcopy Bid Security with Bid submittal on the Bid Due Date before 2:00PM.

2. The original hardcopy Bid Security shall be mailed in a sealed envelope that is postmarked no later than the date of Bid opening and addressed to:

   SFPUC Contract Administration Bureau
   525 Golden Gate Ave., 8th Floor
   San Francisco, CA 94102

B. The Bid Security may be in the form of a corporate surety bond, a certified check payable on sight to the City and County of San Francisco (for Bid Security amounts less than or equal to $15,000), or an irrevocable standby letter of credit, on a bank or trust company doing business and having an office in the State of California, having a combined capital and surplus of at least fifty million dollars ($50,000,000), and subject to supervision and examination by Federal or State authority, as provided for in Administrative Code section 6.21(a)(4). Upload an image(s) of this document before Bids are due and mail the original, ensuring a postmark no later than the date Bids are due.

C. If a Bidder uses a Bid Bond for its Bid Security, the Bidder shall use a hardcopy version of the Bid Bond form provided by the City (Section 00 43 13) or an exact, true and correct photocopy of such form. The Bid Bond form may not be retyped, reformatted, transcribed onto another form, or altered in any manner except for the purpose of completing the form. A Bidder's failure to use the City's Bid Bond form may result in rejection of the Bidder's Bid.

D. If a Bid Bond is submitted, the Bond shall be duly executed on behalf of the surety in accordance with applicable law. Submitted Bid Bonds shall contain **ORIGINAL** signatures. In addition, the surety executing the Bid Bond shall be legally authorized to engage in the business of furnishing surety bonds in the State of California, and shall have either a current A.M. Best Rating of not less than "A-, VIII" or shall be listed in the current version of the United States Department of the Treasury's Listing of Approved Sureties (Department Circular 570).

E. If an irrevocable standby letter of credit is submitted, Bidder shall submit the letter of credit on a form provided by or approved in advance by the City. If Bidder intends to submit an irrevocable standby letter of credit with its Bid, it shall notify the SFPUC Contract Administration Bureau as noted in Article 1.02 of Key Contacts and Details, Section 00 01 03, at least five business days prior to the date of Bid opening.

F. If the successful Bidder fails to execute the Contract and/or furnish all items required by the Bid Documents within the time limits specified, the City may reject such Bidder's Bid and select the next apparent lowest responsible Bidder until all Bids have been exhausted or the City may reject all Bids. The Bidder whose Bid is rejected for such failure(s) shall be liable for and forfeit to the City the amount of the difference, not to exceed the amount of the Bid Security, between the amount of the Bid of the Bidder so rejected and the greater amount for which the City procures the Work.

1.10 BIDDER QUALIFICATIONS

A. San Francisco Administrative Code Chapter 6 prohibits the SFPUC from awarding a construction contract to a contractor that has not substantiated its record of safe performance on construction projects. Bidders shall fully complete the Safety Prequalification Web Form to permit the SFPUC to evaluate this aspect of Bidders' responsibility.

1. **The SFPUC encourages Bidders to complete the Safety Prequalification Web Form (refer to https://sfpuc.org/construction-contracts/contract-opportunities-payments/prequalify-construction for instructions) at least 3-weeks prior to the date of Bid opening**. **However, Bidders must complete the Safety Prequalification Web Form no later than 7 calendar days prior to the date of Bid opening.** SFPUC will endeavor to notify each Bidder promptly whether or not it passed. A Bidder that has passed can complete its Bid with confidence. Conversely, a Bidder that does not pass may be able to avoid Bid preparation costs. The SFPUC in its sole discretion may consider and grant or deny a request for additional time to complete the Safety Prequalification Web Form.

2. **Bidders must submit supplemental information requested by SFPUC, if any, no later than 7 calendar days prior to the date of Bid opening**. SFPUC in its sole discretion may consider and grant or deny a request for a time extension to submit supplemental information (e.g., Step 3 safety documents) up to and after the date of Bid opening but shall not be obligated to consider or grant such a request. SFPUC may decline to open the Bid of any Bidder that has not timely completed the Safety Prequalification Web Form or has not submitted SFPUC's requested supplemental information and return the unopened Bid to the Bidder.

3. Bidder must successfully pass Step 1 or Step 2 of the Safety Prequalification Web Form, or achieve a minimum safety score issued by the SFPUC in Step 3 prior to SFPUC considering a Bid complete.

   a. SFPUC will notify Bidders who have passed the Safety Prequalification prior to or on the date of Bid opening. SFPUC reserves the right to request and consider additional safety information at any time, although it has no duty to do so.

   b. A Bidder's failure to timely achieve safety prequalification from SFPUC may result in award of the contract to a responsible Bidder that submitted the next-lowest responsive bid. SFPUC reserves the right to reject all bids.

   c. The Contractor to which SFPUC awards the Contract will be obligated to meet or exceed all requirements set forth in Section 00 73 19 – Health And Safety Requirements and, if applicable, Section 01 11 00 – Summary Of Work.

B. In addition to the safety pre-qualification information previously provided and as a condition to the award of the Contract, apparent low Bidder, and any other Bidder so requested, shall, within the period specified in Section 00 40 13 – Bidding Form Checklist, submit to the Contract Administration Bureau the information required by this Bidder Qualifications Paragraph regarding the qualifications and experience of Bidder and certain proposed key team members and entities, i.e., Subcontractors and/or Suppliers, proposed to perform the Work. Failure to timely provide and furnish complete information by the deadlines listed in Section 00 40 13 may result in a determination that Bidder is not responsible and result in the rejection of Bidder's bid. No award will be made until a Bidder submits complete qualification information to the City. Unless otherwise noted, information related to years shall be based on the time before the date of the originally announced bid opening date of this contract and information related to valuation shall be based on dollars valued during the month and year of the month before the originally announced bid opening date of this contract against dollars valued at a project's final completion, using either the CPI Inflation Calculator at https://www.bls.gov/data/inflation_calculator.htm. For example, using the CIP Inflation Calculator, a $5M project completed in January 2015 can be listed as $6.5M if the originally announced bid opening for this contract was in August 2023 (use July 2023 in calculator). SFPUC reserves the right to accept and consider Bidder's calculations information from other sources (e.g., Engineering News-Record Construction Cost Index, 20-city average).

1. Specifically, the apparent low Bidder and any other Bidder so requested shall submit to the Contract Administration Bureau the following Sections within the period specified in Section 00 40 13 – Bidding Form Checklist: (i) a completed and executed Release and Waiver Agreement (Section 00 21 16); (ii) a completed Bidder's Qualifications (Section 00 45 13), as required by Subparagraph C, below; (iii) completed Experience Statements (Section 00 49 12), as required by Subparagraph D, below.

2. To evaluate Bidder's ability to perform the Work in accordance with the Contract Documents to the City's satisfaction, the City may conduct reasonable investigations and reference checks of Bidder, proposed Subcontractors, Suppliers, key personnel and other persons and organizations as City deems necessary to assist in its evaluation of Bidder's Bid and to establish Bidder's responsibility.

3. In addition, the SFPUC seeks to promote diversity within its contracting opportunities. **Thus, the SFPUC strongly encourages bids from Bidders that optimize the use of S.F. Small and Micro-LBE certified subcontracting firms.** The SFPUC also seeks to further optimize the use of contractor teams that reflect the diversity of the City and County of San Francisco. **As such, the City recommends that Bidders consider the composition of their teams in terms of gender, age, ethnicity, and race, and to utilize teams that include a diverse mix of staff at all organizational levels.**

Project Team shall refer to the following guidelines to develop the qualification and experience requirements that will be verified during the Bid and Award phase (see link):
https://infrastructure.sfwater.org/fds/fds.aspx?lib=SFPUC&doc=1213708&data=467277580

C. Bidders' Qualification Statement.

1. Submit sufficient information on the Bidder's Qualification Statement form (Section 00 45 13), or Experience Statement (Section 00 49 12 for Bidder's Subcontractors) and additional sheets as necessary, to demonstrate to the satisfaction of the City that Prime Contractor (or, if a JV, the managing partner or sponsor or if Bidder's Subcontractor, the Subcontractor) has:

   a. ***[Manual Insert – Here, specify specific qualification requirements applicable to the prime contractor or managing JV partner.***

2. The required qualifications and experience may be demonstrated by any combination of experience/qualifications possessed by a Prime Contractor, a JV partner, and/or a Subcontractor. If a Bidder uses a Prime Contractor's or a JV partner's experience/qualifications to meet this requirement, Bidder must include the relevant information on the Bidder's Qualification Statement (Section 00 45 13) (or on additional sheets, as necessary). If Bidder uses a Subcontractor to meet this requirement, Bidder must include the relevant information on the applicable Experience Statement form (Section 00 49 12).

D. Experience Statements. Submit sufficient information on completed Experience Statement forms (Section 00 49 12), and additional sheets as necessary, to demonstrate to the satisfaction of the City the qualifications and experience of the key personnel and Subcontractors identified below. Submit a separate Experience Statement for each key person and Subcontractor identified below.

1. ***[Manual insert – Identify key team member(s) and the applicable experience/qualification requirement(s) Be specific.]***

2. ***[Manual insert – Identify the intended type(s) of subcontracted work, such as welding, crane operation, etc.]***

E. The City will promptly notify apparent low Bidder in writing if the City, after due investigation, has any reasonable objection to any person or entity proposed in response to Subparagraphs C and D, above, and will request apparent low Bidder to submit an acceptable substitute without an increase in Bid price, subject to the restrictions set forth in the Subletting and Subcontracting Fair Practices Act (California Public Contract Code §4100 et. seq.).

1. If apparent low Bidder declines or fails to make such substitution within 10 working days from the date of the City's request, the City may proceed to award the Contract to the responsible Bidder who submitted the next lowest responsive Bid and proposes to use acceptable persons or entities. Declining to make requested substitutions may constitute, as determined by the City at its sole discretion, Bidder's refusal to enter into the Contract and result in forfeiture of the Bid Security of such Bidder.

2. Any person or entity listed for whom the City does not make a written objection before award of the Contract will be deemed acceptable to the City, subject to revocation of such acceptance after the effective date of the Agreement as provided in Section 00 72 00.

3. No acceptance by the City of any such person or entity shall constitute a waiver of the right of the City to reject defective work.

4. In the event that the Contractor seeks to substitute a key team member during the performance of the Contract, the Contractor shall submit, at least seven days prior to engaging the person, an Experience Statement (Section 00 49 12) to the City in the same manner as described above for the City's review and acceptance. The substitution is subject to the approval of the City Representative based upon qualifying experience on similar projects. Failure to obtain the City's acceptance shall not constitute a cause for delay. In addition, the City may exercise its right to stop the Work under Paragraph 2.03 of the General Conditions (Section 00 72 00) until such time as the Contractor engages persons possessing skills and qualifications acceptable to the City.

5. The substitution of Subcontractors listed on Section 00 43 36 who will perform services in excess of one-half of one percent of Contractor's Total Bid Price shall be in accordance with California Public Contract Code §4107.

6. Refer to the Article “Information to be Submitted after Bid Opening” below for information regarding the substitution of proposed "or equal" products, materials, services and systems.

1.11 LOCAL BUSINESS ENTERPRISE (“LBE”) PROGRAM

A. Bidder shall comply with all requirements of San Francisco Administrative Code Chapter 14B, Local Business Enterprise Utilization and Non-Discrimination in Contracting Ordinance, and CMD Attachment 1 – Requirements for Construction Contracts. Please read CMD Attachment 1 carefully and in its entirety. A copy of CMD Attachment 1 is located in Section 00 49 01 and CMD Forms (2B, 3, 6, 6A, 7, 8, 9, and 10) are included in the Specifications. Bidder may also refer to the following CMD website to download a copy of CMD Attachment 1: https://sf.gov/resource/2022/lbe-contract-requirements

B. The City strongly encourages bids from qualified LBEs. Pursuant to Chapter 14B.7(E) and Section 2.01 of CMD Attachment 1, bid discounts may apply. Certified Small or Micro-LBEs, SBA-LBEs, including certified non-profit organizations, may be eligible for an LBE bid discount if the LBE is CMD certified in the type of work that is specified for the prime Bidder by the SFPUC.

C. The LBE subcontractor participation requirement for this Contract is 20.00%. Refer to Section 00 01 02 for further details regarding which size category LBEs can be utilized to meet each specific LBE subcontracting requirement(s). In accordance with San Francisco Administrative Code Section 14B.8(B), in order

for the Bidder to be exempt from meeting the Good Faith effort requirements described in Part IV in CMD Attachment 1, the total amount of LBE participation must equal or exceed 27.00%. (this percentage is the LBE subcontracting participation requirement(s) plus the 35% good faith exemption percentage).

1. Pursuant to San Francisco Administrative Code Section 14B.9, Bidders are advised that the availability of Minority Business Enterprises ("MBEs"), Woman Business Enterprises ("WBEs") and Other Business Enterprises ("OBEs") to perform subcontract work on this project is as follows:

   Micro and Small-LBE subcontracting participation breakdown:

   5.00% MBE; 6.00% WBE; 9.00% OBE.

2. Bidders are further advised that they may not discriminate in the selection of subcontractors on the basis of race, gender, or any other basis prohibited by law, and that they shall undertake all required good faith steps in such a manner as to ensure that neither MBEs nor WBEs nor OBEs are unfairly or arbitrarily excluded from the required outreach steps.

D. Refer to subparagraph 1.02, A.2, of the CMD Attachment 1 for more information regarding Alternate Bid Items.

E. The City will monitor the quantities of Work and amounts paid therefor, dependent upon the method of construction and operations, for compliance with Contractor's LBE subcontracting commitments established under the provisions of Part III of CMD Attachment 1.

F. Bidders are reminded of the rules applicable to subcontracting credit for Specially Manufactured Items; refer to CMD Attachment 1, Part III, Section 3.01B. Refer to Section 01 60 00 for a list of Specially Manufactured Items for this Project, if any.

G. Acceptance of Bids shall not constitute approval by the City of the list of subcontractors submitted with any Bid. To obtain such approval, each Bidder and its subcontractors shall satisfactorily complete, execute, and submit all required CMD forms in a timely manner, and be in compliance with all other applicable provisions of the Contract Documents.

H. Submit the following forms with the Bid (refer to CMD Attachment 1):

1. Section 00 43 36 – Proposed Subcontractors Form: To receive applicable Bid discount and to meet subcontracting participation requirement(s), Bidder shall complete and submit this Form with its Bid. **An LBE subcontractor must be certified by CMD in the scope of work that the prime Bidder is listing the LBE subcontractor to perform (e.g., C-31 Construction Zone Traffic Control) in order to receive LBE credit toward the LBE subcontracting participation requirement(s). Bidder**

is responsible to verify each LBE subcontractor's certification status, which can be done by using the information provided in the following website: https://sfgov.org/cmd/. LBEs must be CMD-certified on the date of bid opening in order to receive LBE credit.

2. Section 00 43 37 – Proposed Subcontractors Form for Alternate Work (FORM 2A-A). In the event that Alternate Bid Items are included in the bid, Bidder shall complete Proposed Subcontractor From For Alternate Work. Refer to Section 1.02, subparagraph A, of CMD Attachment 1.

3. FORM 2B: "Good Faith Efforts" Requirements Form (CMD2B). All Bidders shall meet the specified LBE subcontracting participation requirement(s) and shall complete and submit Form 2B in accordance with the Form 2B instructions.

   In accordance with Section 14B.8(B) of the Administrative Code, a Bidder must demonstrate its good faith efforts to meet the LBE subcontracting participation requirement(s), except those who exceed the above stated LBE subcontracting participation requirement(s) by at least 35%. Such Bidder must also complete and submit Form 2B as required by Form 2B instructions and must submit all good faith documentation as specified in the applicable section(s) of Form 2B with its bid. Failure to meet the LBE subcontracting participation requirement(s) and demonstrate/document adequate good faith efforts shall cause the bid to be determined non-responsive and rejected. Refer to Part IV of CMD Attachment 1.

   If a Bidder exceeds the established LBE subcontracting participation requirement(s) by 35% or more, such Bidder is not required to conduct good faith efforts or to submit evidence of good faith efforts. Such Bidder shall complete and submit Form 2B with its bid as required by Form 2B instructions.

I. No later than period specified in Section 00 40 13 – Bidding Forms Checklist, the apparent low Bidder, and any other Bidder so requested, shall submit completed and properly signed the following CMD Forms to the attention of the CMD Contract Compliance Officer identified in Key Contacts and Details Section 00 01 03.

   1. FORM 3: CMD Compliance Affidavit (CMD3).

   2. FORM 6: CMD LBE Subcontractor Participation Affidavit (CMD6).

   3. FORM 6A: CMD LBE Trucking Form (CMD6A). (if applicable)

J. Failure to submit properly completed CMD Bid forms may render the Bidder non-responsive and may be cause for rejection of its Bid.

1.12 SURETY BOND PROGRAM

A. Bidders are alerted to the City's surety bond program, which assists LBE contractors in obtaining bonding and financing for contracts awarded by the SFPUC. For further information regarding enrollment eligibility and program services contact Jennifer Elmore at (415) 217-6578.

1.13 SUBMISSION AND OPENING OF BIDS

A. Bids shall be submitted at SFPUC Contract Administration Bureau, no later than the date and time, and at the place specified in the Advertisement for Bids, or as subsequently specified if changed by Addendum.

1. The deadline for submitting Bids will be the time stated in the Advertisement for Bids, exactly, the Pacific Standard Time determined per www.time.gov.

2. The City may decline to accept Bids received after the specified date and time.

B. Bidder shall fill in all blanks as appropriate on the Bid Form (Section 00 41 00) and shall submit with its Bid the forms listed in the Bidding Forms Checklist (Section 00 40 13), properly completed and executed.

C. Bidders shall submit files containing Bids and all Bid-related documents via a ShareFile link that the City will provide to all Plan Holders. Bidders shall include in the filename the text "Bid_ WW-XYZ." Bidders shall submit their Bid Documents using the specified format of "Specification Section Number Company Name." Bidders may access the Zoom meeting described in Section 00 01 02 ¬ Advertisement For Bids to see if their documents have been received one hour prior to the bid due date and time. Bidders may submit their bids multiple times, as information changes. The City will consider only the last file submitted by a Bidder in the event of duplicate forms or files. Bidders are encouraged to submit non-cost related files ahead of time to confirm their connection and ability to transmit files. Contractors must email CAB@sfwater.org and call 415-551-4603 before 1:45PM to notify the SFPUC of any technical difficulties submitting a Bid. The City may postpone the bid opening up to 2 hours if the City receives a call by 1:45PM by a Plan Holder who indicates difficulty submitting a bid.

1. The original hardcopy of Section 00 41 10 Schedule of Bid Prices shall be mailed in a sealed envelope that is postmarked no later than the date of Bid opening and addressed to:

   SFPUC Contract Administration Bureau
   525 Golden Gate Ave., 8th Floor
   San Francisco, CA 94102

D. Bids that are mailed or sent by messenger service are invalid and will not be accepted. Oral, telephonic, electronic mail (email), or facsimile Bids are invalid and will not be accepted. Bids must be electronically uploaded. The following link provides an instructional document for Plan Holders with guidelines on using the

technology to upload Bids:
https://infrastructure.sfwater.org/fds/fds.aspx?lib=SFPUC&doc=1166693&data=449176805

E. Bids which are in any way conditional or which make alterations, omissions, or qualifications to the terms of the Bid or Bid Documents may be rejected as incomplete or qualified.

F. All Bid data, except signatures, shall be typed or printed legibly in non-erasable ink, with all strikeovers and corrections initialed by the person signing the bid.

G. Each Bid shall show the full business address of the Bidder and be executed with its usual signature. A Bid by a partnership shall furnish the full names of all partners and shall be signed in the partnership name by one member of the partnership or by an authorized representative, followed by the signature and title of the person signing. A Bid by a corporation, with corporate seal affixed, shall be executed with the legal name of the corporation, followed by the name of the state of incorporation, and the signature and title of the person executing. The name and title of the person executing shall also be typed or printed below the signature. When required by the City, satisfactory evidence of the authority of the officer executing on behalf of the corporation shall be furnished. Satisfactory evidence that the Bidder is currently registered with the California Department of Industrial Relations as required by California Labor Code section 1725.5 shall be furnished.

H. The City reserves the right after opening Bids to reject any or all Bids, and to waive any minor irregularity in a Bid.

I. Bids will be opened and read in public via a Zoom meeting. Please access the meeting at this website: https://sfwater.zoom.us or to participate by phone, dial +1.213.338.8477. The Meeting ID, meeting Passcode, and instructions to join are provided in Section 00 01 02 – Advertisement for Bids. Subsequently, the City will furnish Bid tabulations to a Bidder who requests said information.

1.14 INFORMATION TO BE SUBMITTED AFTER BID OPENING

A. Bidder's shall refer to Section 00 40 13 – Bidding Forms Checklist in Paragraphs C, D, and E for additional submittal requirements after date of Bid opening.

1. Refer to Article "Bidder Qualifications" of Section 00 21 13 for additional submittal requirements, if any.

2. Refer to Article "Local Business Enterprise ("LBE") Program" of Section 00 21 13 for additional CMD submittal requirements, if any.

3. Certificate of Subcontractor Regarding Apprenticeship Training Program form (Section 00 45 88) completed by each subcontractor who employs journeymen or apprentices in an apprenticeable craft or trade. If the subcontractor's Work involves one or more apprenticeable trades which are declared on Section 00 45 88 to be a signatory to a recognized apprenticeship

or training program, written proof of status must be submitted for each such trade.

4. Certification of Subcontractor, Lower-Tier Subcontractor or Supplier Regarding Debarment and Suspension form (Section 00 49 14) completed by each subcontractor, lower-tier subcontractor and supplier expected to have subcontracts of $25,000 or more.

5. Refer to Section 00 49 16 for additional Department of Industrial Relations submittal requirements.

B. Refer to Section 00 73 30 – Local Hiring Workforce Projection for additional submittal requirements after notification of award.

C. Requests For Substitution after Bid opening: If the successful Bidder wishes to propose an "or equal" or other product substitution after Bid opening, said Bidder must make such request within the period specified in Section 00 49 18, following the date of the City's written notification of award. Requests shall be granted or denied at the City's sole discretion. Refer to Section 00 49 18 and Specification Section 01 25 13.

1.15 WITHDRAWAL OR REVISION OF BID

A. Prior to the deadline for Bid opening, a Bid submitted to SFPUC ShareFile may be revised or withdrawn by notice to the SFPUC Contract Administration Bureau.

1. A revised Bid shall be worded so as to not reveal the amount of the original Bid's Total Bid Price. Bid Security shall be in an amount sufficient for the Bid as revised or resubmitted.

2. A withdrawn Bid shall be in writing and signed by Bidder and, to be effective, must be received before the deadline for Bid opening.

B. Those Bids not withdrawn prior to the scheduled time for receipt of Bids shall not be withdrawn or modified for a period of 90 days thereafter.

1.16 OBJECTIONS TO BID DOCUMENTS, PROTESTS

A. Failure by a Bidder to comply with the procedures set forth in this Paragraph will render any Objection or Protest inadequate and may result in its rejection by the City.

B. The City will accept and consider the following types of Objections and Protests if they are timely submitted and meet all other applicable requirements of this Paragraph:

1. Written Objections to any provision or legal requirement set forth in or imposed by the Bid and Contract Documents by a prospective Bidder that are apparent, or reasonably discoverable, prior to the submission of Bids;

2. Bid Protests submitted by a Bidder after Bid opening against another Bidder or Bidders; and

3. Protests submitted by a Bidder whose Bid has been rejected by the City based on a determination by the City that the Bid is non-responsive and/or the Bidder is not responsible.

C. Objections Prior to Submission of Bids. Should a prospective Bidder object on any ground to any provision or legal requirement set forth in the Bid and Contract Documents (including all Addenda), including but not limited to Objections based on allegations that: (i) the Bid or Contract Documents are unlawful in whole or in part; (ii) one or more of the requirements of the Bid or Contract Documents is onerous, unfair or unclear; (iii) the structure of the Bid Documents does not provide a correct or optimal process for the solicitation of the Work; (iv) the Bid or Contract Documents contain one or more ambiguity, conflict, discrepancy or other error; or (v) the Bid or Contract Documents unnecessarily precludes alternative solutions to the Work, the prospective Bidder must provide timely written notice of Objection as set forth below.

1. An Objection must be in writing and must be received by the City no later than 5:00 p.m. on the 10th working day prior to the date of Bid opening. If an Objection is mailed, the prospective Bidder bears the risk of non-delivery within the required time period. Objections should be transmitted by Certified Mail-Return Receipt Requested or by other means that objectively establish the date of receipt by the City. Telephoned Objections will not be considered.

2. Objections must be delivered to:

   San Francisco Public Utilities Commission
   Contract Administration Bureau
   Attn: Derek Wong
   RE: WW-XYZ, Sample PUC Contract
   525 Golden Gate Avenue, 8th Floor
   San Francisco, CA 94102

3. The Objection shall state the basis for the Objection, refer to the specific requirement or portion of the Bid or Contract Documents at issue, and shall describe the modification to the Bid or Contract Documents sought by the prospective Bidder. The Objection shall also include the name, address, telephone number, and email address of the person representing the prospective Bidder.

4. The City, at its discretion, may make a determination regarding an Objection without requesting further documents or information from the prospective Bidder who submitted the Objection. Accordingly, the initial Objection must include all grounds of objection and all supporting documentation or evidence reasonably available to the prospective Bidder at the time the Objection is submitted. If the prospective Bidder later raises new grounds or evidence that

were not included in the initial Objection, but which could have been raised at that time, then the City may not consider such new grounds or new evidence.

5. Upon receipt of a timely and proper Objection, the City will review the Objection and conduct an investigation as it deems appropriate. As part of its investigation, the City may consider information provided by sources other than prospective Bidder. At the completion of its investigation, the City will provide a written determination to the prospective Bidder who submitted the Objection. If required, the City may extend the Bid opening date to allow sufficient time to review and investigate the Objection, and issue Addenda to all Bidders incorporating any necessary changes to the Bid or Contract Documents.

6. Objections not received within the time and manner specified will not be considered. A Bidder's failure to provide the City with a written Objection as specified above on or before the time specified above shall constitute a complete and irrevocable waiver of the ground(s) of objection and forfeit the Bidder's right to raise such ground(s) of objection later in the procurement process, in a Government Code Claim, or in other legal proceedings.

7. A Bidder may not rely on an Objection submitted by another Bidder, but must timely pursue its own Objection.

D. Bid Protest Against Another Bidder. A Bidder may file a protest with the City against another Bidder or Bidders subject to the provisions of this Paragraph. The procedures and time limits set forth in this Paragraph are mandatory and are a Bidder's sole and exclusive remedy in protesting other Bidders' Bids. **Failure to comply with these procedures shall constitute a complete and irrevocable waiver of any right to pursue the Bid Protest, including filing a Government Code claim or other legal proceedings.** Bid Protests shall be subject to the following time limitations, restrictions and procedures:

1. A Bid Protest shall be in writing and shall be received by the City no later than 5:00 p.m. on the 5th working day after the date of Bid opening. If a Bid Protest is mailed, the Bidder filing the Protest bears the risk of non-delivery within the required time period. Protests should be transmitted by Certified Mail-Return Receipt Requested or by other means that objectively establish the date of receipt by the City. Telephoned Protests will not be considered.

2. The Bidder filing the Protest must concurrently transmit a copy of the initial Protest document and any attached documentation to the other Bidder(s) who may be adversely affected by the outcome of the Protest.

3. The City will provide the protested Bidders with 5 working days from their receipt of a Bid Protest to respond to the Protest.

4. Bid Protests, responses, and supplemental information, if any, shall be transmitted to the SFPUC Contract Administration Bureau.

5. The Bid Protest shall state the basis for the Protest, provide supporting evidence, and reference the specific portion(s) of the Bid or Bidder Qualifications that forms the basis of the Protest. The City will only consider protests of requirements listed in Article "BIDDER QUALIFICATIONS" of Section 00 21 13 Instructions to Bidders. A Bid Protest shall include the name, address, telephone number, and email address of the person representing the prospective Bidder.

6. The City, at its discretion, may make a determination regarding a Protest without requesting further documents or information from the prospective Bidder who submitted the Protest. Accordingly, the initial Protest submittal must include all grounds of Protest and all supporting documentation or evidence reasonably available to the prospective Bidder at the time the Protest is submitted. If the prospective Bidder later raises new grounds or evidence that were not included in the initial Protest submittal, but which could have been raised at that time, then the City may not consider such new grounds or new evidence.

7. Upon receipt of a timely and proper Protest, the City will review the Protest and conduct an investigation as it deems appropriate which, among other things, may include the review of information provided by or available from sources other than the protesting and protested Bidders. The City may also consider supplemental correspondence relating to the original ground(s) of Protest submitted by a protesting Bidder and/or a protested Bidder to the extent the City determines that such information will assist it in resolving the Protest. At the completion of its review and investigation, the City will provide a written determination to the Bidder who submitted the Protest, with a copy to the protested Bidder(s).

8. Protests not received within the time and in the manner specified will not be considered.

9. A Bidder may not rely on a Protest submitted by another Bidder, but must timely pursue its own Protest.

10. If the City determines that a Protest is frivolous, the protesting Bidder may be determined to be non-responsible and that Bidder may be determined to be ineligible for future contract awards.

E. Rejection of a Bid by the City. If the City determines that a Bidder's Bid is non-responsive or that a Bidder is not responsible, the City will issue a Notice of Non-Responsiveness or Notice of Non-Responsibility, as appropriate. The Notice will set forth the basis for the City's determination and rejection of the Bid, and will provide Bidder with the opportunity to protest the City's determination. If a Bidder wishes to protest the City's determination, it must follow the specific procedures set forth in the Notice.

1.17 AWARD OF CONTRACT

A. In accordance with California Labor Code sections 1771.1 and 1725.5, no contract may be awarded to a Bidder without proof that the Bidder and all identified subcontractors are currently registered with the California Department of Industrial Relations.

B. In accordance with Administrative Code Chapter 6, no bid is accepted and no contract in excess of $1,000,000 is awarded by the City until such time as the General Manager, San Francisco Public Utilities Commission recommends the contract for award, and the San Francisco Public Utilities Commission adopts a resolution awarding the Contract.

C. Pursuant to Charter Section 3.105, all contract awards are subject to certification by the Controller as to the availability of funds.

D. The Contract, if awarded subject to the City's right to reject all Bids, will be awarded to the responsible Bidder who submits the lowest responsive Bid based on the lowest overall cost to the City for the Total Bid Price with or without the additive alternate(s) as described in Section 00 41 10.

E. The City will issue a written notification of award of the Contract to the successful Bidder.

1.18 CONTRACT SECURITY

A. Article 10.02 of the General Conditions (Section 00 72 00) sets forth the City's requirements as to performance and payment (labor and material) bonds.

B. When the successful Bidder delivers the executed Agreement, it must be accompanied by the required performance and payment bonds.

1.19 EXECUTION OF CONTRACT

A. The successful Bidder will be required to enter into a contract substantially in the form of the Agreement Form (Section 00 52 00). After the successful Bidder delivers the documents in this Article "Execution of Contract" and City accepts each document, the Bidder shall execute an electronic copy of the Agreement as directed by the City.

1. If successful Bidder is "doing business as" company, attach a copy of "dba" certificate filed with and certified by the County Clerk.

B. Unless SFPUC extends the deadline, the successful Bidder shall deliver within 10 working days after the date of the City's written notification of award of the Contract the following properly completed and signed documents to SFPUC Contract Administration Bureau:

1. Performance and Payment Bond Form (Section 00 61 13), two original copies of each.

2. Insurance certificates and endorsements, electronic copies of each, including the following:

   a. The Contract number "WW-XYZ" and Project title "Sample PUC Contract", the agent names and telephone numbers, and name the certificate holder as follows:

      SFPUC Contract Administration Bureau
      San Francisco Public Utilities Commission
      525 Golden Gate Avenue, 8th Floor
      San Francisco, CA 94102

   b. Name as additional insured the parties as specified in Section 00 73 16, Article 1.04 "Insurance for Others."

   c. Otherwise comply with applicable requirements as specified in Section 00 73 16.

3. Corporate authority in the form of resolution or certified extract from the minutes authorizing the signatory to sign on behalf of the corporation.

4. Power of Attorney authorizing signatories to execute Performance and Payment Bonds.

5. Proof that Bidder and all subcontractors are currently registered with the California Department of Industrial Relations under California Labor Code section 1725.5.

6. Proof of Status as Signatory to Apprenticeship Program or Proof of Payment:

   a. If successful Bidder declared that it is a signatory to a recognized apprenticeship or training program on the Bid Form (Section 00 41 00), successful Bidder shall submit written proof of its status as a signatory.

   b. For each subcontractor that declared it is a signatory to a recognized apprenticeship or training program, successful Bidder shall submit written proof of each such subcontractor's status as a signatory.

   c. Successful Bidder and/or its subcontractor(s) that are not signatories to a recognized apprenticeship or training program as described herein shall be required after award of the Contract to submit with each progress payment request, beginning with the second such request, proof that successful Bidder (Contractor) or its subcontractor(s) contribute to a fund or funds to administer and conduct the apprenticeship program(s) in the area of the Site for each apprenticeable trade or craft that Contractor or its subcontractor(s) is providing labor to the Project. Such contributions shall be made on the same basis and in the same manner as the other contractors do or, where the trust fund administrators are unable to accept such funds,

Contractor and its subcontractor(s) must provide written proof of payment of a like amount to the California Apprenticeship Council.

C. Additionally, if not included with the Bid, the successful Bidder shall deliver to the City and County of San Francisco, SFPUC Contract Administration Bureau at the above address, within the time limit set forth above, the required San Francisco business tax registration numbers and contractor license numbers as specified in Article "Statutory Bidding Requirements."

1. Pursuant to section 10164 of the California Public Contract Code failure of Bidder to timely obtain proper and adequate licensing as specified shall constitute a waiver to execute the Contract and shall result in the forfeiture of Bidder's Bid security.

D. Failure to deliver to the San Francisco Public Utilities Commission one or more of the documents listed in this Article "Execution of Contract" shall constitute a refusal to enter into the Contract and may result in forfeiture of Bidder’s Bid security.

E. The successful Bidder must be in compliance with the Equal Benefits Provisions of Chapter 12B of the City's Administrative Code either at the time of contract award, or within 2 weeks of the date of contract award. Bidder's failure to timely obtain Chapter 12B compliance certification from CMD may result in award of the contract to the responsible, responsive Bidder that submitted the next lowest Bid, and so forth, or re-bidding of the contract at the discretion of the City.

1.20 STATUTORY BIDDING REQUIREMENTS

A. Pursuant to Administrative Code Section 6.21(a)(9), Bidder must submit on the Proposed Subcontractors Form attached to the Bid forms (refer to Section 00 43 36) information regarding Subcontractors that Bidder intends to employ to perform Work in an amount in excess of one-half of one percent. Bidder shall list only one such Subcontractor for each portion of the Work. Bidder shall complete and submit the Proposed Subcontractors Form with its Bid

B. Bidder shall list on the Bidder’s General Information form attached to the Bid Form its current contractor license number and San Francisco business tax registration certificate number, as well as the current contractor license number and San Francisco business tax registration certificate number for each Subcontractor listed on the Proposed Subcontractors Form. If the apparent low Bidder fails to list such registration numbers, the apparent low Bidder shall furnish such numbers when the Contract is awarded.

C. Proof that Bidder and all identified subcontractors are currently registered with the California Department of Industrial Relations under California Labor Code section 1725.5.

D. In accordance with the provisions of the California Business and Professions Code section 7028.15, a bid submitted to the City by a contractor who does not hold the license(s) required to perform the Work, issued in accordance with Chapter 9 of the

Business and Professions Code, shall be considered non-responsive and shall be rejected by the City.

1. Refer to the Drawings for Contractor's license requirements.

E. Pursuant to Chapter 12B and Chapter 14B of the Administrative Code, each Bidder shall execute and submit with its Bid the Certification of Bidder Regarding Nondiscrimination in Contracts and Benefits form attached to the Bidding forms (refer to Section 00 45 70). If a Bidder fails to submit the form as required, then the Bidder may be deemed non-responsive and its Bid may be rejected.

1. Refer to Section 00 73 73 for nondiscrimination contracting requirements.

2. As a condition precedent to award of the Contract, Bidder shall submit the completed online Chapter 12B Declaration: Nondiscrimination in Contracts and Benefits form and, if applicable, upload accompanying required documentation to the CMD for approval. Refer to Section 00 40 13 – Bidding Forms Checklist for CMD submittal requirements after the date of Bid opening.

3. If said form is not submitted timely or the CMD determines that Bidder is non-compliant, then Bidder may be deemed non-responsive and its Bid may be rejected.

F. Bidder shall complete and submit with its Bid a Highest Prevailing Wage Rate Certification form (Section 00 45 60) certifying its intention to comply with section A7.204 of the San Francisco Charter and Administrative Code Section 6.22(e) and California Labor Code section 1770 et seq.

G. Pursuant to Administrative Code Section 6.22(n), Bidder shall complete and submit with its Bid a Certificate of Bidder Regarding Apprenticeship Training Program form (Section 00 45 87).

1. Refer to Article "Information to be Submitted After Bid Opening" and Article "Execution of Contract" for additional requirements.

1.21 DEBARMENT AND SUSPENSION CERTIFICATION REQUIREMENTS

A. Bidder shall complete and submit with its Bid the Certification of Bidder Regarding Debarment and Suspension form (Section 00 45 82).

B. Bidder further agrees, by submitting its Bid, that it will require each of its subcontractors, lower-tier subcontractors and suppliers, expected to have subcontracts of $25,000 or more, to complete and submit the Certification of Subcontractor, Lower-Tier Subcontractor or Supplier Regarding Debarment and Suspension form (Section 00 49 14) to the City. Refer to Section 00 40 13 – Bidding Forms Checklist for additional submittal requirements after the date of Bid opening.

C. The inability of Bidder or its subcontractors, lower-tier subcontractors or suppliers to provide the above certifications will not necessarily result in denial of award of the

Contract. In the event that Bidder or its subcontractor, lower-tier subcontractor or supplier is unable to provide such certification because it currently violates or has previously violated conditions of the certification, a description of each instance of violation and explanation shall be attached to its certification. The certification or explanation will be considered in connection with the City's determination whether to award the Contract. However, failure of Bidder or its subcontractors, lower-tier subcontractors or suppliers to furnish a certification or an explanation may disqualify such Bidder from eligibility for award of the Contract.

D. Bidder agrees by submitting this Bid that, should Bidder be awarded the Contract, Bidder shall not knowingly enter into any covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this Contract, unless authorized by the City.

E. The certifications (Sections 00 45 82 and 00 49 14) contain material representations of fact upon which the City relies when making the determination to enter into this Contract.

1. Contractor shall provide immediate written notice to the City if, at any time Contractor learns that its certification or the certification of a lower tier participant was erroneous when submitted or has become erroneous by reason of changed circumstances.

F. The terms "covered transaction," "debarment," "suspension," "ineligible," "participant," "person," "principal," "voluntary exclusion," and "SAM Exclusions," as used in this Article shall have the meanings set forth in the "Definitions" and "Coverage" sections of 2 CFR § 180 et seq., as amended from time to time.

G. If a participant enters into a covered transaction with another person at the next lower tier, the participant must verify that the person with whom it intends to do business is not excluded or disqualified. The participant may rely upon a certification of a lower-tier subcontractor or supplier in a covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals.

H. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this Article. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

I. Except for transactions authorized under Paragraph C of this Article, if a participant in a covered transaction knowingly enters into a covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this Contract, in addition to other remedies available, the City or other government agency may terminate this Contract for cause or default.

1.22 LOCAL HIRING REQUIREMENTS

A. The San Francisco Local Hiring Policy for Construction, Administrative Code section 6.22(g), will apply to this Contract, if awarded. Refer to Contract Section 00 73 30 for information regarding local hiring requirements, including but not limited to local hiring forms that must be submitted after Contract award and prior to Notice to Proceed. In addition, the Office of Economic Workforce Development ("OEWD") maintains a "Q&A" regarding the Policy, which is available on OEWD's website at www.oewd.org.

END OF SECTION

SECTION 00 21 14

QUESTIONS ON BID DOCUMENTS ("QBD")

Potential Bidders must complete this QBD Form and submit to the fax no. or e-mail address below no later than 10 calendar days before the bid opening date.

City Use Only
QBD No.
Received by:
Date Received:
Addendum Required? ☐ Yes ☐ No
Date Sent Response:

Project: Sample PUC Contract

Contract No. WW-XYZ

To: SFPUC Contract Administration
Fax: 415-553-4896
Email: QBD@sfwater.org

CONTRACTOR'S QUESTIONS

Company Name: _____ Date _____

Contact Name: _____ Tel: _____

Title: _____ Fax: _____

Check One Only (Use separate form for each specifications and drawing question.)

☐ Spec. Section: _____ Paragraph(s): _____

☐ Drawing Sheet: _____ Detail(s): _____

Question: _____

CITY'S REPLY

☐ Mark this box if the QBD can be answered by Bidder's review of the documents. Reply with location(s) where the information can be obtained.

Reply: _____

By: _____ Bureau/Firm: _____ Date: _____

The reply is an answer to a Bidder's question. The reply does not change the Bid Documents unless the information contained therein is issued in an Addendum. At the sole discretion of the City, the question and reply may be returned to the questioner and distributed to all bidding general contractors for informational purposes.

END OF SECTION

SECTION 00 21 16

RELEASE AND WAIVER AGREEMENT

CONTRACT No. WW-XYZ

This Release and Waiver Of Liability (hereinafter the "Release") is entered into between the City and County of San Francisco through its Public Utilities Commission and _____, a Bidder.

RECITALS

1. The City and County of San Francisco through its Public Utilities Commission has issued Bid Documents for Contract No. WW-XYZ with a requirement that Bidders submit certain information to demonstrate their qualifications to perform the Work for the Sample PUC Contract.

2. In accordance with the Bid Documents, Bidder has submitted information pertaining to its qualifications, including a list of projects and project owners/owner representatives as references for its qualifications.

3. The City seeks candid comments on the Bidder's performance on the listed projects from the owners and the owners' representatives.

RELEASE AND WAIVER

Bidder hereby fully and forever releases, exonerates, discharges, and covenants not to sue, the City, its commissions and boards, officers and employees, and all individuals and entities furnishing comments on Bidder's performance, from and for, and does hereby waive, any and all claims, causes of action, demands, damages and any and all other liabilities of any kind or description, in law, equity, or otherwise, arising out of information furnished about Bidder's performance on the projects that Bidder has identified pursuant to Recital number 2, above.

INTENDED BENEFICIARIES

The City, its commissions and boards, officers and employees and all individuals and entities furnishing any information relating to Bidder's qualifications are intended beneficiaries of this Release and Waiver and are entitled to enforce its terms.

_____ _____

Bidder's Authorized Representative Date

END OF SECTION

SECTION 00 31 00

AVAILABLE PROJECT INFORMATION

1.01 SUMMARY

A. This Section describes Available Project Information and the use of data resulting from the various investigations or from available information, including existing geotechnical data and soils engineering reports, as-builts, hazardous materials survey reports, underground facilities plans, and environmental assessment information.

1.02 GEOTECHNICAL REPORTS

A. Bidders' attention is directed to a geotechnical report that was prepared for the site.

B. The geotechnical information which is part of the Contract, listed in order of precedence, is as follows:

1. Geotechnical Baseline Report ("GBR"), ***[Title, date and author of geotechnical report (NOTE: highlight all this red text and press CTRL+SPACE to convert to black non-italic text):]***.

2. Geotechnical Data Report ("GDR"), ***[Title, date and author of geotechnical report:].***

C. The geotechnical information which is for reference only, and is not part of the Contract is as follows:

1. ***[Title, date and author of geotechnical report:]***.

Modify the next three paragraphs below according to the report(s) available in paragraphs B and C above.

D. The GBR, GDR, Contract Drawings and Specifications taken in their entirety establish baselines to assist Bidders in evaluating requirements for excavating and shoring activities necessary to accomplish the work, and to assist the Contractor in planning the work and designing the temporary facilities.

E. The GBR is the primary document for evaluating unforeseen or differing conditions in accordance with the General Conditions. The baseline statements contained in the GBR will take precedence in the event of unforeseen or differing conditions irrespective of the Contractors reliance on the baselines. The Contractor accepts the level of risk associated with his reliance on independent assumptions or interpretations that are less adverse than the baselines presented in the GBR.

F. All statements, findings, and interpretations in reports identified in ***[paragraph C above]*** are those of the geotechnical consultant and the City makes no representations, either express or implied, as to the completeness or adequacy of said report.

G. Bidders shall visit the Site and familiarize themselves with existing conditions.

H. Copies of the above referenced reports are available for inspection by prospective Bidders at the SFPUC Contract Administration Bureau from the point of contact identified in Section 00 01 03.

1.03 HAZARDOUS MATERIALS REPORTS

A. The City's environmental consultant has surveyed the facility for the presence of various hazardous materials. Materials investigated may include asbestos, lead, PCB ballasts, mercury containing lamps, contaminated soils, underground storage tanks, other hazardous materials. The survey findings are documented in the following:

1. ***[Title, date and author of environmental survey report]***

B. The City has contracted for hazardous materials abatement at the Site. The abatement oversight information for this work is documented in the following:

1. ***[Title, date and author of hazardous materials abatement report]***

C. Hazardous materials surveys and reports were obtained only for the use of the City and its consultants for planning and design. Such documentation is not part of the Contract Documents, but the technical data contained in the referenced reports on which the Bidder is entitled to rely are incorporated in the Contract Documents by reference.

D. Some of the materials and items found at the Site either contain or may contain materials known to the State of California to be either hazardous, carcinogenic or reproductive toxins.

E. Copies of the above referenced reports are available for inspection by prospective Bidders at the SFPUC Contract Administration Bureau from the point of contact identified in Section 00 01 03.

1.04 UTILITY OCCUPANCY PLANS

A. Bidders' attention is directed to utility occupancy plans that were utilized in the preparation of the Contract Documents as follows:

	UTILITY	MAP	REVISION DATE
1.	***[Name of utility owner]***	***[Map reference]***	***[Revision date]***
2.	***[Name of utility owner]***	***[Map reference]***	***[Revision date]***
3.	***[Name of utility owner]***	***[Map reference]***	***[Revision date]***

B. Utility occupancy plans show existing or proposed utility locations which data have been compiled from information furnished by the various utilities.

C. Copies of the above referenced documents are available for inspection by prospective Bidders at the SFPUC Contract Administration Bureau from the point of contact identified in Section 00 01 03.

1.05 UTILITY CONTRACT DRAWINGS

A. Bidders' attention is directed to Utility Contract Drawings provided by non-governmental utility companies showing Utility Crossing and cost estimates for support, work around, and protection thereof:

	UTILITY	DOCUMENT
1.	***[Name of Utility owner]***	***[Title of Drawing Set]***
2.	***[Name of Utility owner]***	***[Title of Drawing Set]***
3.	***[Name of Utility owner]***	***[Title of Drawing Set]***

B. Refer to Section 00 73 21 – Utility Crossing Specifications, Section U1. Support, Work Around, and Protect Exiting Utility Company Facilities – General Specifications for additional information regarding Utility Contract Drawings.

C. Copies of the above referenced documents are available for inspection by prospective Bidders at the SFPUC Contract Administration Bureau from the point of contact identified in Section 00 01 03.

1.06 ENVIRONMENTAL REPORTS

A. An ***[environmental impact report/negative declaration]***, dated ***[mo.,day, year]***, has been prepared for the City.

B. The City's environmental consultant has investigated the Project Site for the presence of ***[threatened or endangered species or their habitats/physical environmental impacts/social and economic impacts]***. The findings are documented in the following:

1. ***[Title, date and author of environmental survey report:]***

C. Environmental assessment information was obtained only for the use of the City and its consultants for planning and design. Said information is not part of the Contract Documents, but the technical data or mandatory mitigation requirements contained therein on which Bidder is entitled to rely are incorporated in the Contract Documents by reference.

D. Copies of the above referenced reports are available for inspection by prospective Bidders at the SFPUC Contract Administration Bureau from the point of contact identified in Section 00 01 03.

1.07 USE OF AVAILABLE PROJECT INFORMATION

A. The foregoing Available Project Information is not part of the Contract Documents unless otherwise specified. The City does not warrant the completeness of the Available Project Information.

B. The City makes no representation, either express or implied, that the conditions indicated in the drawings or records are representative of those existing at the Site, or that different conditions may not occur or materials other than or in proportions different from those indicated may not be encountered. Refer to Article 3.04 of General Conditions (Section 00 72 00).

1.08 PRE-BID VISIT TO WORK SITE

A. Prior to bidding, Bidders may make their own investigations to satisfy themselves as to actual Site conditions, but such investigations shall be performed only under the provisions of Section 00 21 13.

END OF SECTION

SECTION 00 40 13

BIDDING FORMS CHECKLIST

A. Each Bidder is encouraged to complete **at least 3 weeks prior to the date of Bid opening** and in accordance with Section 00 21 13 the following form, properly completed with all required applicable documentation:

- ❑ Safety Prequalification Web Form (refer to https://sfpuc.org/construction-contracts/contract-opportunities-payments/prequalify-construction for instructions)

B. Each Bidder shall submit **with its Bid** the following forms, properly completed and executed with all required documentation as applicable:

- ❑ Executed Bid Form (Section 00 41 00), with Contractor's license number and expiration date
- ❑ Schedule of Bid Prices (Section 00 41 10)
- ❑ Bid Bond (Section 00 43 13)
- ❑ Acknowledgment of Receipt of Addenda (Section 00 43 20)
- ❑ Proposed Subcontractors Form (Section 00 43 36)
- ❑ Proposed Subcontractors Form for Alternate Work (Section 00 43 37)
- ❑ Non-collusion Affidavit (Section 00 45 19)
- ❑ Certification Form for the WSIP PLA and SSIP/AWSS Pump Station 2 Extension Agreement Local Area Apprenticeship and Employment Opportunities Program (Section 00 45 57/PLA)
- ❑ Highest General Prevailing Rate Certification (Section 00 45 60)
- ❑ Certificate of Bidder Regarding Nondiscrimination in Contracts and Benefits (Section 00 45 70)
- ❑ Certification of Bidder Regarding Debarment and Suspension (Section 00 45 82)
- ❑ Business Tax Registration Declaration (Section 00 45 85)
- ❑ Business Registration Certificate Requirement (Section 00 45 86)
- ❑ Certificate of Bidder Regarding Apprenticeship Training Program (Section 00 45 87)
- ❑ FORM 2B: "Good Faith Efforts" Requirements Form (CMD2B) including all good faith documentation, if applicable

C. **No later than 5 p.m. on the fifth business day after the date of Bid opening**, the Apparent Low Bidder, and any other Bidder so requested, shall submit electronically the forms listed below to the attention of the CMD Contract Compliance Officer identified in Key Contracts and Details, Section 00 01 03.

- ❑ FORM 3: CMD Compliance Affidavit (CMD3)
- ❑ FORM 6: CMD LBE Subcontractor Participation Affidavit (CMD6)
- ❑ FORM 6A: CMD LBE Trucking Form (CMD6A)

D. Deliver the forms listed below electronically to CAB@sfwater.org, as identified in Key Contacts and Details Section 00 01 03. Timely delivery of these forms is required.
5 working days following Bid Opening, submit:

- ❑ Release and Waiver Agreement (Section 00 21 16)
- ❑ Bidder's Qualifications (Section 00 45 13)
- ❑ Experience Statement (Section 00 49 12)

7 calendar days following Bid Opening, submit:

- ❑ Certificate of Subcontractor Regarding Apprenticeship Training Program (Section 00 45 88) completed by each subcontractor who employs journeymen or apprentices in an apprenticeable craft or trade.
- ❑ Certification of Subcontractor, Lower-Tier Subcontractor or Supplier Regarding Debarment and Suspension (Section 00 49 14), completed by each subcontractor, lower-tier subcontractor and supplier expected to have subcontracts of $25,000 or more.

Within 10 working days following City's written notification of award, submit:

- ❑ Escrow Bid Documents Declaration (Section 00 67 00/A) including a set of Escrow Bid Documents (Section 00 67 00) in a sealed container in accordance with Escrow Bid Documents.

Immediately following execution of the Contract, submit:

- ❑ Initial Employment Projection (Section 00 45 58)
- ❑ Agreement to Hire Apprentices From Participating Referral Agencies (Section 00 45 59)

Within 15 calendar days of notice of award, submit to SFPUC Contract Administration Bureau **and** OEWD (see contact information in Section 00 01 03):

- ❑ Local Hiring Workforce Projection (Section 00 73 30: Form 1)
- ❑ Conditional Waiver (Section 00 73 30: Form 4): to be completed by Contractor and Subcontractors with subcontracts in excess of $400,000 in the event that Contractor and/or Subcontractor(s) believe that they cannot meet applicable local hiring requirements.

E. Email the form listed below to the contact listed in the form. Timely delivery of this form is required.
5 working days following Bid Opening, submit:

- ❑ Department of Industrial Relations Requirements (Section 00 49 16)

F. For Non-compliant Bidders who checked "Not Certified" on the Section 00 45 70 Form (refer to Paragraph B above), within 10 working days following Bid Opening, submit the online 12B Declaration and all required documentation in accordance with the Chapter 12B Equal Benefits Complete Compliance Guide referenced on that Form.

G. The SFPUC General Manager reserves the right after opening Bids to reject any or all Bids, and to waive any minor irregularity in a Bid.

END OF SECTION

SECTION 00 41 00

BID FORM

TO THE San Francisco Public Utilities Commission, CITY AND COUNTY OF SAN FRANCISCO

In response to the Advertisement for Bids for the following public work:

Sample PUC Contract
Contract No. WW-XYZ

The undersigned Bidder hereby proposes and agrees to execute the required Contract, should it be awarded to said Bidder, and to do all the work and furnish all the materials therefore all in accordance with the Specifications and Drawings referred to in said Advertisement for Bids and at the prices named in the attached Schedule of Bid Prices.

The undersigned declares: That it is the Bidder (or by holding the position below indicated is authorized to execute this Bid Form on behalf of the Bidder), that said Bidder submits this Bid; that said Bidder has not, nor have any of its agents, officers, representatives or employees, been guilty of collusion with any officer or representative of the City and County of San Francisco, or with any other party or parties in the submission of this Bid; nor has said Bidder received any preferential treatment by any officer or employee of the City and County in the making or submitting of this Bid. The undersigned declares under penalty of perjury that all representations made on this Bid Form are true and correct.

The undersigned declares, under penalty of perjury under the laws of the State of California that the Bidder has read and agrees to the requirements of the Administrative Code and applicable requirements of the California Labor Code for each of the attached list of Sections:

1. Section 00 43 20 - Acknowledgment of Receipt of Addenda
2. Section 00 43 36 - Proposed Subcontractors Form
3. Section 00 43 37 - Proposed Subcontractors Form for Alternate Work
4. Section 00 45 60 - Highest General Prevailing Rate Certification
5. Section 00 45 70 - Certificate of Bidder Regarding Nondiscrimination in Contracts and Benefits

The Undersigned acknowledges that he or she has read and agrees to the sections referenced above on behalf of Bidder (initial): _____

The undersigned further certifies, under penalty of perjury under the laws of the State of California that the following Sections submitted in this Bid are true and correct:

1. Section 00 45 19 - Non-collusion Affidavit
2. Section 00 45 82 - Certification of Bidder Regarding Debarment and Suspension

The Undersigned acknowledges that he or she has read and agrees to the sections referenced above on behalf of Bidder (initial): _____

Accompanying this Bid, as required by law, is a bid security in an amount equal to at least ten percent of the Total Bid Price.

BOND OR CHECK REQUIRED: There is herewith attached, as required by law, bid security in accordance with the Section 00 21 13 – Instructions to Bidders, Article "Bid Security."

DO NOT SUBMIT a Bid, In Order to submit a Bid, you must obtain a non-watermarked version of the bidding documents from the SFPUC.

*S.F. Business Tax Requirements: The undersigned further declares, under penalty of perjury under the laws of the State of California, that, if awarded the Contract, the Bidder and its subcontractors will maintain a current business tax registration number, and understands that if the Tax Collector of the City and County of San Francisco determines that the Bidder or any of the its subcontractors do not have or maintain a current business tax registration number, the City may cancel the Contract or withhold payment.

Attestation of Compliance: The undersigned further declares that Bidder and its subcontractors, vendors and/or their representatives are compliant with the restriction on communications in accordance with Section 00 21 13 – Instructions to Bidders, Article "Limitations on Communications."

Apprenticeship Program: The undersigned further declares, that the Bidder and all of its subcontractors will comply, as a material term of the Contract, with the requirements of the State Apprenticeship Program as set forth in the California Labor Code, division 3, chapter 4 (commencing at section 3070) and section 1777.5, Administrative Code section 6.22(n), and all requests by the City to provide proof that the Bidder and all its subcontractors are in compliance with those requirements

Department of Industrial Relations Registration: The undersigned further declares that the Bidder is compliant with the registration requirements of the California Department of Industrial Relations ("DIR") under California Labor Code section 1725.5.

LOCAL BUSINESS ENTERPRISE PARTICIPATION AND NON-DISCRIMINATORY EMPLOYMENT PRACTICES: Provisions of chapters 12B and 14B (including their implementing Rules and Regulations) of the Administrative Code are incorporated herein and by reference made a part of the Bid Documents as though fully set forth. The Bidder and all subcontractors and suppliers shall comply with these provisions and shall submit all required documents in a timely manner. They are strongly encouraged to take part in pre-bid and pre-award conferences.

In Order to SUBMIT a Bid you must obtain a non-watermarked version of the bidding documents from the SFPUC.

Executed on _____ 202_____

	Name of Firm or Corporation
Telephone Number	Signature of Bidder or Authorized Representative
E-mail Address of Authorized Representative	Print Name of Authorized Representative
Contractor's California License No.	Position in Firm or Corporation
License Expiration Date	Address of Firm or Corporation
S.F. Business Tax Registration Certificate Number* *(see above)*	City State Zip Code

***Note*:** If Bidder is a corporation, set forth the legal name of the corporation together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation. If Bidder is a partnership, set forth the name of the firm together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership.

Check if you are:	Check if applicable:
☐ Certified Small ☐ Certified Small-LBE ☐ Certified SBA-LBE	☐ I am a signatory to a recognized apprenticeship or training program under chapter 4 of the California Labor Code.
Check Category that Describes Your Company: ** ☐ MBE ☐ WBE ☐ OBE	☐ I have applied to become a signatory for the trades listed below but have not been accepted. List trades:

** **Only Certified Firms**: **MBE** = Minority Business Enterprise, **WBE** = Women Business Enterprise, **OBE** = Other Business Enterprise.

END OF SECTION

SECTION 00 41 10

SCHEDULE OF BID PRICES

For constructing Sample PUC Contract,
in strict accordance with the Contract
Documents for Contract No. WW-XYZ.

_____
Name of Firm, Corporation, Partnership
or Joint Venture

_____

_____

Bidders must bid on all Bid Items
and Alternates selected by the City.
Bidders must also provide a
Daily Rate for Compensable Delay.

Entries must be in permanent ink or typed.

By signing the Bid Form, the Bidder, having examined all referenced documents and the Drawings, and the Specifications understanding the terms and conditions of the Contract Documents and the local conditions affecting the performance and costs of the Work, and having fully inspected the Site in all particulars, hereby proposes and agrees to fully perform the Work as indicated on the Drawings and in accordance with the requirements of the Contract Documents within the time stated therein, and for the following price(s):

Bid Item	Bid Item Title	Estimated Quantity	Unit*	Unit Price ($/Unit)	Amount ($)
1	Mobilization	---	LS	---	
2	Demobilization	---	LS	---	
	Use this sample item for Unit = LS or AL	---	***LS***	---	
	The example above avoids Bidders writing the same price twice when Quantity=1				
18	Contract Safety Requirements	---	LS	---	
20	Cash Allowance for Partnering Requirements and Expenses	---	LS	---	
TOTAL BID PRICE ("BASE BID" – Summation of Bid Items ***[X]*** through ***[Y]*** above.)					_____

*Note: LS = Lump Sum, EA= Each, LF = Linear Feet, SF = Square Feet, CY = Cubic Yards, AL = Allowance

Bidder acknowledges the City does not guarantee any quantities and that the Parties will establish the final payment amount be based on the actual quantities determined as provided in the Contract Documents.

The City reserves the right after opening Bids, at its sole and unfettered discretion, to reject any or all Bids, or to waive any minor irregularity in a Bid. In case of discrepancy between the sum of Bid item amounts and the Total Bid Price ("Base Bid"), the sum of said amounts shall prevail. In the case of discrepancy between words and figures, the words shall prevail. In case of discrepancy between a unit price Bid and extension thereof (in column "Amount"), including a blank Amount, the unit price shall prevail. The City requires Bidders to fill in a unit price for all unit price items; if a Bidder intends to bid $0 for a unit price item, state the unit price of "0" and do not leave a blank. Likewise, do not leave a blank for lump sum bid items. The City will not interpret a blank as $0. The City may determine a bid with a required price left blank to be non-responsive.

A. ALTERNATES: To calculate the low Bid, the City will add as many of the following alternate bid items to the project as possible based on sufficiency of the construction budget. If the low responsive Base Bid exceeds the construction budget, the City will not take any alternate bid items. If funding is available in the construction budget, the City will add Alternate(s) in the specified Order of Alternates (see table below). The City will announce both the amount available in the construction budget and the Order of Alternates after submission of Bids and immediately before the opening of the Bids.

By listing prices under the column "Alternate Amount" below for Alternates, Bidder is making an irrevocable offer to the City to provide that item at Bidder's stated price from the time of Bid submission until 6 months after Contract award. The City, at its sole discretion may add any additional alternate bid item(s) to the Contract that the City did not accept at the time of Bid opening, if funding becomes available, within up to 6 months after the City issues a written notice of Contract award. Bidder agrees to hold open its offer to provide the Alternate(s) at the price specified below during this 6-month period. The City's addition of any Alternate(s) during this period will constitute acceptance of Contractor's offer. The City may add any such Alternate(s) to the Contract by Change Order during the 6-month period.

ID	Additive Alternate Description	Alternate Amount	Order of Alternates
A1	***Bid Item Title for Alternate A1 (list in "random" order)***	$_____	*(by City, typ.)*
A2	***Bid Item Title for Alternate A2 (list in "random" order)***	$_____	
A3	***Bid Item Title for Alternate A3 (list in "random" order)***	$_____	
A4	***Bid Item Title for Alternate A4 (list in "random" order)***	$_____	

Notes:

1. Alternates shall cover all costs of alternate Work as indicated on the Bid Documents only and shall not include Work of Base Bid or any Bid items of the Base Bid. Alternate price shall include markups for overhead and profit for the specified item.
2. The City will fill in the column "Order of Alternates" subsequent to bid opening in accordance with the announced Order of Alternates.
3. The City will make the actual addition of Alternate to the Base Bid. The amount will be presumed to be additive to the Base Bid regardless if a plus or minus sign is included.
4. The column "ID" is for Alternate identification purposes only.

B. DAILY RATE FOR COMPENSABLE DELAY/COMPENSABLE TIME EXTENSION: Bidder agrees that the figure it places in Box A of the table, below is its offer for the price for the daily rate of compensation for any compensable delay caused by the City at any time during the performance of Work through Substantial Completion. Bidder agrees that it will be bound by its offered daily rate for each day of any compensable delays occurring at any time during the Contract duration. Failure of Bidder to fill in a dollar figure for the daily rate for compensable delay in Box A, below, may render the bid non-responsive.

The City will calculate the figure in Box C, below as the product of the figures in Box A ("Daily Rate for Compensable Delay") and Box B ("Number of Days (multiplier)"), below.

Box A Daily Rate for Compensable Delay	Box B Number of Days (multiplier)	Box C Extension
$ _____	30	_____ (*to be completed by City)*

The daily rate shown above will be the total amount of Contractor entitlement for each day of compensable delay caused by the City at any time during the performance of Work through Substantial Completion, and shall constitute payment in full for all delay costs, direct or indirect (including, without limitation, compensation for all extended home office overhead and field overhead), of the Contractor and all subcontractors, suppliers, persons and entities under or claiming through Contractor on the Project. The number of days of compensable delay shown as a "multiplier" above is not an estimate of the number of days of compensable delay anticipated by the City. The City will pay the daily rate of compensation only for the actual number of days of compensable delay (if any), as determined under the General Conditions and/or Supplementary Conditions. The actual number of days of compensable delay, if any, may be greater or lesser than the "multiplier" shown above.

C. LOW BID DETERMINATION: The City will determine the low Bid by calculating the sum of the Base Bid plus any Alternates as described above plus the extension amount for compensable delay ("Sum"). The City will designate the Bid with the lowest Sum as the low Bid. The City will award the Contract to the responsible Bidder submitting the lowest responsive Bid.

In the event of a tie, the responsible Bidder with the lowest responsive proposed sum of the Base Bid plus any Alternates as described above will be deemed the low Bidder. The City will calculate Bidder's LBE subcontractor participation based on the Base Bid and will not include the Alternates or compensable time extension amount in the calculation.

The original Contract Sum as set forth in the Agreement will be the sum of the Base Bid and the additive amounts for any Alternates that the City can include in the Contract Sum at the time of award based on funding availability.

The Contractor shall complete all Work within the number of calendar days specified in Section 00 73 02, beginning with and including the official date of Notice to Proceed as established by the General Manager, San Francisco Public Utilities Commission, regardless of whether the Contract is awarded under the Base Bid or with an Alternate(s). The City may include an Alternate(s) on or after the date of bid opening and within the 6-month period after the City issues a written notice of Contract award, subject to funding availability, and the City will not extend the time allowed for completion of all Work.

Bid submitted by:

_____(seal)
Name of Firm, Corporation, Partnership or Joint Venture

_____ Names of All Partners, if Partnership	_____ State of Incorporation, if Corporation
_____ Signature of Bidder or Authorized Representative	_____ Date of Bid
_____ Name and Title of Authorized Representative	

Note: If Bidder is a corporation, set forth the legal name of the corporation together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation. If Bidder is a partnership, set forth the name of the firm together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership.

END OF SECTION

SECTION 00 43 13

BID BOND

Bidder shall have this Bid Bond form executed as indicated below unless the Bid is accompanied by a certified check.

KNOW ALL BY THESE PRESENTS:

That the undersigned General Contractor as principal and the undersigned Surety as obligor, are held and firmly bound unto the City and County of San Francisco, a municipal corporation, as obligee, in the penal sum of _____ Dollars, lawful money of the United States of America, for the payment of which, well and truly to be made, we bind ourselves, our successors, executors, administrators and assigns, jointly and severally, firmly by these presents.

That the General Contractor as principal is submitting a Bid for certain work to be performed for the said City and County of San Francisco described as follows:

Sample PUC Contract
Contract No. WW-XYZ

THE CONDITION OF THIS OBLIGATION IS SUCH that if the Bid submitted by said principal be accepted and the Contract be awarded to said principal and if said principal shall within a period of ten (10) days after such award enter into the Contract so awarded and file the required performance and payment corporate surety bonds, certificates of insurance and all other items required by the Bid Documents, then this obligation shall be void, otherwise to remain in full force and effect.

IN WITNESS THEREOF, the above bounden parties have executed this instrument this _____ day of _____, 202___.

(Corporate Seal) _____
Name of Firm, Corporation, Partnership or Joint Venture

_____
Principal

By: _____

(Corporate Seal) _____
Surety

By: _____

I declare under penalty of perjury, under the laws of the State of California, that I have executed the foregoing bond under an unrevoked power of attorney. Executed on [date]_____, in [City]_____, [State]_____, in conformance with the laws of the State of California.

_____
Attorney-in-Fact

END OF SECTION

DO NOT SUBMIT a Bid. In Order to Submit a Bid, you must obtain a non-watermarked version of the bidding documents from the SFPUC.

SECTION 00 43 20

ACKNOWLEDGMENT OF RECEIPT OF ADDENDA

If Addenda to the Bid Documents have been issued for this Contract, please indicate receipt thereof by filling in the appropriate Addendum number and filling in date received below. If there are any questions on any Addenda that may have been issued, please contact the Contract Administration Bureau identified in Article 1.02 of Key Contacts and Details (Section 00 01 03). Bidder shall submit this form with its Bid.

Addendum No. _____ Date Received _____

Addendum No. _____ Date Received _____

Addendum No. _____ Date Received _____

Addendum No. _____ Date Received _____

Addendum No. _____ Date Received _____

Addendum No. _____ Date Received _____

Addendum No. _____ Date Received _____

Addendum No. _____ Date Received _____

Addendum No. _____ Date Received _____

A BID MAY BE RENDERED NONRESPONSIVE IF THE BIDDER DOES NOT ACKNOWLEDGE THE RECEIPT OF ALL ADDENDA WHICH MAY HAVE BEEN ISSUED FOR THIS CONTRACT.

Note: The above Acknowledgment of Receipt of Addenda Form is part of the Bid. Signing the Bid Form (Section 00 41 00) shall also constitute signature of this Acknowledgment of Receipt of Addenda document.

END OF SECTION

SECTION 00 43 36

PROPOSED SUBCONTRACTORS FORM

This Section implements listing requirements for:

A. Subcontractors: who will perform work in excess of one-half of one percent of the Total Bid Price [Admin. Code § 6.21(a)(9) and California Public Contract Code §§ 4100 – 4114];

B. Local Business Enterprise ("LBE"): subcontractors, suppliers and service contractors, regardless of the dollar amount of subcontract work, for which Bidder seeks LBE credit [Admin. Code Ch. 14B]; and

C. Mandatory DIR Subcontractor Registration with the California Department of Industrial Relations ("DIR").

A. Subcontractors Who Will Perform Work In Excess of ½ of 1% of Total Bid Price

Bidder must submit with its Bid a subcontractor list using the form below. Bidder must identify each subcontractor[1] that will perform work in an amount in excess of one-half of one percent of Bidder's Total Bid Price. If this project involves the construction of streets, highways, or bridges, Bidder must submit with its Bid a subcontractor list, using the form below, identifying each subcontractor that will perform work in excess of one-half of one percent of the Total Bid Price or $10,000, whichever is greater.

At a minimum, Bidder must provide the following information with its Bid for each listed subcontractor:

i. Name [Box 2];
ii. Address (place of business) [Box 3];
iii. Phone Number [Box 5];
iv. Email [Box 6]
v. California Contractor's License Number [Box 8]; and
vi. DIR Registration Number [Box 13].

Bidders must also provide the following information either with its Bid or within 24 hours of Bid opening for each listed subcontractor:

i. Portion of Work (list scope and indicate Full or Partial) [Box 4]; and
ii. Amount of Subcontract Work [Box 10].

Bidder may correct an inadvertent error in the listed California Contractor License Numbers and DIR Registration Numbers within 24 hours of Bid opening.

If the City cannot identify the intended subcontractor or portion of work based on the information Bidder provided, or where Bidder provided conflicting information, the City may consider the subcontractor or portion of work to be unlisted for purposes of Public Contract Code § 4106. An "unlisted" determination may render a Bid non-responsive if the technical specifications require that the work in question be performed by a subcontractor. In addition, an "unlisted" determination may render a Bidder not responsible on a project-specific basis if Bidder is not qualified to self-perform the work in question.

B. LBE Subcontractors, Suppliers and Service Contractors

At time of Bid, Bidder must also identify each LBE subcontractor[2], supplier and service contractor (regardless of dollar amount of subcontract) for which Bidder seeks credit toward the LBE Subcontractor Participation Requirement(s). At a minimum, Bidder must provide the following information on the subcontractor listing form submitted with its Bid for each LBE subcontractor:

i. Type of Subcontractor [Box 1];
ii. Name [Box 2];
iii. Address (place of business) [Box 3];
iv. Portion of Work (list scope and indicate Full or Partial) [Box 4];
v. Phone Number [Box 5];
vi. Email [Box 6];
vii. California Contractor's License Number (as applicable) [Box 8];
viii. Amount of Subcontract Work [Box 10]; and
ix. DIR Registration Number (as applicable) [Box 13].

Bidders must provide the remaining LBE information [Boxes 11 and 12] either with its Bid or within 24 hours of Bid opening for each LBE listed.

Bidder's failure to provide the required above-referenced information with its Bid may result in a determination that Bidder has not met the LBE subcontracting participation requirement(s) and, therefore, its Bid is non-responsive.

The Local Business Enterprise (LBE) subcontracting requirement is 20.00%. The LBE subcontracting requirement can only be met with CMD certified San Francisco Micro and Small-LBEs.

C. Mandatory DIR Subcontractor Registration

Bidder may not list a subcontractor for a public works project Bid unless the subcontractor is registered with the California Department of Industrial Relations ("DIR") pursuant to Labor Code § 1725.5 [with limited exceptions from this requirement for Bid purposes only under Labor Code § 1771.1(a)]. An inadvertent listing of a subcontractor that is not registered under § 1725.5 will not be grounds for a Bid protest or for determining a Bid nonresponsive if Bidder has met the conditions set forth in Labor Code § 1771.1(c)(1) or (2).

[1]For the purposes of Paragraph A, the term "subcontractor" shall mean a contractor as defined in Pub. Contract Code § 4113.
[2]For the purposes of Paragraph B, the term "subcontractor" shall mean a person as defined in Section 14B.2 of the Administrative Code.

1. TYPE OF SUBCONTRACTOR: ☐ First Tier; ☐ Lower Tier; ☐ Supplier; ☐ Service Contractor (e.g. Trucker)		
2. SUBCONTRACTOR NAME		
3. ADDRESS		
4. PORTION OF WORK (SCOPE): _____ ☐ Full (one subcontractor); ☐ Partial (multiple subcontractors)		
5. PHONE NO.	6. EMAIL	7. NOT USED
8. LICENSE NO.	9. SF BUSINESS TAX REG. NO.	10. AMOUNT OF SUB-CONTRACT WORK: $
11. CERTIFIED LBE? ☐ Yes; ☐ No	12. IF LBE, CHECK ALL THAT APPLY: ☐ MBE; ☐ WBE; ☐ OBE* ☐ SF-LBE; ☐ SFPUC-LBE ☐ Micro-LBE; ☐ Small-LBE; ☐ SBA-LBE	13. DIR REGISTRATION NO.

* MBE = Minority Business Enterprise, WBE = Women Business Enterprise, OBE = Other Business Enterprise.

1. TYPE OF SUBCONTRACTOR: ☐ First Tier; ☐ Lower Tier; ☐ Supplier; ☐ Service Contractor (e.g. Trucker)		
2. SUBCONTRACTOR NAME		
3. ADDRESS		
4. PORTION OF WORK (SCOPE): _____ ☐ Full (one subcontractor); ☐ Partial (multiple subcontractors)		
5. PHONE NO.	6. EMAIL	7. NOT USED
8. LICENSE NO.	9. SF BUSINESS TAX REG. NO.	10. AMOUNT OF SUB-CONTRACT WORK: $
11. CERTIFIED LBE? ☐ Yes; ☐ No	12. IF LBE, CHECK ALL THAT APPLY: ☐ MBE; ☐ WBE; ☐ OBE* ☐ SF-LBE; ☐ SFPUC-LBE ☐ Micro-LBE; ☐ Small-LBE; ☐ SBA-LBE	13. DIR REGISTRATION NO.

* MBE = Minority Business Enterprise, WBE = Women Business Enterprise, OBE = Other Business Enterprise.

1. TYPE OF SUBCONTRACTOR: ☐ First Tier; ☐ Lower Tier; ☐ Supplier; ☐ Service Contractor (e.g. Trucker)		
2. SUBCONTRACTOR NAME		
3. ADDRESS		
4. PORTION OF WORK (SCOPE): _____ ☐ Full (one subcontractor); ☐ Partial (multiple subcontractors)		
5. PHONE NO.	6. EMAIL	7. NOT USED
8. LICENSE NO.	9. SF BUSINESS TAX REG. NO.	10. AMOUNT OF SUB-CONTRACT WORK: $
11. CERTIFIED LBE? ☐ Yes; ☐ No	12. IF LBE, CHECK ALL THAT APPLY: ☐ MBE; ☐ WBE; ☐ OBE* ☐ SF-LBE; ☐ SFPUC-LBE ☐ Micro-LBE; ☐ Small-LBE; ☐ SBA-LBE	13. DIR REGISTRATION NO.

* MBE = Minority Business Enterprise, WBE = Women Business Enterprise, OBE = Other Business Enterprise.

Copy this page as needed to provide a complete listing. ***Page _____ of _____***

1. TYPE OF SUBCONTRACTOR: ☐ First Tier; ☐ Lower Tier; ☐ Supplier; ☐ Service Contractor (e.g. Trucker)		
2. SUBCONTRACTOR NAME		
3. ADDRESS		
4. PORTION OF WORK (SCOPE): _____ ☐ Full (one subcontractor); ☐ Partial (multiple subcontractors)		
5. PHONE NO.	6. EMAIL	7. NOT USED
8. LICENSE NO.	9. SF BUSINESS TAX REG. NO.	10. AMOUNT OF SUB-CONTRACT WORK: $
11. CERTIFIED LBE? ☐ Yes; ☐ No	12. IF LBE, CHECK ALL THAT APPLY: ☐ MBE; ☐ WBE; ☐ OBE* ☐ SF-LBE; ☐ SFPUC-LBE ☐ Micro-LBE; ☐ Small-LBE; ☐ SBA-LBE	13. DIR REGISTRATION NO.

* MBE = Minority Business Enterprise, WBE = Women Business Enterprise, OBE = Other Business Enterprise.

1. TYPE OF SUBCONTRACTOR: ☐ First Tier; ☐ Lower Tier; ☐ Supplier; ☐ Service Contractor (e.g. Trucker)		
2. SUBCONTRACTOR NAME		
3. ADDRESS		
4. PORTION OF WORK (SCOPE): _____ ☐ Full (one subcontractor); ☐ Partial (multiple subcontractors)		
5. PHONE NO.	6. EMAIL	7. NOT USED
8. LICENSE NO.	9. SF BUSINESS TAX REG. NO.	10. AMOUNT OF SUB-CONTRACT WORK: $
11. CERTIFIED LBE? ☐ Yes; ☐ No	12. IF LBE, CHECK ALL THAT APPLY: ☐ MBE; ☐ WBE; ☐ OBE* ☐ SF-LBE; ☐ SFPUC-LBE ☐ Micro-LBE; ☐ Small-LBE; ☐ SBA-LBE	13. DIR REGISTRATION NO.

* MBE = Minority Business Enterprise, WBE = Women Business Enterprise, OBE = Other Business Enterprise.

If this is the last page, complete the following:

TOTAL PERCENTAGE OF LBE SUBCONTRACTOR PARTICIPATION CLAIMED FOR WORK: MICRO AND SMALL-LBE: _____%

END OF SECTION

SECTION 00 43 37

PROPOSED SUBCONTRACTORS FORM FOR ALTERNATE WORK

Pursuant to Chapter 14B, compliance with the LBE Subcontracting Participation Requirement is determined on the amount of the Base Bid only (even if alternates are selected). LBEs that are listed on the Base Bid should be listed again on this form for each alternate on which they will be utilized.

Date _____ Name of Firm or Corporation _____

1. TYPE OF SUBCONTRACTOR: ☐ First Tier; ☐ Lower Tier; ☐ Supplier; ☐ Service Contractor (e.g. Trucker)		
2. SUBCONTRACTOR NAME		
3. ADDRESS		
4. PORTION OF WORK (SCOPE): _____ ☐ Full (one subcontractor); ☐ Partial (multiple subcontractors)		
5. PHONE NO.	6. EMAIL	7. NOT USED
8. LICENSE NO.	9. SF BUSINESS TAX REG. NO.	10. AMOUNT OF SUB-CONTRACT WORK: $
11. CERTIFIED LBE? ☐ Yes; ☐ No	12. IF LBE, CHECK ALL THAT APPLY: ☐ MBE; ☐ WBE; ☐ OBE* ☐ SF-LBE; ☐ SFPUC-LBE ☐ Micro-LBE; ☐ Small-LBE; ☐ SBA-LBE	13. DIR REGISTRATION NO.

* MBE = Minority Business Enterprise, WBE = Women Business Enterprise, OBE = Other Business Enterprise.

1. TYPE OF SUBCONTRACTOR: ☐ First Tier; ☐ Lower Tier; ☐ Supplier; ☐ Service Contractor (e.g. Trucker)		
2. SUBCONTRACTOR NAME		
3. ADDRESS		
4. PORTION OF WORK (SCOPE): _____ ☐ Full (one subcontractor); ☐ Partial (multiple subcontractors)		
5. PHONE NO.	6. EMAIL	7. NOT USED
8. LICENSE NO.	9. SF BUSINESS TAX REG. NO.	10. AMOUNT OF SUB-CONTRACT WORK: $
11. CERTIFIED LBE? ☐ Yes; ☐ No	12. IF LBE, CHECK ALL THAT APPLY: ☐ MBE; ☐ WBE; ☐ OBE* ☐ SF-LBE; ☐ SFPUC-LBE ☐ Micro-LBE; ☐ Small-LBE; ☐ SBA-LBE	13. DIR REGISTRATION NO.

* MBE = Minority Business Enterprise, WBE = Women Business Enterprise, OBE = Other Business Enterprise.

Copy this page as needed to provide a complete listing. ***Page _____ of _____***

1. TYPE OF SUBCONTRACTOR: ☐ First Tier; ☐ Lower Tier; ☐ Supplier; ☐ Service Contractor (e.g. Trucker)		
2. SUBCONTRACTOR NAME		
3. ADDRESS		
4. PORTION OF WORK (SCOPE): _____ ☐ Full (one subcontractor); ☐ Partial (multiple subcontractors)		
5. PHONE NO.	6. EMAIL	7. NOT USED
8. LICENSE NO.	9. SF BUSINESS TAX REG. NO.	10. AMOUNT OF SUB-CONTRACT WORK: $
11. CERTIFIED LBE? ☐ Yes; ☐ No	12. IF LBE, CHECK ALL THAT APPLY: ☐ MBE; ☐ WBE; ☐ OBE* ☐ SF-LBE; ☐ SFPUC-LBE ☐ Micro-LBE; ☐ Small-LBE; ☐ SBA-LBE	13. DIR REGISTRATION NO.

* MBE = Minority Business Enterprise, WBE = Women Business Enterprise, OBE = Other Business Enterprise.

1. TYPE OF SUBCONTRACTOR: ☐ First Tier; ☐ Lower Tier; ☐ Supplier; ☐ Service Contractor (e.g. Trucker)		
2. SUBCONTRACTOR NAME		
3. ADDRESS		
4. PORTION OF WORK (SCOPE): _____ ☐ Full (one subcontractor); ☐ Partial (multiple subcontractors)		
5. PHONE NO.	6. EMAIL	7. NOT USED
8. LICENSE NO.	9. SF BUSINESS TAX REG. NO.	10. AMOUNT OF SUB-CONTRACT WORK: $
11. CERTIFIED LBE? ☐ Yes; ☐ No	12. IF LBE, CHECK ALL THAT APPLY: ☐ MBE; ☐ WBE; ☐ OBE* ☐ SF-LBE; ☐ SFPUC-LBE ☐ Micro-LBE; ☐ Small-LBE; ☐ SBA-LBE	13. DIR REGISTRATION NO.

* MBE = Minority Business Enterprise, WBE = Women Business Enterprise, OBE = Other Business Enterprise.

[as in subcontractor form, insert location for subcontractors to include DIR registration number]

If this is the last page, complete the following:

TOTAL PERCENTAGE OF LBE PARTICIPATION CLAIMED FOR ALTERNATE WORK: _____%

END OF SECTION

SECTION 00 45 13

BIDDER'S QUALIFICATIONS

Refer to Section 00 21 13 (Instructions to Bidders – Bidder Qualifications) for instructions. Add additional sheets, as necessary, to demonstrate compliance with the requirements specified in Section 00 21 13.

1. BIDDER'S NAME:	
2. IS THIS A JOINT VENTURE? ☐ Yes, ☐ No; If "Yes," list name of each joint venture partner:	
3. FEDERAL ID NO.:	4. SF BUSINESS TAX REG. NO.:
5. NAME OF RESPONSIBLE MANAGEMENT OFFICER:	
6. DID BIDDER INSPECT THE PROJECT SITE? ☐ Yes, ☐ No; If "Yes," list name and phone of person who did the inspection:	
NAME:	PHONE NO:
7. NUMBER OF YEARS BIDDER'S ORGANIZATION HAS HAD EXPERIENCE IN WORK COMPARABLE WITH THAT REQUIRED UNDER THE PROPOSED CONTRACT:	_____ Years as a General Contractor _____ Years as a Subcontractor

8. RECENT WORK SIMILAR IN CHARACTER TO THAT REQUIRED IN THE PROPOSED CONTRACT, WHICH BIDDER HAS COMPLETED IN THE PAST 10 YEARS:

(a)

PROJECT DESCRIPTION:		
LOCATION: *Address, City, State*		
START DATE:	PLANNED COMPLETION DATE:	ACTUAL COMPLETION DATE:
CONTRACT AMOUNT: $	CHANGE ORDER AMOUNT: $	
ROLE *(Check One)*: ☐ General Contractor ☐ Subcontractor	IF GENERAL CONTRACTOR, LIST NAMES OF MAJOR SUBCONTRACTORS EMPLOYED:	
NAME OF OWNER'S REPRESENTATIVE:		
TITLE:	TELEPHONE:	
BUSINESS ADDRESS:		

(b)

PROJECT DESCRIPTION:		
LOCATION: *Address, City, State*		
START DATE:	PLANNED COMPLETION DATE:	ACTUAL COMPLETION DATE:
CONTRACT AMOUNT: $	CHANGE ORDER AMOUNT: $	
ROLE *(Check One)*: ☐ General Contractor ☐ Subcontractor	IF GENERAL CONTRACTOR, LIST NAMES OF MAJOR SUBCONTRACTORS EMPLOYED:	
NAME OF OWNER'S REPRESENTATIVE:		
TITLE:	TELEPHONE:	
BUSINESS ADDRESS:		

(c)

PROJECT DESCRIPTION:		
LOCATION: *Address, City, State*		
START DATE:	PLANNED COMPLETION DATE:	ACTUAL COMPLETION DATE:
CONTRACT AMOUNT: $	CHANGE ORDER AMOUNT: $	
ROLE *(Check One)*: ☐ General Contractor ☐ Subcontractor	IF GENERAL CONTRACTOR, LIST NAMES OF MAJOR SUBCONTRACTORS EMPLOYED:	
NAME OF OWNER'S REPRESENTATIVE:		
TITLE:	TELEPHONE:	
BUSINESS ADDRESS:		

(Add sheets if necessary.)

9. LIST ALL CONTRACTS DURING THE PAST 10 YEARS FOR WHICH THE BIDDER, OR A MEMBER OF THE BIDDER'S ORGANIZATION, RECEIVED AN UNSATISFACTORY PERFORMANCE RATING, WAS CITED AND FINEDFOR OSHA VIOLATIONS OR FAILED TO COMPLETE WORK.

(a)

PROJECT:	NAME OF OWNER:
LOCATION: *Address, City, State*	
EXPLAIN:	

(b)

PROJECT:	NAME OF OWNER:
LOCATION: *Address, City, State*	
EXPLAIN:	

(Add sheets if necessary.)

10. LIST MAJOR CONSTRUCTION EQUIPMENT, FACILITIES OR AIDS THAT BIDDER REPRESENTS IT POSSESSES OR CAN OBTAIN IN TIME TO PERFORM THE WORK; INDICATING WHETHER OWNED OR RENTED AND WHERE OBTAINED:

EQUIPMENT	OWNED	LEASED	RENTED	RENTAL AGENT NAME	TELEPHONE
(a)	☐	☐	☐		
(b)	☐	☐	☐		
(c)	☐	☐	☐		
(d)	☐	☐	☐		
(e)	☐	☐	☐		

11. BIDDER REFERS TO THE FOLLOWING BANK(S) AS TO FINANCIAL RESPONSIBILITY OF BIDDER:

(a)

NAME OF BANK:	
BUSINESS ADDRESS:	
CONTACT NAME:	TELEPHONE:

(b)

NAME OF BANK:	
BUSINESS ADDRESS:	
CONTACT NAME:	TELEPHONE:

(c)

NAME OF BANK:	
BUSINESS ADDRESS:	
CONTACT NAME:	TELEPHONE:

12. INSURANCE AND SURETY COMPANIES AND AGENTS WHO WILL PROVIDE THE REQUIRED INSURANCE AND BONDS ON THIS CONTRACT:

(a)

NAME OF COMPANY:	TYPE OF INSURANCE OR BOND:
BUSINESS ADDRESS:	
AGENT'S NAME:	TELEPHONE:

(b)

NAME OF COMPANY:	TYPE OF INSURANCE OR BOND:
BUSINESS ADDRESS:	
AGENT'S NAME:	TELEPHONE:

(Add sheets if necessary.)

BIDDER understands and agrees that, if awarded the Contract, Contractor and each of Contractor's Subcontractors must maintain a current business tax registration number. If the Tax Collector determines that Contractor or any of Contractor's Subcontractors do not have or maintain current business tax registration numbers, the City may either cancel the Contract or withhold any payments due under the Contract. Refer to Section 00 73 73.

END OF SECTION

SECTION 00 45 19

NON-COLLUSION AFFIDAVIT

TO THE San Francisco Public Utilities Commission, CITY AND COUNTY OF SAN FRANCISCO

In accordance with California Public Contract Code section 7106 the Bidder declares that the Bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the Bid is genuine and not collusive or sham; that the Bidder has not directly or indirectly induced or solicited any other Bidder to put in a false or sham Bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any Bidder or anyone else to put in a sham Bid, or that anyone shall refrain from Bidding; that the Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the Bid price of the Bidder or any other Bidder, or to fix any overhead, profit, or cost element of the Bid price, or of that of any other Bidder, or to secure any advantage against the public body awarding the Contract of anyone interested in the proposed Contract; that all statements contained in the Bid are true; and, further, that the Bidder has not, directly or indirectly, submitted his or her Bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham Bid.

Note: The above Non-Collusion Affidavit is part of the Bid. Signing the Bid Form (Section 00 41 00) shall also constitute signature of this Non-Collusion Affidavit. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

Bidder must submit this form with its Bid.

END OF SECTION

SECTION 00 45 57/PLA

Certification Form for the Water System Improvement Program Project Labor Agreement and Sewer System Improvement Program/Auxiliary Water Supply System Pumping Station 2 Extension Agreement Local Area Apprenticeship and Employment Opportunities Program

Submit completed and signed certification form with Bid, if applicable. The City may determine that Bidder's Bid is non-responsive if Bidder fails to submit this certification with its Bid.

I, _____ , by affixing my signature hereto, acknowledge that I have read Administrative Code Chapters 6.22(g), 82, and 83, as well as the Water System Improvement Program Project Labor Agreement (WSIP PLA) and Sewer System Improvement Program and Auxiliary Water Supply System Pumping Station 2 project Extension Agreement (Extension Agreement) (collectively "PLA"), and agree to participate in the PLA Local Area Apprenticeship and Employment Opportunities Program, which fosters construction and permanent employment opportunities for Qualified Economically Disadvantaged Individuals. I agree to abide by the terms and conditions of the Program, as described in the PLA and its supporting plans and documents, as they may be amended from time to time. I understand that upon meeting the conditions described herein, and those described in the PLA Local Area Apprenticeship and Employment Opportunities Program, the contractor has met the obligations required by the WSIP PLA and Extension Agreement. In order to meet the requirements, I agree to the following:

1) To submit a completed SECTION 00 45 58 INITIAL EMPLOYMENT PROJECTION as described below.
2) After execution of the contract and before commencement of work on the project, to meet with PLA Administrative Staff, and to require participating subcontractors to meet with PLA Administrative Staff, to provide a detailed estimate of the numbers of journeymen and apprentices in each trade to be employed by each contractor and participating subcontractor on the project.
3) After execution of the contract and before commencement of work, to agree with PLA Administrative Staff, and to require participating subcontractors to agree with PLA Administrative Staff, on a number of apprentices which Contractors and participating subcontractors will hire from referrals by participating Referral Agencies. This agreement will be documented in writing on SECTION 00 45 59.
4) To make a good faith effort, and to require participating subcontractors to make a good faith effort, to give Participating Referral Agencies the first opportunity to refer qualified applicants for consideration for apprenticeship openings until the number of apprentices agreed upon in 3) above are working on the project.
5) To make a good faith effort to hire individuals on the project from referrals by participating Referral Agencies and to facilitate the enrollment of such individuals in their respective union apprenticeship programs until the number of apprentices agreed to in 3) above are working on the project.
6) To update, and to require participating subcontractors to update, on an annual basis the estimated numbers of journeymen and apprentices to be employed in each trade on the project and the number of referrals from participating Referral Agencies to be employed on the project.

I understand that in accordance with the Project Labor Agreement Local Area Apprenticeship and Employment Opportunities Program, the final decision to hire and to retain individuals referred by participating Referral Agencies shall be made by Contractor or its Subcontractors. Such individuals will be employees of Contractor and its Subcontractors, not the SFPUC.

The City will review the contractor's activities to verify compliance with the above requirements. I agree to maintain accurate records demonstrating my compliance during the contract and to provide upon request all information deemed necessary by the City to verify contractor's compliance.

Bidder's Name	Bidder's Street Address
Name and Title of Signer	Bidder's City, State, ZIP
	Bidder's Telephone No.
Signature of Bidder or Authorized Representative	Date

END OF SECTION

SECTION 00 45 58

INITIAL EMPLOYMENT PROJECTION

Successful Bidder shall submit a completed Employment Projection and Plan for the Project which shall include:

1. *The TOTAL estimated number of Journey Level Positions and Entry Level/Apprentices Positions needed to perform the Work including whether the contractor intends to fill the position with a "core" employee as defined in the WSIP Project Labor Agreement, Article III; and*

2. *The approximate dates and duration of employment.*

Contractor	Prevailing Wage Classification	Journey or Apprentice (J/A)	Number of Positions	Est. Start Date (mo./day/yr.)	Duration	Core Employee? (Yes/No)

Signature

Print Name

Title

Telephone Number

Contractor Name

Date

END OF SECTION

SECTION 00 45 59

AGREEMENT TO HIRE APPRENTICES FROM PARTICIPATING REFERRAL AGENCIES

Section 00 45 59 will be submitted by the Contractor before commencing work on the project. Contractor agrees to make a good faith effort to hire and employ on the project the number of apprentices indicated below from candidates referred by Participating Referral Agencies. Participating referral agencies shall have forty eight (48) hours to refer a qualified candidate to the Contractor after receiving notice of the opening from the contractor. The decision to hire and retain any candidate or employee shall be made entirely by the Contractor.

Contractor	Prevailing Wage Classification	Number of Positions	Est. Start Date (mo./day/yr.)	Duration

Signature

Print Name

Title

Telephone Number

Contractor Name

Date

END OF SECTION

SECTION 00 45 60

HIGHEST PREVAILING WAGE RATE CERTIFICATION

Bidder, _____, by submitting the attached Bid Form, hereby acknowledges that Bidder has read San Francisco Charter section A7.204, Administrative Code section 6.22(e), and California Labor Code section 1770 et. seq., and that, if awarded the Contract, Bidder will comply with the requirement that any person performing labor or rendering service under a contract for public work or improvement shall be paid not less than the highest general prevailing rate of wages in private employment for similar work. Bidder is aware that failure to comply with such wage provision shall result in a forfeiture of back wages due plus the penalties as set forth in Labor Code section 1775, but not less than $50 per day per worker, and may result in disqualification as a contractor or subcontractor on any public work or improvement for the City and County of San Francisco for a period of up to five years. Bidder further attests, by submitting the attached Bid Form, that Bidder shall require from all its subcontractors that they acknowledge having read San Francisco Charter section A7.204, Administrative Code section 6.22(e), and California Labor Code section 1770 *et. seq*., and that they will comply with the same requirements under this Contract.

Note: The above Certification is part of the Bid. Signing the Bid Form (Section 00 41 00) shall also constitute signature of this Certification.

Bidder must submit this completed form with its Bid.

END OF SECTION

SECTION 00 45 70

CERTIFICATE OF BIDDER REGARDING
NONDISCRIMINATION IN CONTRACTS AND BENEFITS

Bidder, by submitting the attached Bid Form, hereby acknowledges that Bidder has read and will comply with Chapter 12B "Nondiscrimination in Contracts" of the Administrative Code and attests to the following *(please **check** the applicable box)*:

☐ **CERTIFIED**: The San Francisco Contract Monitoring Division ("CMD") has certified that Bidder is in compliance with Chapter 12B of the Administrative Code, and all applicable related requirements as specified in the Contract Documents, and the certification is in effect on the date of Bid opening.

☐ **CERTIFICATION PENDING**: Bidder has submitted an online 12B Declaration and all required documentation to the CMD seeking certification of compliance with Chapter 12B, and determination of compliance is pending review by the CMD. Bidder agrees to resolve all non-compliance through conciliation with CMD as a condition precedent to award of the Contract. If the CMD determines that Bidder is non-compliant, Bidder's Bid shall be deemed non-responsive.

☐ **NOT CERTIFIED:** Bidder acknowledges that full compliance with Chapter 12B of the Administrative Code is a condition precedent for award of the Contract and Bidder will submit an online 12B Declaration and all required documentation within 5 working days after the date of Bid opening. If the CMD determines that Bidder is non-compliant, Bidder's Bid shall be deemed non-responsive. Refer to Chapter 12B Equal Benefits Complete Compliance Guide available in the following internet link: https://sfgov.org/cmd/sites/default/files/Documents/12B%20Complete%20Compliance%20Guide%20Final%2021.08.10.pdf

Note: The text of Chapter 12B of the Administrative Code and Chapter 12B Equal Benefits Complete Compliance Guide are available from the CMD, 1155 Market Street, 4th Floor, San Francisco, CA 94103, telephone (415) 581-2310 and posted on the Web at https://sfgov.org/cmd/equal-benefits-compliance-12b-0. Compliance with the requirements of Chapter 12B is a condition precedent to receiving a contract. Non-compliant Bidders are advised to submit an online 12B Declaration and accompanying documentation to the CMD at the earliest possible opportunity to avoid delays in obtaining certification with these requirements; waiting to file during the 5 day period after Bid opening could cause delays.

Note: The above Certification is part of the Bid. Signing the Bid Form (Section 00 41 00) shall also constitute signature of this Certification.

Bidder must submit this completed form with its Bid.

END OF SECTION

SECTION 00 45 82

CERTIFICATION OF BIDDER REGARDING DEBARMENT AND SUSPENSION

I, _____ , by signing the attached Bid Form, under penalty of perjury, hereby certify, except as noted below, that the Bidder and/or its principals:

1. are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by a government agency;

2. have not within a 3-year period preceding this Bid entered a guilty plea, been convicted of, or had a civil judgment rendered against any of us for: (i) commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public or private agreement or transaction; (ii) violation of federal or state antitrust statutes, including those proscribing price fixing between competitors, allocation of customers between competitors, and bid rigging; (iii) commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, receiving stolen property, making false claims, or obstruction of justice; and/or (iv) commission of any other offense indicating a lack of business integrity or business honesty that seriously and directly affects the Bidder's present responsibility;

3. are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state or local) with commission of any of the offenses enumerated in item 2 above; and

4. have not within a 3-year period preceding this Bid had one or more public transactions (federal, state or local) terminated for cause or default.

Where the Bidder is unable to certify to any of the statements in this certification because it currently violates or has previously violated the above conditions 1 to 4, such prospective participant shall provide a description of each exception and attach an explanation to this Bid. The Bidder declares the following exceptions to the above representations: *(If there are exceptions to this Certification, insert the exceptions in the space provided below.)*

_____

_____

Exceptions will not necessarily result in denial of award of the Contract, but will be considered in determining Bidder responsibility. For each exception noted above, Bidder shall indicate below to whom it applies, name of the government entity and dates of action:

Exception	Person	Government Entity	Dates Inclusive

Note: The above Certification is part of the Bid. Signing the Bid Form (Section 00 41 00) shall also constitute signature of this Certification. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution or administrative sanctions

Bidder must submit this completed form with its Bid.

END OF SECTION

SECTION 00 45 85

BUSINESS TAX REGISTRATION DECLARATION

I understand that if I am awarded the Contract, each of my Subcontractors and I must maintain a current business tax registration number. If the Tax Collector of the City and County of San Francisco determines that any of my Subcontractors or I do not have or maintain a current business tax registration number, the City may either cancel the Contract or withhold payment.

_____
Bidder's Name

_____
Name and Title of Signer

_____
Bidder's Street Address

_____
Bidder's City, State, ZIP

_____
Bidder's Telephone No.

_____ _____
Signature of Bidder or Authorized Representative Date

END OF SECTION

Business Registration Certificate Requirement

Unless you have previously submitted this form, failure to complete the Declaration on the reverse and return this form to the Office of Contract Administration (OCA) with your bid will be a basis for rejection of the bid, and OCA will assume that your company does not intend to apply for a Business Registration Certificate.

General

To receive an award, a vendor must have a current Business Registration Certificate or else not be required to register. The registration fee is $25, $150, $250 or $500, depending on the type and size of your business. The fee (except the $25 fee) is pro-rated for new registrations, depending on when during the year you started your business in San Francisco, and is based on estimated tax liability for your payroll expense. To determine the registration fee due, you can check the website at **http://sfgov.org/tax/**. In addition, every business "conducting business in San Francisco" must file a combined Payroll Expense Tax Statement and Business Registration renewal on an annual basis. Businesses with a computed tax of $2,500 or less are exempt from paying payroll expense tax if the statement is filed on time.

Who must obtain a registration certificate?

Any business located, or conducting business, in San Francisco.

What is "conducting business in San Francisco"?

Briefly, it means engaging in business in San Francisco, having met one or more of questions 1-7 on the reverse specifically relate to "conducting business."

Are there exceptions?

Yes. A person receiving rental income solely from a cooperative housing corporation, or a residential structure of less than 4 units, or a residential condominium, shall not be deemed to be engaging in business.

My business is not located in San Francisco. Is a registration certificate still required?

Yes, if the business "conducts business in San Francisco"
All businesses, including those which do not "do business in San Francisco" but excluding government agencies, must sign and return the Declaration.

What's involved in obtaining a registration certificate?

Obtaining a certificate is easy, but not automatic. Once the Tax Collector receives an application, the office must check the payment status of other taxes (Unsecured Personal Property Tax, Payroll/ Business Tax) and licenses or permits. If any tax or license/permit fee is delinquent, the certificate cannot be issued. Only when all taxes and fees are paid in full will the certificate be issued.

Where do I obtain the certificate?

At the Tax Collector's Office. You would obtain an application form from, and submit it and the registration fee to:

Tax Collector's Office, Taxpayer Assistance
City Hall, Room 140
San Francisco, CA 94102-4696

Do Company Divisions, Parents and Subsidiaries have to register separately?

That depends on a company's individual situation. Contact the Tax Collector at (415) 554-6718 or 554-4400 for more information.

Can I do business with the City without a certificate?

Not if you "conduct business in San Francisco." The City can make purchases from businesses only in the following situations:

- The business conducts business in San Francisco and has registered.
- The business does not conduct business in San Francisco and has signed the Declaration.
- The business is non-profit and tax-exempt, has signed the Declaration and has submitted an IRS exemption letter.
- The business is a government agency, bank, insurance company, or other listed exemption.
- There is an emergency. Although OCA can award the contract, the vendor may be subject to business taxes and required to possess a certificate.

These requirements cover service contracts, construction contracts and product purchases.

What if my application is pending during a bid evaluation?

If you are the low Bidder on a City contract, and have applied for the certificate but your application has not yet been approved, the City may make the award to you if you sign the Declaration. If you have a receipt from the Tax Collector for the registration fee, submit a **copy** of the receipt with this form.

What if I currently "do not conduct business in San Francisco," but if I win this bid, I will register?

You may answer the questions based on your current status, and you should not register at this time. If you win the bid, you should register with the Tax Collector.

For more information

For information on how to apply for the certificate, call the Tax Collector's Office. For information on your eligibility to receive a particular award, call OCA. See the bottom of the reverse of this form.

Completing the Declaration; Failure to do so

Unless you previously submitted this form, complete the Declaration and, if possible, return it **with your bid or quotation** in the envelope provided. If you submit this form separately, see the mailing address under "Routing" near the bottom of the reverse of this form.

If you do not complete and return this form, that will be a basis for OCA's rejecting the bid, and for assuming that your company should register but will not and therefore that the City cannot do business with you.

If you submitted this form previously

If you submitted this form for an earlier transaction, and if your business tax status has not changed, please discard this form.

Please answer Yes or No to Questions 1-7, based on your company's situation *as of now*. If any answers would change if your company won a bid that is pending, you may submit a new form later.

Conducting Business in San Francisco

Yes No

This person, business, or person's or business's employee:

___ ___ 1. Maintains, owns or leases a fixed place of business within San Francisco.

___ ___ 2. Regularly maintains a stock of tangible personal property in San Francisco for sale in the ordinary course of business.

___ ___ 3. In the ordinary course of business, employs or loans capital on property within San Francisco.

___ ___ 4. Solicits business, performs work, or renders services within the City on a regular bases for all or part of any seven or more separate days during one year (e.g., 4 employees in San Francisco for 2 days each constitute 8 separate days, and require a "yes" answer to this question). If a manufacturer does not conduct business in San Francisco but the manufacturer's independent representative does, only the representative must register.

___ ___ 5. Exercise corporate or franchise powers within the City for the benefit of the person.

___ ___ 6. Liquidate a business when the liquidators hold themselves out to the public as conducting a liquidated business.

___ ___ 7. Utilize the streets within the City and County of San Francisco in connection with the operation of motor vehicles for business purposes for all or part of any seven days during one year.

If you answered "no" to all Questions 1-7, ordinarily you are not conducting business in San Francisco, need not register with the Tax Collector and may omit items 8-15 following, but you must sign and return this Declaration. However, this is subject to review by the Tax Collector. **If you answered "yes" to any of the questions**, you must answer the remaining questions in this Declaration and, unless an exemption applies, **must register**.

Tax-Exempt Businesses, Banks, Insurance Companies, Others

If you answer Yes to any of items 8-12, you still need to register but need not pay the registration fee. To register, you must submit proof of tax-exempt status to the Tax Collector, with other forms. Proof is usually an exemption letter from the IRS, noting §501(c) or (d) of the Internal Revenue Code. Also, submit this form and proof of tax-exempt status to the Office of Contract Administration (OCA).

Yes No

___ ___ 8. This business is non-profit, tax-exempt.

___ ___ 9. This business is a bank or an insurance company. (If Yes, indicate your type of business:_____)

___ ___ 10. This business owner is visually impaired as licensed under Ch. 6A, Title 12 USC and Art. 5, Ch. 6, Part 2, Div. 10 of the CA Welfare & Institutions Code.

___ ___ 11. This business is a skilled nursing facility licensed under Title 22, CA Admin. Code, Div. 5.

Applying for a Business Registration Certificate

If you answered "yes" to any of Questions 1-7, and "no" to Questions 8-11, check item 12, 13, or 14 and complete any applicable blanks. If no item is checked, or if the Declaration is not signed, this will constitute a basis for OCA to reject the bid.

___ ___ 12. This company has registered with the Tax Collector. Certificate # (6 digits, e.g., "123456").

___ ___ 13. This company applied for a Certificate by mailing the application and fee to the Tax Collector, or by submitting the application in person, on _____, 202____. The application is pending. (NOTE: Completing this Declaration is not the same as applying for a Certificate.) If you submitted the application in person, please submit with this Declaration a copy of the fee receipt you received from the Tax Collector.

___ ___ 14. This company does not intend to apply for a certificate, although we do "conduct business in San Francisco."

___ ___ 15. This company currently does not need to register (answered "NO" to questions 1-7) but if awarded a bid, questions # would be answered "YES" and this company will register.

I understand that my representation, if any, that I am not engaged in business in San Francisco is subject to review by the Tax Collector. If the Tax Collector determines that I am conducting business in San Francisco, the City may either cancel the contract or withhold payment ten days after written notification by the Tax Collector.

I declare (or certify) under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that I am authorized to bind this entity contractually.
Executed this _____ day of _____, 202_____, at _____, _____
(City) (State)

Name of Company (please print)

_____

_____
Signature

General Address
Mailing Address for General Corresp., Purchase Orders, etc
_____
_____
City, State, ZIP

Name of Signatory (please print)

_____

_____
Title

_____
Telephone Number

Remit Address
Remittance Address, if different
_____
_____
City, State, ZIP

_____
Federal ID or Social Security Number

Routing

If you are registering, obtain an application from the Tax Collector's website (**http://sfgov.org/tax/**). **Do not send this P-25 form to the Tax Collector.** We encourage you to send this form **with your bid or quotation** in the envelope provided. If you submit this form separately, send it to: Office of Contract Administration, Business Tax Compliance, City Hall, Room 430, San Francisco, CA 94102-4685. If you submitted this form previously and if your business tax status has not changed, discard this form.

For more information - Regarding how to apply for a certificate, call the Tax Collector at (415) 554-6718 or (415) 554-4400. Regarding a bid, call the OCA at (415) 554-6743.

SECTION 00 45 87

CERTIFICATE OF BIDDER REGARDING APPRENTICESHIP TRAINING PROGRAM

I, _____, by affixing my signature hereto, acknowledge that I have read Administrative Code section 6.22(n) and I make the following declaration regarding each apprenticeable trade for which I will provide labor to the Project: *(Please check the appropriate box(es) and complete the listing of trade(s) in the space provided below)*

☐ I am a signatory to a recognized apprenticeship or training program under chapter 4 of the California Labor Code as certified by the State of California Division of Apprenticeship Standards for the following apprenticeable trades for which I will provide labor on the Project, and I will provide written proof of my status as a signatory within 10 days after the date of the City's written notification of award of the Contract:
(List Trades Here) _____

☐ I have applied to become a signatory for the trades listed below but have not been accepted. Nevertheless, pursuant to Administrative Code section 6.22(n) and California Labor Code section 1777.5, I will pay into the appropriate apprenticeship fund(s) an amount equal to that paid by signatories. I acknowledge that I will be required to submit written evidence of such payments with all progress payment requests for payment for Work on the Project starting with the second such progress payment request and that providing such evidence is a condition that I must meet in order for to qualify for payment by the City.
(List Trades Here) _____

Additionally, I attest that I will require each of my subcontractors to submit in accordance with Section 00 64 00 a completed and signed Certificate of Subcontractor Regarding Apprenticeship Training Program form (Section 00 45 88). I acknowledge that, for subcontractor(s) who declare on said Section 00 45 88 that they have applied to become a signatory but have not been accepted and will pay into the appropriate apprenticeship fund(s) an amount equal to that paid by signatories, I must submit written evidence of such payments with all progress payment requests for payment for Work on the Project starting with the second such request and that providing such evidence is a condition I must meet in order to qualify for payment by the City.

I also attest that I and all of my subcontractors will comply, as a material term of the Contract, with the requirements of the State Apprenticeship Program as set forth in the California Labor Code, division 3, chapter 4 (commencing at section 3070) and section 1777.5 and Administrative Code section 6.22(n) and all requests by the City to provide proof that I and all subcontractors are in compliance with those requirements.
I declare (or certify) under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that I am authorized to bind this entity contractually.

If the Contract involves one or more trades with a recognized apprenticeship program for which you have declared that you are a signatory to a recognized apprenticeship or training program, written proof of status must be submitted for each trade within 5 working days after the date of the City's written notification of award of the Contract.

Bidder's Name	Name of Signer
Bidder's Street Address	Title of Signer
Bidder's City, State, ZIP	Signature of Bidder or Authorized Representative
Bidder's Telephone No.	Date

END OF SECTION

SECTION 00 45 88

CERTIFICATE OF SUBCONTRACTOR REGARDING APPRENTICESHIP TRAINING PROGRAM

I, _____, by affixing my signature hereto, acknowledge that I have read Administrative Code section 6.22(n) and I make the following declaration regarding each apprenticeable trade for which I will provide labor to the Project: *(Please check the appropriate box(es) and complete the listing of trade(s) in the space provided below)*

☐ I am a signatory to a recognized apprenticeship or training program under chapter 4 of the California Labor Code as certified by the State of California Division of Apprenticeship Standards for the following apprenticeable trades for which I will provide labor on the Project, and I will provide written proof of my status as a signatory within 10 days after the date of the City's written notification of award of the Contract:
(List Trades Here) _____

☐ I have applied to become a signatory for the trades listed below but have not been accepted. Nevertheless, pursuant to Administrative Code section 6.22(n) and California Labor Code section 1777.5, I will pay into the appropriate apprenticeship fund(s) an amount equal to that paid by signatories. I acknowledge that I will be required to submit written evidence of such payments for all progress payment requests for payment for Work on the Project submitted by the Bidder (General Contractor) to the City starting with the second such progress payment request. Further, I acknowledge that my providing such evidence for the Bidder (General Contractor) to submit to the City with its progress payment request(s) is a condition that I must meet in order for the Bidder (General Contractor) to qualify for payment by the City.
(List Trades Here) _____

I also attest that I will comply, as a material term of the Contract, with the requirements of the State Apprenticeship Program as set forth in the California Labor Code, division 3, chapter 4 (commencing at section 3070) and section 1777.5 and Administrative Code section 6.22(n) and all requests by the City to provide proof that I am in compliance with those requirements.

I declare (or certify) under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that I am authorized to bind this entity contractually.

Complete and deliver this declaration form as specified in Section 00 21 13– Instructions to Bidders to the SFPUC Contract Administration Bureau*,* 525 Golden Gate Avenue, 8th Floor*, San Francisco, CA* 94102*. If the subcontract involves one or more trades with a recognized apprenticeship program for which you have declared that you are a signatory to a recognized apprenticeship or training program, written proof of status must be submitted for each trade within 5 working days after the date of the City's written notification of award of the Contract.*

_____	_____
Bidder's Name	Name of Signer
_____	_____
Subcontractor's Name	Title of Signer
_____	_____
Subcontractor's Street Address	Signature of Subcontractor or Authorized Representative
_____	_____
Subcontractor's City, State, ZIP	Date
_____	
Subcontractor's Telephone No.	

END OF SECTION

CITY & COUNTY OF SAN FRANCISCO
CONTRACT MONITORING DIVISION

CMD ATTACHMENT 1

Requirements for Construction Contracts

For Contracts equal or greater than 50% of the Threshold Amount and that are Advertised on or after July 1, 2022

PART I. GENERAL

1.01 SAN FRANCISCO ADMINISTRATIVE CODE CHAPTERS 12B AND 14B

A. To be eligible for this contract award, Bidders must agree to comply with the Local Business Enterprise ("LBE") requirements sanctioned by San Francisco Administrative Code Chapter 12B, Section 12B.4, and Chapter 14B (where applicable), and its implementing Rules and Regulations. Chapters 12B and 14B are administered and monitored by the San Francisco Contract Monitoring Division ("CMD").

B. Chapters 12B and 14B and their implementing Rules and Regulations are incorporated by reference herein as though fully set forth and provide that the failure of any Bidder or Contractor to comply in good faith with these requirements shall be deemed a material breach of contract. Copies of both Chapters 12B and 14B and their implementing Rules and Regulations are available on the CMD website http://www.sfgov.org/cmd.

C. Chapter 14B allows for bid discounts for CMD certified firms, subject to certain limitations and exceptions. The Certification application is available on the CMD website at http://www.sfgov.org/cmd.

IMPORTANT NOTICE: In this CMD Attachment 1, the term "LBE" refers to only San Francisco ("SF") CMD Certified LBEs and NPEs and, therefore, does not include PUC LBEs.

For assistance with this CMD Attachment and/or assistance with the Equal Benefits Program, please contact the CMD Main Office at (415) 581-2310

1.02 SUBMISSION OF CMD FORMS – PRE-AWARD

A. Failure to complete or submit any of the forms may cause the Bidder to be deemed non-responsive and ineligible for contract award. For negotiated contracts: The schedule for the submission of forms will be established by the CMD in conjunction with the Contract Awarding Authority on a contract-by-contract basis. Please see Part III for more information regarding LBE sub participation.

1. **SECTION 00 43 36 or Equivalent Form**: In addition to meeting the requirements of the "Subletting and Subcontracting Fair Practices Act," Bidder shall list on Section 00 43 36 or equivalent City provided form **ALL** LBE subcontractors, suppliers, and service contractors (such as truckers), including their respective subcontract dollar amounts and portion of work to be performed, that it will utilize toward the Contract's LBE sub participation requirement(s). Failure to include this information may make it impossible for the City to determine whether or not Bidder has met the LBE sub participation requirement(s), and the Bid may be deemed non-responsive.

2. **SECTION 00 43 37 or Equivalent Form**: If applicable, for alternate bid items/work, Bidder must complete and submit Section 00 43 37 or equivalent City provided form with its Bid. Compliance with the LBE sub participation requirement(s) is determined on the amount of the base bid. LBEs that are listed on the base bid should be listed again on Section 00 43 37 or equivalent City provided form for each alternate on which they will be utilized. Bidders entering "To Be Determined" ("TBD") instead of a specific dollar amount/percentage on Section 00 43 36 or Section 00 43 37 or equivalent City provided form may lead to a non-responsive Bid.

3. LBE Bidders and LBE subcontractors must be certified as LBEs on the bid due date to qualify for the bid discount or to qualify to meet the LBE sub participation requirement(s).

4. The bid specifications will state which LBE size category (e.g., Micro, Small, and/or SBA-LBE) can be used to meet the LBE sub participation requirement(s).

5 Any Bidder or subcontractor who is in the process of appealing the Director's denial of certification or revocation of certification shall not be considered an LBE.

B. Submit the following CMD forms with the Bid:

FORM 2B: CMD "Good Faith Efforts" Requirements Form: This form must be submitted for every solicitation that requires LBE sub participation. Bidder shall meet the specified LBE sub participation requirement(s) and shall complete and submit Form 2B in accordance with Form 2B instructions. Failure to meet the LBE sub participation requirement(s) AND demonstrate/document adequate good faith efforts shall cause the Bid to be determined non-responsive and rejected. Please see Part IV for further information. Bidders are required to sign this form under penalty of perjury.

C. The apparent low Bidder must submit the following documentation and forms by 5:00 p.m. on the fifth business day following Bid opening. No extensions of time to submit the documentation are permitted unless approved by CMD. If the CMD determines that the Bidder is not acting in good faith in the timely and accurate submission of these forms, the Bid may be determined non- responsive and rejected.

1. **FORM 3: CMD Compliance Affidavit**: Must be signed by the Bidder under penalty of perjury.

2. **FORM 6: CMD LBE Subcontractor Participation Affidavit**: Completed copies of Form 6 and subcontractors' bid quotations must be submitted from all LBE subcontractors, suppliers and truckers listed to meet the LBE sub participation requirement(s), regardless of whether the participation is as a first-tier, or lower-tier subcontractor, supplier or trucker. Subcontractors are required to sign this form under penalty of perjury.

3. **FORM 6A: CMD LBE Trucking Form**: Bidder shall submit Form 6A if truckers are being used to meet the LBE sub participation requirement(s). Only CMD certified LBE truckers can be utilized to meet the LBE sub participation requirement(s).

1.03 CMD LBE CONTRACT PERFORMANCE FORMS—POST AWARD

A. **LBE Utilization Tracking**

1. **FORM 7: CMD Progress Payment Form**: The Bidder awarded the Contract shall submit online using the Contract Awarding Authority's City approved system with each payment request. Failure to upload this information with each payment request may delay progress payment processing. Upon request from CMD, the Contractor must provide copies of certified payrolls for itself and all subcontractors. For any Other Direct Costs ("ODC") or direct reimbursable expenses/items, CMD will review and determine whether it is eligible for LBE sub participation credit.

2. **FORM 9: CMD Payment Affidavit**: Following receipt of each progress payment from the Contract Awarding Authority, a Form 9 (or the information on Form 9) must be submitted online using the Contract Awarding Authority's City approved system with the next progress payment request. Subcontractors are then required to acknowledge payment from Contractor online using the Contract Awarding Authority's City approved system. Failure to submit required information may lead to partial withholding of progress payment, <u>even if there are no subcontractor payments for the reporting period.</u>

B. **FORM 8: CMD Exit Report and Affidavit**: Submit with final Form 7. A separate Form 8 must be completed for each LBE subcontractor and supplier (including lower-tier subcontractors & suppliers).

C. **FORM 10: CMD Contract Modification Form**: This form shall be completed by the Prime Contractor when any (all) amendments, modifications, or supplemental change orders cumulatively increase the original contract amount by more than 20%, and then for all subsequent amendments, modifications or change orders that cumulatively increase the last CMD approved value by 20%.

D. Failure to submit all required information under Section 1.03 as specified by the City may result in sanctions under Chapter 14B, including but not limited to, withholding of progress and final payments.

PART II. BID DISCOUNT

2.01 APPLICATION

A. Eligibility for the LBE bid discount: CMD certified Micro, Small, and SBA-LBEs, including certified non-profit organizations, are eligible for an LBE bid discount (as applicable under Section 14B.7 of the Ordinance) if the LBE is CMD certified in the type of work that is specified for the Bidder by the Contract Awarding Authority. A Bidder that has a certification application pending, that has been denied certification, that has had its certification revoked or that is in the process of appealing a CMD denial or revocation at the date and time the Bid is due IS NOT an LBE and IS NOT eligible to receive the bid discount even if the firm is later certified or ultimately prevails in its appeal. Contract Awarding Authorities shall apply these bid discounts to each evaluation stage of the selection process, as applicable.

The Discounts provided under Section 2.01(B) through (E) can be combined with each other. A Bidder may receive up to a maximum bid discount of 13% depending on the particular application listed below. A Bidder may only claim one bid discount under each of the following subsections:

- Section 2.01(B) **Standard bid discount**
- Section 2.01(D) **<u>Prime Neighborhood/Zip Code LBE bid discount</u>**
- Section 2.01(E) **<u>Subcontracting Neighborhood/Zip Code LBE bid discount</u>**

Note 1: The bid specifications and contract documents will clearly state whether the Pilot Neighborhood/Zip Code LBE Program is applicable to the specific project.

Note 2: The Mentor Protégé bid discount/rating bonus, Section 2.01(F), cannot be combined with any of the bid discounts/rating bonuses from Sections 2.01(B) through (E).

B. Application of the **Standard bid discount** shall be as follows:

1. **Contracts with an Estimated Cost in Excess of $10,000 and Less Than or Equal to $400,000**. A 10% bid discount will apply to any Bids submitted by CMD certified Small or Micro-LBEs. SBA-LBEs are not eligible for a bid discount OR
2. **Contracts with an Estimated Cost in Excess of $400,000 and Less Than or Equal to $10,000,000**. A 10% bid discount will apply to any Bids submitted by CMD certified Small or Micro-LBEs. If, after the application of the 10% bid discount to Bids submitted by Small or Micro-LBEs, the apparent low Bidder is not a Small or Micro-LBE, a 5% bid discount will be applied to any Bid from an SBA-LBE in accordance with the procedures and limitations set forth in Section 14B.7(E) of the Ordinance OR
3. **Contracts with an Estimated Cost in Excess of $10,000,000 and Less Than or Equal to $20,000,000**. Only the 2% bid discount will apply to any Bid submitted by a Small LBE, Micro LBE and SBA-LBE OR
4. **Contracts with an Estimated Cost in Excess of $20,000,000**. The bid discount for LBEs does not apply to Contracts estimated by the Contract Awarding Authority to exceed $20,000,000.
5. Bid discounts are not applicable to Contracts awarded by private non-profit agencies, regardless of whether or not government funding is involved, or whether or not the firms competing for Contracts are for-profit businesses.

C. **Pilot Neighborhood/Zip Code LBE Program**

This pilot program is a hyper-local preference program that is to encourage participation by neighborhood businesses on City public works projects located in their neighborhood. This program may apply to Administrative Code Chapter 6 Contracts for projects located within the jurisdictional boundary of San Francisco estimated to cost in excess $10,000 and less than or equal to $10,000,000. The bid specifications and contract documents will clearly state whether the Pilot Neighborhood/Zip Code LBE Program is applicable to the specific project. The Pilot Neighborhood/Zip Code LBE Program bid discount does not apply for Contracts estimated by the Contract Awarding Authority to exceed $10,000,000. The program shall not apply to Job Order Contracts (JOC), As-Needed Contracts, or other Contracts where no specific project location is specified at the time of bid.

The program preferences shall be available to LBEs who meet one or both of the following criteria:

1. Neighborhood LBE. A "Neighborhood LBE" means a CMD certified Small or Micro-LBE whose principal place of business is located in the same Neighborhood as the Neighborhood in which the project is located, where "Neighborhood" is defined as any one of the 11 Supervisorial Districts as defined and established in the San Francisco Charter, Appendix E at the time of bid. In order to facilitate this, the Contract Awarding Authority is required to identify the specific address/Neighborhood(s) where the project will be located on all bid specifications and contract documents.
2. Project Zip Code LBE. A "Project Zip Code LBE" means a CMD certified Small or Micro-LBE whose principal place of business is located in the same zip code as the zip code in which the project is located; In order to facilitate this, the Contract Awarding Authority is required to identify the specific address/Neighborhood(s) where the project will be located on all bid specifications and contract documents.

D. Application of the **Prime Neighborhood/Zip Code LBE bid discount**:

1. A 1% bid discount to Bids from a Neighborhood LBE when bidding on a Contract where the project is located in the same Neighborhood as the Neighborhood LBE's principal place of business OR
2. A 1.5% bid discount to Bids from a Project Zip Code LBE when bidding on a Contract where the project is located in the same zip code as the Project Zip Code LBE's principal place of business.

E. Application of the **Subcontracting Neighborhood/Zip Code LBE bid discount**:

1. A 0.5% bid discount to Bids from any Bidder if the LBE sub participation in the submitted Bid includes participation by Neighborhood LBEs of at least 50% of the sum of all the LBE sub participation requirements OR
2. A 1.5% bid discount to Bids from any Bidder if the LBE sub participation in the submitted Bid includes participation by Zip Code LBEs of at least 50% of the sum of all the LBE sub participation requirements.

F. Application of the **Mentor Protégé bid discount**:

A 1% bid discount to Bids from any Bidder who has been deemed by CMD to qualify for the bid discount. The discount shall not exceed $300,000 and will not be applied if it results in an LBE losing status as the apparent low Bidder or highest ranked Proposer.

PART III. LBE SUBCONTRACTOR/SUBCONSULTANT PARTICIPATION

3.01 LBE SUBPARTICIPATION REQUIREMENT(S)

A. **General**

All Bidders must meet the LBE sub participation requirement(s) and undertake adequate good faith efforts as set forth in Section 14B.8 of the Ordinance to select subs to meet the LBE sub participation requirement(s). The bid specifications will state which LBE size category (e.g., Micro, Small, and/or SBA-LBE) can be used to meet the LBE sub participation requirement(s). If awarded the Contract, a Bidder's failure to achieve their respective LBE sub participation requirement(s) shall subject the Bidder to sanctions as described in Section 14B.17 of the Ordinance. For a directory of certified LBEs, please go to: http://www.sfgov.org/cmd.

Bids that do not meet the LBE sub participation requirement(s) set under Section 14B.8(A) of the Ordinance will be rejected as non-responsive pursuant to Chapter 14B and its accompanying Rules and Regulations.

1. Bidders must identify on **Section 00 43 36** (Subcontractor List) or equivalent City provided form the particular LBE subcontractors to be used in performing the contract work, including first and lower tier subcontractors, suppliers, or service contractors such as truckers, and specify for each the dollar amount of each subcontract and the portion of work to be performed. An LBE subcontractor must be CMD certified in the scope of work/trade(s) that the Bidder is listing the LBE subcontractor to perform in order to receive LBE credit.
2. A Bidder must contact an LBE before listing that LBE as a sub in the Bid. A Bid that fails to comply with this requirement will not receive LBE credit for the referenced LBE. LBEs must be certified with the CMD on the bid due date to receive LBE credit. Additionally, a sub(s) may be listed by more than one Bidder.
3. <u>Bidders are responsible for verifying the LBE status of a subcontractor, supplier, or service contractor prior to submitting a Bid</u>. A subcontractor that has a certification application pending, that has been denied certification, that has had its certification revoked or that is in the process of appealing a CMD denial or revocation at the date and time the Bid is due is not an LBE and cannot

be counted as an LBE for purposes of meeting the LBE sub participation requirement(s) even if the firm is later certified or ultimately prevails in its appeal.

4. CMD may require the successful Bidder to submit performance reports (e.g., Form 7, etc.) on actual LBE participation at 30%, 50%, 70%, and 90% completion to the Contracting Awarding Authority and CMD.

B. **Determination and Calculation of LBE Subcontractor/Subconsultant Participation**

General Rules and Commercially Useful Function

1. All LBE Bidders must meet the LBE sub participation requirement(s). Any LBE Bidder (including SBA-LBE Bidder) may not count its participation towards meeting the LBE sub participation requirement(s). If a Bidder owns or controls more than one business that is CMD certified as an LBE, the Bidder will not receive LBE credit if it lists its other firm(s) to meet the LBE sub participation requirement(s) when submitting as a Bidder. In determining ownership of a business, a business owned by Bidder's spouse or domestic partner shall be deemed to be owned by the Bidder.

2. For a Bidder to receive credit toward the LBE sub participation requirement(s), a listed LBE subcontractor must be CMD certified in the scopes of work/trade(s) listed on Section 00 43 36 or equivalent City provided form. The LBE subcontractor shall be listed to perform scope(s) of work, which is described in the bid specifications.

   a. The LBE subcontractor must be utilized on the Contract to perform a Commercially Useful Function. An LBE subcontractor performs a Commercially Useful Function if it is directly responsible for providing the materials, equipment, supplies, or services to the project as required by the bid and contract documents. To perform a Commercially Useful Function, an LBE subcontractor must be solely responsible for execution of a distinct element of the contract work, and must actually perform, manage and supervise the work involved in accordance with normal industry practice. For example, for any subcontract involving LBE subcontractors providing construction laborers, the LBE subcontractor must be responsible for the labor and supervision for its listed scope of work at the time of bid, if applicable. CMD reserves the right to request and review such information during the course of the contract and, upon request, the Bidder shall submit the requested information to CMD within 10 days.

   b. To determine whether an LBE subcontractor is performing a Commercially Useful Function, the CMD will evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the Contract is commensurate with the work it is actually performing and the LBE credit claimed for its performance of the work, and other relevant factors. What constitutes a Commercially Useful Function will vary depending on the type of LBE subcontractor (e.g., construction subcontractor, manufacturer, supplier, broker, or trucker).

   c. An LBE subcontractor does not perform a Commercially Useful Function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of LBE participation. In determining whether an LBE is such an extra participant, the CMD will examine similar transactions and determine whether or not non-LBEs would normally participate in such transactions. No credit will be given for an LBE that services as a pass-through.

3. Only the dollar amount of work to be performed by the LBE subcontractor will be credited toward meeting the LBE sub participation requirement(s).

   - *Example*: Bidder lists an LBE subcontractor for $1,000,000, but the LBE subcontractor will perform $510,000 of that amount. The remaining $490,000 will be further subcontracted out to

a lower-tier non-LBE subcontractor. Only $510,000 will be credited toward the LBE sub participation requirement(s).

4. All work performed by lower-tier LBE subcontractors will be credited toward meeting the LBE sub participation requirement(s) provided that the lower-tier subcontractor was listed on **Section 00 43 36** or equivalent City provided form (or **Section 00 43 37** or equivalent City provided form, if applicable) at the time of bid.
   - *Example:* A non-LBE subcontractor is listed for $1,000,000 and will perform $800,000 of that amount. The remaining $200,000 will be further subcontracted out to a lower-tier LBE subcontractor. Only $200,000 will be credited toward the LBE sub participation requirement(s), provided that the lower-tier LBE subcontractor was listed on Section 00 43 36 or equivalent City provided form at the time of bid.

<u>Deletable Bid Items, Allowances, Contingency/Conditional & Alternate Bid Items</u>

5. The CMD will calculate compliance with the LBE sub participation requirement(s) based on the total amount of a Bidder's base bid (including non-deletable bid items, deletable bid items, allowances, and all other items that contribute to the base bid amount). In addition, a Bidder must demonstrate good faith efforts to meet the LBE sub participation requirement(s) through LBE participation on the base bid. If a Bidder lists an LBE subcontractor on Section 00 43 36 or equivalent City provided form and intends to use that LBE subcontractor for alternate work, the Bidder must separately list the LBE subcontractor on Section 00 43 37 or equivalent City provided form for each alternate on which the subcontractor will be used.
6. For purposes of determining compliance at the time of bid, a Bidder shall not use deletable bid items, allowances or contingency/conditional bid items to meet the LBE sub participation requirement(s).

<u>LBE Construction Subcontractors</u>

7. Bidders may receive 100% credit for CMD certified LBE construction subcontractors that perform a Commercially Useful Function by supplying labor, materials and supplies for a discrete portion of the contract work performed in accordance with normal industry practice. To receive credit towards the LBE sub participation requirement(s) with respect to materials and supplies used for the contract work, the material and supplies must be of the type normally provided by the construction subcontractor in accordance with industry practice. In addition, with respect to materials and supplies, the LBE construction subcontractor must be responsible for negotiating price, determining quality and quantity, ordering the materials and supplies, selecting a supplier or dealer from those available, installing the materials, and paying for the materials and supplies. To receive LBE sub participation credit, the Bidder must list the LBE construction subcontractor on Section 00 43 36 or equivalent City provided form (and Section 00 43 37 or equivalent City provided form, if applicable).
8. Bidders may receive 100% credit for LBE construction subcontractors that perform a Commercially Useful Function by supplying labor only for a discrete portion of the contract work in accordance with normal industry practice. To receive LBE sub participation credit, the Bidder must list the LBE construction subcontractor on Section 00 43 36 or equivalent City provided form (and Section 00 43 37 or equivalent City provided form, if applicable).

<u>LBE Manufacturers</u>

9. If a Bidder obtains materials, supplies, articles or equipment directly from an LBE manufacturer certified by the CMD as a manufacturer of such items, 100% of the cost of the items will count toward the LBE sub participation requirement(s), regardless of who installs such items. An LBE manufacturer is a firm that performs a Commercially Useful Function by operating or maintaining a factory or establishment that produces on the premises, the materials, supplies, articles or equipment required under the Contract and of the general character described by the

specifications. To receive LBE sub participation credit, the Bidder must list the LBE manufacturer on Section 00 43 36 or equivalent City provided form (and Section 00 43 37 or equivalent City provided form, if applicable).

LBE Suppliers

10. If a Bidder obtains materials, supplies, articles or equipment from an LBE supplier certified by CMD to supply such items, 60% of the cost of the items will count toward the LBE sub participation requirement(s) if the LBE supplier performs a Commercially Useful Function by taking possession of the items and assuming the risk of their delivery. An LBE supplier is a firm with the financial and physical capability to purchase, to stock, and to distribute or sell the materials, supplies, articles or equipment of the general character described by the specifications and required under the Contract consistent with relevant industry practice in the usual course of business. No LBE sub participation credit beyond 60% of the cost of materials, supplies, articles or equipment will be credited for any claimed services provided by the LBE supplier. To receive LBE sub participation credit, the Bidder must list the LBE supplier on Section 00 43 36 or equivalent City provided form (and Section 00 43 37 or equivalent City provided form, if applicable).

11. If a Bidder obtains materials, supplies, articles or equipment from an LBE supplier certified by CMD to supply such items, and the supplier performs a Commercially Useful Function by purchasing and selling the items, but does not take possession of the items and assume the risk of their delivery, then the LBE supplier is serving as a broker or agent, and only 5% of the cost of the materials or supplies will count toward the LBE sub participation requirement(s). No LBE sub participation credit beyond 5% of the cost of materials or supplies will be credited for any claimed services (including, but not limited to, costs of insurance, warehousing or general maintenance) provided by the LBE supplier/broker. To receive LBE sub participation credit, the Bidder must list the LBE supplier/broker on Section 00 43 36 or equivalent City provided form (and Section 00 43 37 or equivalent City provided form, if applicable).

12. For CMD certified LBE equipment rental firms, 60% of the equipment rental fee (current market rate) of equipment owned by the LBE equipment rental firm will be credited towards the LBE sub participation requirement(s). To receive LBE sub participation credit, the Bidder must list the LBE equipment rental firm on Section 00 43 36 or equivalent City provided form (and Section 00 43 37 or equivalent City provided form, if applicable).

Specially Manufactured Items

13. The Instructions to Bidders or the Technical Specifications may list material, articles, equipment or other manufactured items that the City has designated as Specially Manufactured Items for the purposes of the LBE sub participation requirement(s). A Specially Manufactured Item is an item that is either typically purchased by the Prime Contractor directly from the manufacturer or not supplied by suppliers or construction subcontractors in the usual course of business.

14. If the bid specifications or contract documents expressly identify one or more Specially Manufactured Items, CMD will calculate LBE sub participation credit for such items according to the following rules:

    a. If a Specially Manufactured Item is manufactured by and purchased from a CMD- certified LBE manufacturer, 100% of the purchase order amount will be credited towards meeting the LBE sub participation requirement(s), regardless of who installs the item. To receive LBE sub participation credit, the Bidder must list the LBE manufacturer on Section 00 43 36 or equivalent City provided form (and Section 00 43 37 or equivalent City provided form, if applicable).

    b. If a Specially Manufactured Item is purchased from a CMD certified LBE supplier, only 5% of the purchase price of the item will be credited towards meeting the LBE sub participation

requirement(s). No LBE sub participation credit beyond 5% of the purchase price will be credited for any claimed services (including, but not limited to, costs of insurance, warehousing, and general maintenance) provided by the LBE supplier. To receive LBE sub participation credit, the Bidder must list the LBE supplier on Section 00 43 36 or equivalent City provided form (and Section 00 43 37 or equivalent City provided form, if applicable).

c. If a Specially Manufactured Item is supplied and installed by a CMD certified LBE construction subcontractor, 5% of the purchase price of the item and 100% of the installation labor cost will be credited towards meeting the LBE sub participation requirement(s), provided that installation by the construction subcontractor reflects normal industry practice. To receive LBE sub participation credit, the Bidder must list the LBE construction subcontractor on Section 00 43 36 or equivalent City provided form (and Section 00 43 37 or equivalent City provided form, if applicable).

d. A Bidder may receive full (100%) LBE sub participation credit for any labor associated with the installation of a Specially Manufactured Item (regardless of the source of supply), provided the installation is performed by a CMD certified construction subcontractor in accordance with normal industry practice. To receive LBE sub participation credit, the Bidder must list the LBE construction subcontractor on Section 00 43 36 or equivalent City provided form (and Section 00 43 37 or equivalent City provided form, if applicable).

<u>LBE Truckers</u>

15. CMD will count 100% credit toward the LBE sub participation requirement(s) when an LBE-owned trailer is pulled by an LBE-owned cab and the driver of the cab is an employee/ owner of the LBE trucking firm that owns the cab. CMD will count 60% credit toward the LBE sub participation requirement(s) when an LBE-owned trailer is pulled by a non- LBE owned cab. CMD will count 0% credit toward the LBE sub participation requirement(s) when a non-LBE owned trailer is pulled by a non-LBE owned cab. To receive LBE sub participation credit, the Bidder must list the LBE trucking firm on Section 00 43 36 or equivalent City provided form (and Section 00 43 37 or equivalent City provided form, if applicable).

16. In order to receive LBE sub participation credit for Trucking and Hauling, the LBE must own the cab or trailer at the time of bid and be certified under the category "Trucking and Hauling" with the CMD's Certification Unit. The following items fall under the "Trucking and Hauling" category: cabs and trailers. Prior to the bid due date, the LBE must have provided ownership information and all necessary permits and registration for the Trucking and Hauling items that will be utilized for the project to CMD's Certification Unit which will verify and add this information to the certification file. During the course of the Contract the CMD Director may authorize LBE sub participation credit for vehicles or equipment purchased or leased after the time of bid on a case by case basis.

<u>Construction Equipment</u>

17. Construction Equipment firms are firms that sell and/or rent construction equipment. For example, items such as storage tanks, grit separators, debris boxes, etc. are considered Construction Equipment and not under the "Trucking and Hauling" Category. If these items are utilized in conjunction with trucking and hauling operations, they are still classified in the Construction Equipment Category. In order to receive LBE sub participation credit for these types of items, the LBE must be certified under the category of "Construction Equipment" with the CMD's Certification Unit at the time of bid.

    Note: LBE firms in the "Construction Equipment" category are equipment sales and rental firms. For CMD certified LBE equipment rental firms, only 60% of the equipment rental fee (current market rate) will be credited towards the LBE sub participation requirement(s).

3.02 SUBSTITUTION, REMOVAL, OR CONTRACT MODIFICATION OF LBE

No LBE subcontractor, supplier, trucker or vendor listed on Section 00 43 36 or equivalent City provided form (or Section 00 43 37 or equivalent City provided form) shall be substituted, removed from the Contract or have its Contract, purchase order or other form of agreement modified in any way without prior CMD approval. Contractor must conduct good faith efforts to replace an LBE subcontractor with another LBE subcontractor to comply with the LBE sub participation requirement(s). Additionally, no new subcontractors shall be added without prior CMD approval.

PART IV "GOOD FAITH OUTREACH" REQUIREMENTS

All Bidders shall undertake adequate good faith outreach as set forth in Section 14B.8 of the Ordinance.

Under Section 14B.8(C) of the Ordinance, proposals that do not meet the LBE sub participation requirement(s) will be rejected as non-responsive pursuant to Chapter 14B and its accompanying Rules and Regulations.

Bidders must perform at least one of the three good faith efforts approaches outlined on Form 2B (35% Approach, Inclusion of Micro-LBE Approach and/or the Good Faith Negotiation(s) Approach). Note: A Bidder may be waived from the good faith efforts if it has been deemed by CMD to have met the requirements in the Mentor Protégé Program. A Bidder shall provide the CMD proof of eligibility.

The instructions for the Inclusion of Micro-LBE Approach and the Good Faith Negotiation(s) Approach are clearly outlined on Form 2B. Bidder must submit all good faith documentation as specified on Form 2B. For the 35% Approach listed above, if a Bidder demonstrates in its Bid that it exceeds the sum of all the established LBE sub participation requirement(s) by 35% or more, such Bidder is not required to conduct the other good faith efforts approaches.

Example: The sum of all the LBE sub participation requirement(s) is 10%. Good faith efforts requirements will be met if the Bidder:

1) Meets the LBE sub participation requirement(s);

AND

2) Has a total LBE participation that equals or exceeds 13.5% of the bid amount. The 13.5% represents the 10% LBE sub participation requirement plus 35% of that 10% sub participation requirement.

The sum of all LBE sub participation requirement(s) set for	10.0%
35% of the 10% LBE sub participation requirement(s):	3.5%
Total LBE participation must equal or exceed:	**13.5%**

A Small or Micro-LBE Bidder/Proposer may count its own contract work toward the 35% good faith outreach exception portion, but may not count its own contract work toward the LBE sub participation requirement portion. An SBA-LBE Bidder/Proposer may not count its own contract work towards the LBE sub participation requirement portion or the 35% good faith outreach exception portion. SBA-LBE subs may count towards the 35% good faith outreach exception portion if the Director permitted Bidders/Proposers to list SBA-LBE firms to satisfy the LBE sub participation requirement.

PART V NONCOMPLIANCE AND SANCTIONS

A. Non-Compliance with Chapter 14B

1. A complaint of non-compliance concerning LBE participation initiated by any party after contract award will be processed in accordance with Chapter 14B and its implementing Rules and Regulations.

   a. If the CMD Director determines that there is cause to believe that a Contractor has failed to comply with any of the requirements of Chapter 14B, CMD Rules and Regulations, or contract provisions pertaining to LBE participation, the CMD Director shall notify the Contract Awarding Authority and attempt to resolve the non-compliance through conference and conciliation.

   b. If the non-compliance is not resolved through conference and conciliation, the CMD Director shall conduct an investigation and, where the Director so finds, issue a written Finding of Non-Compliance.

   c. The Director's finding shall indicate whether the Contractor acted in good faith or whether noncompliance was based on bad faith noncompliance with the requirements of Chapter 14B, CMD Rules and Regulations, or contract provisions pertaining to LBE participation.

2. Where the Director finds that the Contractor acted in good faith, after affording the Contractor notice and an opportunity to be heard, the Director shall recommend that the Contract Awarding Authority take appropriate action. Where the Director finds bad faith noncompliance, the Director shall impose sanctions for each violation of the Ordinance, CMD Rules and Regulations, or contract provisions pertaining to LBE participation, which may include:

   a. Issuing an Order of Debarment prohibiting the Contractor and affiliates from participating in City Contracting for a period not to exceed five years and terminating any existing Contracts or Subcontracts with the debarred Contractor, in accordance with the Administrative Debarment provisions and procedures set forth in Administrative Code Chapter 28.

   b. Determining that the Contractor has failed to comply with the provisions of Chapter 14B, sanctions are as follows:

      i) suspend a Contract;
      ii) withhold funds;
      iii) assess penalties;
      iv) debarment;
      v) revoke CMD certification; or
      vi) pursuant to 14B.7(H)(2) of the Ordinance, assess liquidated damages in an amount up to 25% of the total amount of the Contract or subcontract, as applicable, or $1,000, whichever is greatest as determined by CMD.

3. The Director's determination of non-compliance is subject to appeal to the City Administrator pursuant to CMD Rules and Regulations.

4. An appeal by a Contractor to the City Administrator shall not stay the Director's findings.

5. The CMD Director may require such reports, information and documentation from contractors, subcontractors, Contract Awarding Authorities, and heads of departments, divisions, and offices of the City and County as are reasonably necessary to determine compliance with the requirements of Chapter 14B.

B. **Procedure for the collection of penalties is as follows:**

1. The CMD Director shall send a written notice to the Controller, the Mayor and to all Contract Awarding Authorities or City and County department officials overseeing any Contract with the Contractor that a determination of non-compliance has been made and that all payments due the Contractor shall be withheld.
2. The CMD Director shall transmit a report to the Controller and other applicable City departments to ensure that the liquidated damages are paid to the City.

FORM 2B: "GOOD FAITH EFFORTS" REQUIREMENTS FORM

This "Good Faith Efforts" form, along with the required supporting documentation, must be completed and submitted per the instructions in this form, EVEN IF the LBE subcontracting/subconsulting participation requirement has been met *(Section 14B.8 of the San Francisco Administrative Code)*. At the time of bid/proposal, Bidders/Proposers must submit this form along with its Bid/Proposal to be responsive. Failure to fulfill at least one of the three different approaches below may deem the Bid/Proposal nonresponsive.

To assist Bidders/Proposers with outreach to LBEs, the CMD website has a directory of certified LBEs: https://sfgov.org/cmd/.

Choose one of the three approaches listed below on this form. Approaches B and C require submittal of supporting documentation.

☐ Approach A - 35% Approach

This approach is codified in Section 14B.8 of the San Francisco Administrative Code.

Under Approach A, a Bidder/Proposer must demonstrate that the total LBE participation requirement established for this project will be exceeded by at least 35%. This approach is illustrated in this CMD Attachment under Part IV.

- If a Contract has *separate* LBE sub participation requirements, the Bidder/Proposer must exceed by at least 35% the total sum of all the LBE sub participation requirements.
- A Small or Micro-LBE Prime Bidder/Proposer may not count its own contract work toward the LBE sub participation requirement portion, but may count its own contract work for the portion that exceeds the LBE sub participation requirement (i.e., 35% good faith outreach exception portion).
- An SBA-LBE Prime Bidder/Proposer may not count its own contract work towards the LBE sub participation requirement portion or the 35% good faith outreach exception portion.
- An SBA-LBE sub may count its participation towards the 35% good faith outreach exception portion if the Contract Monitoring Division Director permitted Bidders/Proposers to list SBA-LBE firms to satisfy the LBE sub participation requirement.

Select the boxes that apply:

Does your Bid/Proposal demonstrate that you have exceeded the established LBE sub participation requirement(s) by 35% or more in accordance with Section 14B.8(B)? ☐YES ☐NO

☐ I am a Small or Micro-LBE Prime Bidder/Proposer. I have listed LBE subs on Section 00 43 36/Form 2A/equivalent form to meet the established LBE sub participation requirement(s). I am relying on self-performed contract work to meet the 35% good faith outreach approach. Below is the total value of contract work I will perform with my own forces:

Percent (%) or Amount($) of Work: _____

☐ I am NOT a Small or Micro-LBE Bidder/Proposer. I have demonstrated on Section 00 43 36/Form 2A/equivalent form that the proposed LBE sub participation exceeds the sum of the established LBE sub participation requirements by at least 35%.

☐ Approach B - Inclusion of Micro-LBE

This approach establishes that the Prime is utilizing Micro-LBEs on their projects.

Under Approach B, the Bidder's/Proposer's good faith efforts must be demonstrated by listing a different Micro-LBE subcontractor/subconsultant on this Bid or Proposal than they have listed in the last five (5) most recently awarded CCSF Contracts with LBE sub participation requirements.

- A Prime Bidder/Proposer that has been awarded at least five (5) CCSF Contracts at the time of the current Bid/Proposal must list at least one (1) Micro-LBE firm on its team that the Prime Bidder/Proposer has not listed on its last five (5) most recently awarded CCSF Contracts.

- A Prime Bidder/Proposer that has been awarded four (4) or less CCSF Contracts at the time of the current Bid/Proposal must list at least one (1) Micro-LBE firm on its team that the Prime Bidder/Proposer has not listed on any of its previously awarded CCSF Contracts and must indicate below the number of CCSF Contracts that it has been previously awarded.

Enter exact number of CCSF awarded Contracts:

- If there are separate LBE sub participation requirements on this Bid/Proposal, the Prime Bidder/Proposer is only required to list at least one Micro-LBE on its team to meet the "Good Faith Efforts" requirement.

- A Prime Bidder/Proposer that has never listed a Micro-LBE sub on any of its CCSF awarded Contracts or that has never bid on a CCSF Contract, may also utilize this approach.

A Bidder/Proposer must list the last five (5) most recently awarded CCSF Contracts below. If a Bidder/Proposer has four (4) or less CCSF awarded Contracts, it must list below all of its CCSF awarded Contracts. This includes Contracts where the Bidder/Proposer received a notification of award, even if work has not begun or if the Contract is not yet complete.

- CCSF Contracts that do not have an LBE sub participation requirement are excluded from this approach.

- Contracts where a Micro-LBE was utilized for a substitution, firm addition, or a trade package for CM/GC or DB projects are excluded from this approach.

Contract Awarding Department	Contract Title	Contract Number	Contract Awarding **Department's Award** Date
1.			
2.			
3.			
4.			
5.			

Bidder/Proposer must submit the following supporting documents for verification purposes; failure to submit this documentation may result in the Bid/Proposal found non-responsive:

- For each of the Contracts listed above, the Prime Bidder/Proposer must include Section 00 43 36/CMD Form 2A/equivalent form submitted to the Contract Awarding Department.
- The Section 00 43 36, CMD Form 2A, or equivalent form must indicate the Contract Awarding Department, the Project Title and the Contract Number.

The Micro-LBE sub listed for Approach B must sign below. By signing below, the Micro-LBE is verifying that it has not been utilized on the Prime Bidder's/Proposal's projects provided above.

Contract Number and Name: _____

Signature of Micro-LBE Owner/Authorized Representative: _____

Micro-LBE Owner/Authorized Representative (Print): _____

Name of Firm (Print): _____

Title and Position: _____

Address, City, ZIP: _____

Telephone/E-mail: _____

Date: _____

☐ Approach C – Good Faith Negotiation(s)

This approach awards points for negotiating with LBEs in good faith.

Under Approach C, the Bidder's/Proposer's good faith outreach will be evaluated based on the entire team listed for the contract, even if the contract includes separate LBE sub participation requirement(s).

- A Bidder/Proposer must achieve at least 50 points with any combination of Items #1 through #3 below, as determined by CMD, to be deemed compliant with the "good faith outreach" requirements. A Bidder/Proposer who fails to achieve at least 50 points will be declared nonresponsive, and the Bid/Proposal will be rejected. Please check "yes" or "no" for each item listed below. Supporting documentation for Items #1 through #3 below must be submitted with the Bid/Proposal.

1. Did your firm contact CMD certified LBE firms, not less than 10 calendar days prior to the due date of the Bid/Proposal? If so, you must include email documentation showing the date of the contact with your Bid/Proposal to verify that contacts were made timely. The purpose of contacting LBE firms is to provide notice of interest in bidding/proposing for this project. When contacting LBEs, you should provide adequate information about the plans, specifications, and requirements for the work. A Bidder/Proposer will receive 1 point for each LBE firm contacted, not less than 10 calendar days prior to the due date of the Bids/Proposals. The Bidder/Proposer may receive up to a maximum of 10 points for this item. There is no limitation to how many LBE firms a Bidder/Proposer can contact. Where there are fewer than 10 LBE firms available for subcontracting, and CMD has confirmed as such prior to the bid/proposal due date, the bidder/proposer will receive the 10 points as long as all potential LBE firms are contacted. If the City gave public notice of the project less than 15 calendar days prior to the Bid/Proposal due date, the allocation of points above still applies, except that the Bidder/Proposer may contact those LBE firms identified less than 10 calendar days prior to the due date of the Bid/Proposal.	☐ Yes (Maximum of 10 points)	☐ No (0 points)
2. Did your firm follow-up/negotiate in good faith with interested LBEs*? Your follow-up contact(s) with interested LBEs should include, but are not limited to correspondence regarding: the scope of work/services, quotes/billing rates, qualifications and/or expectations; the City's bonding and financial assistance program(s); assistance available to potential LBE subcontractors/subconsultants to properly mobilize; reduction of your firm's pre-qualification standards; etc. The Bidder/Proposer shall submit the following documentation: a) Identify each interested LBE firm you are submitting email correspondence/documentation for; b) Copies of <u>ALL</u> email correspondence for each LBE identified for Item #2 (Note that the initial email correspondence from Items #1 above will not count towards the subject Item)—At a minimum, the Bidder/Proposer must include email documentation showing a response to the interested LBE; c) A full and complete statement of the reason(s) why any of the LBE firms identified for Item #2 was not selected for the subject project. For each interested LBE firm that the Bidder/Proposer does follow-up with, the Bidder/Proposer will receive 10 points. There is no maximum amount of points/limitation to how many LBE firms a Bidder/Proposer can correspond with and follow-up/negotiate in good faith. A Bidder/Proposer who does not perform any follow-up contact with interested LBEs will receive zero points for Item #2. * "Interested LBE" shall mean an LBE firm that expresses interest in being a subcontractor/subconsultant/supplier to the Bidder/Proposer for the subject solicitation.	☐ Yes (Minimum of 10 points to no Maximum)	☐ No (0 points)

3. As part of your Bid/Proposal, did your firm list an LBE identified from Item #2 above? For each LBE that is identified under Item #2 above, the Bidder/Proposer will receive 30 points for listing said LBE for the subject solicitation on the specified sub listing form such as Section 00 43 36/CMD Form 2A/equivalent form. A Bidder/Proposer who does not list any LBEs from Item #2 above for the subject solicitation on Section 00 43 36/CMD Form 2A/equivalent form, will receive zero points for Item #3. The Bidder/Proposer shall submit the following documentation: a) Copies of all email correspondence between your firm and the LBE listed for the project, including written bids/quotes; b) A full and complete statement of the reasons for selection of the subcontractor(s)/subconsultant(s)/supplier(s). If the reasons are based on relative qualifications, the statement must address the particular qualification at issue. If the reason is based on the bid/quote amounts, the statement must include the amounts and describe the similarities and/or dissimilarities in the scope of work covered by the bids/quotes. c) Email notification to LBE that it will be listed on Section 00 43 36/CMD Form 2A/equivalent form and include the listed LBE's scope of work and dollar value/percentage. Pursuant to Section 14B.8(E) of the Ordinance, all Bidders/Proposers shall maintain the documentation described under this item for three years following submission of the Bid or completion of the Contract, whichever is later.	☐ Yes (Minimum of 30 points to no maximum)	☐ No (0 points)

For Approaches A through C, the Prime Bidder/Proposer declares and swears under penalty of perjury under the laws of the State of California that the foregoing statements/documentation are true and correct and accurately reflect its good faith efforts as required in this CMD Attachment, in Section 14B.8 and the accompanying Chapter 14B's Rules and Regulations.

Owner/Authorized Representative (Signature)	Owner/Authorized Representative (Signature)
Name (Print) and Title	Name (Print) and Title
Firm Name	Firm Name
Telephone Email	Telephone Email

FORM 3: CMD COMPLIANCE AFFIDAVIT

1. I will ensure that my firm complies fully with the provisions of Chapter 14B of the San Francisco Administrative Code and its implementing Rules and Regulations and attest to the truth and accuracy of all information provided regarding such compliance.

2. Upon request, I will provide the CMD with copies of Contracts, subcontract agreements, certified payroll records and other documents requested so the HRC and CMD (as applicable) may investigate claims of discrimination or non-compliance with either Chapter 12B or Chapter 14B.

3. I acknowledge and agree that any monetary penalty assessed against my firm by the Director of the CMD shall be payable to the City and County upon demand. I further acknowledge and agree that any monetary penalty assessed may be withheld from any monies due to my firm on any Contract with the City and County of San Francisco.

4. I declare and swear under penalty of perjury under the laws of the State of California that the foregoing statements are true and correct and accurately reflect my intentions.

Signature of Owner/Authorized Representative: _____

Owner/Authorized Representative (Print) _____

Name of Firm (Print) _____

Title and Position _____

Address, City, ZIP _____

Federal Employer Identification Number (FEIN): _____

Email _____

Date: _____

FORM 6: CMD LBE SUBCONTRACTOR PARTICIPATION AFFIDAVIT

This affidavit is to be completed by each LBE subcontractor or supplier (including lower tier subcontractors) and submitted to the apparent low Bidder. The apparent low Bidder shall submit the completed affidavits and copies of the subcontractors' or suppliers' bid quotations to the CMD no later than 5:00 p.m. on the fifth business day following the Bid opening. Subcontractor may attach additional sheets if more space is needed to provide complete information.

Contract Number: _____ Contract Name: _____

Name of Bidder: _____

Name of LBE Sub or Supplier: _____

License #: _____ Scope of work: _____

1. _____ verify that _____ bid to
   Name of LBE Owner/Representative — LBE Firm

   the above referenced Bidder for subcontracting work in the amount of $ _____ and have been offered a subcontract in that amount.

2. Please list major vendors/suppliers of goods/services for this project:

Name	Phone	Product(s)	$ Amount
			$
			$
			$

3. Please describe scope(s) of work:

4. Check one:

☐ We will NOT subcontract out ANY portion of our work to another subcontractor.

☐ We WILL subcontract out_____% of our work to: _____
Firm

in the amount of $_____. This business is a: ☐ LBE Certified ☐ Not LBE Certified.

5. ☐ **I have enclosed a copy of my Firm's Bid** Quotation.

I declare, under penalty of perjury, that the above information is true and correct and that our firm is a bona fide, certified LBE as defined under Chapter 14B of the San Francisco Administrative Code.

_____ _____
LBE Owner/Authorized Representative (Signature) — Date

_____ _____
Name and Title (Print) — Phone — Email

FORM 6A: CMD LBE TRUCKING FORM

This form must be submitted when the apparent low Bidder will be utilizing CMD certified LBE trucking firms. This form is to be completed to describe the complete scope of trucking work to be performed for the Contract and submitted to the CMD by 5 p.m. on the fifth day following Bid opening.

Contract Number: _____ Contract Name: _____

SECTION 1. TRUCKING ESTIMATE

Products to be Hauled:		
Type of equipment needed/indicate maximum Number of trucks needed per day:		
Quantity of product to be hauled:		
Estimated quantity per truckload:		
Estimated number of truckloads:		
Products to be hauled from (give point of origin):		
Estimated Number of truck hours per trip:		
Trucking Rate:		
Estimate of total trucking (Number of loads times hours per trip times trucking hourly rate):		

If an assigned Trucker is being paid for Administrative Work (i.e. Dispatcher), Describe and State Amount to be Paid: _____

Is this assigned Trucking firm an LBE or Non-LBE firm, specify: ☐ LBE ☐ Non-LBE

Total Dollar Amount Committed to LBE Truckers: $ _____

* Disposal fee and equipment rental fee will not be counted towards meeting the LBE trucking dollars amount.

SECTION 2. TRUCKING AND HAULING FIRMS

List below CMD certified LBE trucking and hauling firms that will be utilized on this project along with any trucking firms that it will further subcontract out portions of its work. *Copy this form for additional truckers and provide the requested information for each LBE trucker.*

Firm Name:	☐ LBE ☐ Non-LBE
Products to be hauled:	
Number of Trucks Needed:	
Type of Trucks Needed:	
Proposed Dollar Amount of subcontract:	

Firm Name:	☐ LBE ☐ Non-LBE
Products to be hauled:	
Number of Trucks Needed:	
Type of Trucks Needed:	
Proposed Dollar Amount of subcontract:	

Firm Name:	☐ LBE ☐ Non-LBE
Products to be hauled:	
Number of Trucks Needed:	
Type of Trucks Needed:	
Proposed Dollar Amount of subcontract:	

Firm Name:	☐ LBE ☐ Non-LBE
Products to be hauled:	
Number of Trucks Needed:	
Type of Trucks Needed:	
Proposed Dollar Amount of subcontract:	

Firm Name:	☐ LBE ☐ Non-LBE
Products to be hauled:	
Number of Trucks Needed:	
Type of Trucks Needed:	
Proposed Dollar Amount of subcontract:	

I declare, under penalty of perjury that I am the owner or authorized representative of this firm and that the foregoing is true and correct.

_____
Owner/Authorized Representative (Signature)

_____
Name and Title (Print)

_____
Firm Name

_____
Telephone Email Date

SECTION 00 49 12

EXPERIENCE STATEMENT

Refer to Section 00 21 13 (Instructions to Bidders – Bidder's Qualifications) for instructions. Add additional sheets, as necessary, to demonstrate compliance with the requirements specified in Section 00 21 13. RESUMES WILL NOT BE ACCEPTED IN LIEU OF COMPLETED EXPERIENCE STATEMENT FORMS.

EXPERIENCE FOR (CHECK ONE): ☐ Key Team Member ☐ Subcontractor		
PROJECT POSITION OR SUBCONTRACTOR WORK:		
NAME OF PROPOSED PERSON OR SUBCONTRACTOR:		
BUSINESS ADDRESS:		TELEPHONE:
NUMBER OF YEARS WITH BIDDING CONTRACTOR:	TOTAL NUMBER OF YEARS EXPERIENCE IN CONSTRUCTION INDUSTRY:	
IS PROPOSED PERSON EMPLOYED BY BIDDER? ☐ Yes; ☐ No; IF "NO", LIST NAME AND PHONE OF EMPLOYER:		
NAME OF EMPLOYER:		TELEPHONE:

Project Experience:

(a)

PROJECT NAME:		
POSITION OR SCOPE OF WORK:		
DATES SPENT AT PROJECT:	PROJECT COST: $	
DESCRIPTION OF POSITION OR SCOPE OF WORK:		
NAME OF OWNER'S REPRESENTATIVE:		
TITLE:	TELEPHONE:	
BUSINESS ADDRESS:		

(b)

PROJECT NAME:		
POSITION OR SCOPE OF WORK:		
DATES SPENT AT PROJECT:	PROJECT COST: $	
DESCRIPTION OF POSITION OR SCOPE OF WORK:		
NAME OF OWNER'S REPRESENTATIVE:		
TITLE:	TELEPHONE:	
BUSINESS ADDRESS:		

(c)

PROJECT NAME:	
POSITION OR SCOPE OF WORK:	
DATES SPENT AT PROJECT:	PROJECT COST: $
DESCRIPTION OF POSITION OR SCOPE OF WORK:	
NAME OF OWNER'S REPRESENTATIVE:	
TITLE:	TELEPHONE:
BUSINESS ADDRESS:	

(d)

PROJECT NAME:	
POSITION OR SCOPE OF WORK:	
DATES SPENT AT PROJECT:	PROJECT COST: $
DESCRIPTION OF POSITION OR SCOPE OF WORK:	
NAME OF OWNER'S REPRESENTATIVE:	
TITLE:	TELEPHONE:
BUSINESS ADDRESS:	

(e)

PROJECT NAME:	
POSITION OR SCOPE OF WORK:	
DATES SPENT AT PROJECT:	PROJECT COST: $
DESCRIPTION OF POSITION OR SCOPE OF WORK:	
NAME OF OWNER'S REPRESENTATIVE:	
TITLE:	TELEPHONE:
BUSINESS ADDRESS:	

Copy this page as needed to provide a complete listing.

END OF SECTION

SECTION 00 49 14

CERTIFICATION OF SUBCONTRACTOR, LOWER-TIER SUBCONTRACTOR OR SUPPLIER REGARDING DEBARMENT AND SUSPENSION*

I, _____ , by affixing my signature hereto, under penalty of perjury, hereby certify, except as noted below, that the subcontractor, lower-tier subcontractor or supplier and/or its principals:

1. are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any government agency;

2. have not within a 3-year period preceding this Bid entered a guilty plea, been convicted of, or had a civil judgment rendered against any of us for: (i) commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public or private agreement or transaction; (ii) violation of federal or state antitrust statutes, including those proscribing price fixing between competitors, allocation of customers between competitors, and bid rigging; (iii) commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, receiving stolen property, making false claims, or obstruction of justice; and/or (iv) commission of any other offense indicating a lack of business integrity or business honesty that seriously and directly affects the entity's present responsibility;

3. are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state or local) with commission of any of the offenses enumerated in item 2 above; and

4. have not within a 3-year period preceding this Bid had one or more public transactions (federal, state or local) terminated for cause or default.

Where the subcontractor, lower-tier subcontractor or supplier is unable to certify to any of the statements in this certification because it currently violates or has previously violated the above conditions of the certification, such subcontractor, lower-tier subcontractor or supplier shall provide description of each exception and attach an explanation to this Section. The subcontractor, lower-tier subcontractor or supplier declares the following exceptions to the above representations: *(If there are exceptions to this Certification, insert the exceptions in the space provided below.)*

_____

_____

_____

Exceptions will not necessarily result in denial of award of the Contract, but will be considered in determining the Bidder's responsibility. For each exception noted above, indicate below to whom it applies, name of the government entity and dates of action:

Exception	Person	Government Entity	Dates Inclusive

_____
Subcontractor/Supplier's Name

Name and Title of Signer

Subcontractor/Supplier Street Address

Subcontractor/Supplier City, State, ZIP

Subcontractor/Supplier Telephone No.

Signature of Subcontractor/Supplier or Authorized Representative

Date

NOTICE: Providing false information may result in criminal prosecution or administrative sanctions.

** Applicable to all subcontracts, purchase orders and other lower tier transactions of $25,000 or more.*

END OF SECTION

SECTION 00 49 16

DEPARTMENT OF INDUSTRIAL RELATIONS REQUIREMENTS

No contractor may bid and no subcontractor may be listed in a bid for a public works project unless registered with the California Department of Industrial Relations ("DIR") pursuant to Labor Code §1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code §1771.1(a)]. **Complete this Section and email it to the Workforce & Economic Program Services Bureau (pwc100@sfwater.org) no more than five (5) business days after Bid opening.**

PRIME CONTRACTOR: _____
Name of Firm or Corporation

_____ _____
Department of Industrial Relations No. Contractor's California License No.

_____ _____
Principal Point of Contact Name Principal Point of Contact E-Mail Address

Classification of Types of Work to be Performed by Prime Contractor Under the Contract (check all that apply):

☐ Asbestos	☐ Boilermaker	☐ Bricklayers	☐ Carpenters	☐ Carpet/Linoleum
☐ Cement Masons	☐ Drywall Finisher	☐ Drywall/Lathers	☐ Electricians	☐ Elevator Mechanic
☐ Glaziers	☐ Iron Workers	☐ Laborers	☐ Millwrights	☐ Operating Engineers
☐ Painters	☐ Pile Drivers	☐ Pipe Trades	☐ Plasterers	☐ Roofers
☐ Sheet Metal	☐ Sound/Comm	☐ Surveyors	☐ Teamster	☐ Tile Workers

☐ Other(s): _____

SUBCONTRACTOR: _____
Name of Firm or Corporation

_____ _____
Department of Industrial Relations No. Contractor's California License No.

_____ _____
Principal Point of Contact Name Principal Point of Contact E-Mail Address

Classification of Types of Work to be Performed by Subcontractor Under the Contract (check all that apply):

☐ Asbestos	☐ Boilermaker	☐ Bricklayers	☐ Carpenters	☐ Carpet/Linoleum
☐ Cement Masons	☐ Drywall Finisher	☐ Drywall/Lathers	☐ Electricians	☐ Elevator Mechanic
☐ Glaziers	☐ Iron Workers	☐ Laborers	☐ Millwrights	☐ Operating Engineers
☐ Painters	☐ Pile Drivers	☐ Pipe Trades	☐ Plasterers	☐ Roofers
☐ Sheet Metal	☐ Sound/Comm	☐ Surveyors	☐ Teamster	☐ Tile Workers

☐ Other(s): _____

Page 1 of _____

SUBCONTRACTOR: _____
Name of Firm or Corporation

_____ _____
Department of Industrial Relations No. Contractor's California License No.

_____ _____
Principal Point of Contact Name Principal Point of Contact E-Mail Address

Classification of Types of Work to be Performed by Subcontractor Under the Contract (check all that apply):

☐ Asbestos	☐ Boilermaker	☐ Bricklayers	☐ Carpenters	☐ Carpet/Linoleum
☐ Cement Masons	☐ Drywall Finisher	☐ Drywall/Lathers	☐ Electricians	☐ Elevator Mechanic
☐ Glaziers	☐ Iron Workers	☐ Laborers	☐ Millwrights	☐ Operating Engineers
☐ Painters	☐ Pile Drivers	☐ Pipe Trades	☐ Plasterers	☐ Roofers
☐ Sheet Metal	☐ Sound/Comm	☐ Surveyors	☐ Teamster	☐ Tile Workers

☐ Other(s): _____

SUBCONTRACTOR: _____
Name of Firm or Corporation

_____ _____
Department of Industrial Relations No. Contractor's California License No.

_____ _____
Principal Point of Contact Name Principal Point of Contact E-Mail Address

Classification of Types of Work to be Performed by Subcontractor Under the Contract (check all that apply):

☐ Asbestos	☐ Boilermaker	☐ Bricklayers	☐ Carpenters	☐ Carpet/Linoleum
☐ Cement Masons	☐ Drywall Finisher	☐ Drywall/Lathers	☐ Electricians	☐ Elevator Mechanic
☐ Glaziers	☐ Iron Workers	☐ Laborers	☐ Millwrights	☐ Operating Engineers
☐ Painters	☐ Pile Drivers	☐ Pipe Trades	☐ Plasterers	☐ Roofers
☐ Sheet Metal	☐ Sound/Comm	☐ Surveyors	☐ Teamster	☐ Tile Workers

☐ Other(s): _____

Copy this page as needed to provide a complete listing of all subcontractors.

Page _____ of _____

END OF SECTION

SECTION 00 49 18

REQUEST FOR PRODUCT SUBSTITUTION ("RFPS")

In accordance with California Public Contract Code Section 3400, Contractor will be provided a period of 35 days after the date of Award for submission of data substantiating a request for a substitution with an "or equal" item. Refer to Division 01 for requirements for requesting substitutions. Any cost saving resulting from the substitution shall be split equally between the Contractor and the City. Should the City not approve the substitution, the Contractor has no claim for anticipated savings or profits.

Contract No.: WW-XYZ RFPS No. _____

Project Name: Sample PUC Contract

Submitted By: _____ Date: _____

Spec. Section: _____ Paragraph(s): _____

Drawing Sheet: _____ Detail(s): _____

Proposed Substitution: _____

Manufacturer/Address/Phone: _____

_____

Trade Name/Model No.: _____

On-Site Representative/Address/Phone: _____

_____

Installer/Address/Phone: _____

Product History: ___ New ___ 2-5 years old ___ 5-10 years old ___ More than 10 years old

Differences between proposed substitution and specified product (Attach required point by point comparative data):

_____

Reason for not providing specified item: _____

_____

Similar installation where proposed substitution has been used (Project/Address/Architect/Owner/Date Installed):

_____

_____

Proposed substitution affecting other parts of Work: ___ No ___ Yes: explain _____

_____

Changes or modifications needed to coordinate other parts of the Work that will be necessary to accommodate the proposed substitution:

_____

_____

_____

_____

Savings to City for accepting substitution:_____($_____)

Proposed substitution changes Contract Time: ___ No ___ Yes:

Add/Deduct_____ calendar days.

Supporting data attached: ___ Product Data ___ Drawings ___ Test Reports ___ Samples ___ Other: _____

The undersigned certifies that:

1. The proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
2. The proposed substitution conforms in all respects to the requirements of the Contract Documents and is appropriate for the applications intended.
3. The same warranty will be furnished for proposed substitution as for specified product.
4. The proposed substitution will not affect or delay progress schedule.
5. The cost data as stated above is complete. There shall be no claims to the City for additional costs related to an accepted substitution.
6. The proposed substitution does not affect dimensions and functional clearances.
7. Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

Submitted by: _____ Signature: _____
Firm: _____ Date: _____

Attachments _____

CITY'S REVIEW AND ACTION

- ❑ Substitution accepted - Make submittals in accordance with Division 01.
- ❑ Substitution accepted as noted - Make corrections and submit in accordance with Division 01.
- ❑ Substitution rejected - Use specified materials and equipment.
- ❑ Substitution Request received too late - Use specified materials.

Signed _____ Date _____

Note: The City's acceptance of Contractor's submittal of shop drawings, product data, or samples supporting this Substitution Request shall not constitute approval of submittals which do not conform to the requirements of the Contract Documents.

Additional Comments: _____

END OF SECTION

SECTION 00 52 00

AGREEMENT FORM

THIS AGREEMENT is made for the convenience of the parties this _____day of _____, 202__ by and between _____, located at _____ ("CONTRACTOR"), and the City and County of San Francisco, State of California (the "CITY"), acting through the General Manager (the "GENERAL MANAGER") of the San Francisco Public Utilities Commission (the "SFPUC"), under and by virtue of the Charter and Administrative Code of the City and County of San Francisco.

WHEREAS, the San Francisco Public Utilities Commission awarded this AGREEMENT to CONTRACTOR on the _____ day of _____, 202____, under SFPUC Resolution No. _____, as more fully appears in the formal record of the proceedings of the San Francisco Public Utilities Commission.

Sample PUC Contract
Contract No. WW-XYZ

NOW, THEREFORE, CONTRACTOR, in consideration of the mutual covenants set forth in this AGREEMENT, promises and agrees to provide all services to construct the Project in accordance with the requirements of the Contract Documents, to perform the Work in good and workmanlike manner to the satisfaction of the GENERAL MANAGER, to prosecute the Work with diligence from day to day to Final Completion, to furnish all construction work, labor and materials to be used in the execution and completion of the Work in accordance with the Contract Documents, and to otherwise fulfill all of CONTRACTOR's obligations under the Contract Documents, as and when required under the Contract Documents to the satisfaction of the GENERAL MANAGER.

CONTRACTOR's execution of this AGREEMENT signifies its acceptance of the Contract Time and Contract Sum as being sufficient for completion of the Work, as well as acceptance of the other terms and conditions of the Contract Documents.

ARTICLE 1 – CONTRACT DOCUMENTS; CONTRACTOR'S GENERAL RESPONSIBILITIES

1.01 Contract Documents. CONTRACTOR shall provide all Work according to the Contract Documents, which are incorporated into and made a part of this AGREEMENT by this reference, and all labor and materials used in providing the Work shall comply with the Contract Documents. The Contract Documents, which comprise the entire agreement between CONTRACTOR and the CITY concerning the Provision of the Work, are defined in the General Conditions (Section 00 72 00). Any undefined term used in this AGREEMENT shall be given the definition set forth in the General Conditions (Section 00 72 00).

1.02 Contractor's General Responsibilities. CONTRACTOR shall provide a fully functional, complete and operational Project constructed in accordance with the Contract Documents, including but not limited to, all investigations, analyses, surveys, engineering, procurement, materials, labor, workmanship, construction and erection, commissioning, equipment, shipping, subcontractors, material suppliers, permits, insurance, bonds, fees, taxes, duties, documentation, spare parts,

materials for initial operation, security, disposal, startup, testing, training, warranties, guarantees, and all incidentals.

ARTICLE 2 – CONTRACT TIME

2.01 Completion Dates. As set forth in Section 00 73 02, the Work shall be Substantially Complete within _____ consecutive calendar days, beginning with and including the official date of Notice to Proceed as established by the GENERAL MANAGER, and Finally Complete in accordance with Article 9 of the General Conditions (Section 00 72 00) within _____ consecutive calendar days after the date the CITY issues a Notice of Substantial Completion.

2.02 Liquidated Damages. It is understood and agreed by and between CONTRACTOR and the CITY that time is of the essence in all matters relating to the Contract Documents and that the CITY will suffer financial loss if the Work is not completed within the above-stated Contract Times, plus any extensions thereof allowed in accordance with Article 7 of the General Conditions (Section 00 72 00). The CITY and CONTRACTOR further understand and agree that the actual cost to CITY which would result from CONTRACTOR's failure to complete the Work within the Contract Time is extremely difficult, if not impossible, to determine. Accordingly, CONTRACTOR and the CITY agree that as liquidated damages for delay (but not as a penalty), CONTRACTOR shall pay the CITY the amounts set forth in Section 00 73 02 (Contract Time and Liquidated Damages) for each calendar day that expires after the above Contract Times and the Work remains incomplete.

ARTICLE 3 – CONTRACT SUM

3.01 Contract Sum.

A. CONTRACTOR and the CITY agree that, upon performance and fulfillment of the mutual covenants set forth herein, the CITY will, in the manner provided by law and as set forth in the Contract Documents, pay or cause to be paid to CONTRACTOR the following price(s), as indicated in the Schedule of Bid Prices (Section 00 41 10):

1. Lump sums for specified portions of the Work.

2. The total of all Unit Price Items bid.

3. The allowance(s) specified.

4. Selected additive Alternate Bid Items.

Total awarded contract amount:_____

The price(s) and amount set forth above shall be adjusted during performance or upon final completion of the Work in accordance with the Contract Documents.

B. CONTRACTOR understands and agrees that the CONTRACTOR shall be solely responsible for providing all resources that may be necessary to provide the Work, and that the CITY shall have no obligation whatsoever to finance any part of such costs except with respect to those amounts which become due under the terms and conditions of the Contract Documents.

3.02 Certification by Controller. This AGREEMENT is subject to the budget and fiscal provisions of the CITY's Charter. Charges will accrue only after prior written authorization certified by the

Controller, and the amount of the CITY's obligation hereunder shall not at any time exceed the amount certified for the purpose and period stated in such advance authorization.

A. Charter Section 3.105, the award of this contract is subject to certification by the Controller as to the availability of funds. Charges will accrue only after prior written authorization certified by the Controller, and the amount of the CITY's obligations will not at any time exceed the amount certified for the purpose and period stated in such advance authorization. The CITY will not certify funds for the entire project but will do so on an incremental basis as the funds are needed. Once funds are certified for a particular scope of work, the CITY acknowledges it will be obligated to pay the CONTRACTOR the amount of funds certified by the Controller for conforming work actually performed, provided there is no offset by the CITY for liquidated damages, non-conforming work, or other circumstances preventing payment. The CITY acknowledges that the CONTRACTOR and its subcontractors are not obligated to perform any work that is not covered by funds certified by the Controller for the Project. In the event of delays in the availability of additional funding, the CITY reserves all rights to suspend or terminate the Contract for convenience as set forth in the General Conditions, Section 00 72 00, Article 14.

B. The SFPUC will issue purchase orders incrementally as needed to fund project work over the duration of the project, which serves the functions of Controller certification and encumbrance of project funds available for payments.

C. Upon written request from the CONTRACTOR for the status of funds allocated for the Project, CITY shall respond within 15 days. If the CITY becomes aware of any material changes to its ability to fund services to be provided by the CONTRACTOR, it shall promptly notify the CONTRACTOR.

ARTICLE 4 – LABOR REQUIREMENTS

4.01 Applicable Laws and Agreements. Compensation and working conditions for labor performed or services rendered under this AGREEMENT shall be in accordance with the Contract Documents, the San Francisco Charter, and applicable sections of the Administrative Code, including section 6.22(e). In addition, this Project is subject to the requirements of the Water System Improvement Program Project Labor Agreement ('WSIP PLA") and Sewer System Improvement Program and Auxiliary Water Supply System Pumping Station 2 Project PLA Extension Agreement ("Extension Agreement"), collectively "PLA" (see Sections 00 52 10 and 00 73 18.10). Any conflict between the terms of the PLA and the other Contract Documents shall be resolved in favor of the PLA. In addition, this Project is subject to the requirements of the San Francisco Local Hiring Policy for Construction, Administrative Code Section 6.22(g) and Chapter 82. Refer to Section 00 73 30 for further information.

4.02 Prevailing Wages. The latest Wage Rates for Private Employment on Public Contracts as determined by the San Francisco Board of Supervisors and the Director of the California Department of Industrial Relations, and, when federal funds are involved, the current General Wage Determination Decisions, as determined by the U.S. Secretary of Labor, as same may be changed during the term of this AGREEMENT, shall be included in this AGREEMENT and are hereby incorporated by this reference. CONTRACTOR agrees that any person performing labor in the provision of the Work shall be paid not less than the highest general prevailing rate of wages as so determined. If federal funds are involved, where the minimum rate of pay for any classification differs among State, City and Federal wage rate determinations, the highest of the

three rates of pay shall prevail. CONTRACTOR shall include, in any contract or subcontract relating to the Work, a requirement that all persons performing labor under such contract or subcontract shall be paid not less than the highest prevailing rate of wages for the labor so performed. CONTRACTOR shall require any contractor to provide, and shall deliver to CITY every month during any construction period, certified payroll reports with respect to all persons performing labor in the Provision of the Work.

A. Copies of the latest prevailing wage rates are on file at the San Francisco Public Utilities Commission, City and County of San Francisco, Contract Administration Bureau, 525 Golden Gate Avenue, 8th Floor, San Francisco, CA 94102.

4.03 Penalties. CONTRACTOR shall forfeit to the CITY back wages due plus not less than fifty dollars ($50.00) for:

A. Each laborer, workman, or mechanic employed in the provision of the Work, for each calendar day or portion thereof during which such laborer, workman, or mechanic is not paid the highest general prevailing rate of wage for the work performed; or

B. Each laborer, mechanic or artisan employed in the provision of the Work, for each calendar day or portion thereof during which such laborer, mechanic or artisan is compelled or permitted to work for a longer period than five days (Monday-Friday) per calendar week of eight hours each, and not compensated in accordance with the prevailing overtime standard and rate.

ARTICLE 5 – NOTICES TO PARTIES

5.01 Unless otherwise indicated in the Contract Documents, all written communications sent by the Parties may be by U.S. mail, e-mail or by fax, and shall be addressed as follows:

To CITY: *Contact the designated City Representative*

To CONTRACTOR: _____
(Contractor's name)

_____
(Contractor's mailing address)

_____
(Contractor's e-mail address)

_____
(Contractor's fax no.)

5.02 From time to time, the parties may designate new address information by notice in writing, delivered to the other Party.

5.03 The delivery to CONTRACTOR at the legal address listed above, as it may be amended upon written notice, or the depositing in any post office or post office box regularly maintained by the United States Postal Service in a postage paid wrapper directed to CONTRACTOR at such

address, of any drawing, notice, letter or other communication shall be deemed legal and sufficient service thereof upon CONTRACTOR.

ARTICLE 6 – COMPENSABLE DELAY

6.01 If CONTRACTOR is entitled to an increase in the Contract Sum as a result of compensable delay determined under the General Conditions and Supplementary Conditions, then the Contract Sum will be increased by the sum of $ [Daily Rate for Compensable Delay – Box A, Schedule of Bid Prices] per day for each day such compensation is payable. If Contactor (Bidder) did not list a dollar figure under Box A, Schedule of Bid Prices, then the Daily Rate for Compensable Delay is deemed to be $500 (five-hundred dollars) per day.

ARTICLE 7 – TERMINATION AND SURVIVAL

7.01 This AGREEMENT and the other Contract Documents shall terminate when all obligations required to be performed by CONTRACTOR and the CITY have been fulfilled, unless sooner terminated as set forth in Article 14 of the General Conditions (Section 00 72 00).

7.02 The provisions of the Contract Documents which by their nature survive termination of the Contract, including without limitation all warranties, indemnities, payment obligations, and the City's right to audit Contractor's books and records, shall remain in full force and effect after termination of the Contract.

IN WITNESS WHEREOF, the CONTRACTOR and the CITY have hereunto set their hands and seals, and have executed this AGREEMENT in duplicate, the day and year first above written.

CONTRACTOR:
By my signature hereunder, as CONTRACTOR, I certify that I have read and understand the section captioned MacBride Principles – Northern Ireland including in Section 00 73 73, the CITY's statement urging companies doing business in Northern Ireland to move towards resolving employment inequities, encouraging compliance with the MacBride Principles, and urging San Francisco companies to do business with corporations that abide by the MacBride Principles.

I further certify that I am aware of the provisions of California Labor Code Section 3700 of the Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the Work of this Contract.

CITY

By:_____
General Manager, San Francisco Public Utilities Commission

[***CONTRACTOR***]

Principal
By_____

_____
Title

_____
Print Name

ATTEST:
Authorized by the
SAN FRANCISCO PUBLIC UTILITIES
COMMISSION

By Commission Resolution No.: _____,
adopted:_____, 202___, copy
attached herewith and marked Exhibit _____.

_____
Secretary, San Francisco Public Utilities Commission

Approved as to form:
David Chiu
City Attorney

By:_____
Deputy City Attorney

_____
Print Name

END OF SECTION

Ivy Fine, Director
Project Administration Bureau
San Francisco Public Utilities Commission
525 Golden Gate Avenue, 8th Floor
San Francisco, CA 94102

Re: WW-XYZ Sample PUC Contract
Project Labor Agreement – Letter of Assent

Dear Ms. Fine:

The undersigned party confirms that it agrees to be a party to and bound by the Project Labor Agreement (PLA), adopted for the Water System Improvement Program and extended by the PLA Extension Agreement to the Sewer System Improvement Program and Auxiliary Water Supply System Pumping Station 2 projects (Extension Agreement), as such Agreements may, from time to time, be amended by the parties or interpreted pursuant to its terms.

The undersigned, as a Contractor or Subcontractor (hereinafter CONTRACTOR) on the Project WW-XYZ Sample PUC Contract

(hereinafter PROJECT), for and in consideration of the award to it of a contract to perform work on said PROJECT, and in further consideration of the mutual promises made in the PLA and Extension Agreement, copies of which were received and are acknowledged, hereby:

(1) Accepts and agrees to be bound by the terms and conditions of the PLA and Extension Agreement, together with any and all amendments and supplements now existing or which are later made thereto:
(2) The CONTRACTOR agrees to be bound by the legally established local trust agreements as set forth in Article IX of this PLA and Extension Agreement.
(3) The CONTRACTOR authorizes the parties to such local trust agreements to appoint trustees and successor trustees to administer the trust funds and hereby ratifies and accepts the trustees so appointed as if made by the CONTRACTOR;
(4) Certifies that it has no commitments or agreements that would preclude its full and complete compliance with the terms and conditions of said PLA and Extension Agreement.
(5) Agrees to secure from any CONTRACTOR(S) (as defined in said PLA and Extension Agreement) which is or becomes a Subcontractor (of any tier) to it, a duly executed Agreement to be bound in form identical to this document.

Date	Signature
Name of Contractor	Authorized Officer and Title
Contractor's State License No.	Address
Name of Prime Contractor or Higher Tier Subcontractor	Phone Fax

SECTION 00 61 13

PERFORMANCE AND PAYMENT BOND FORM

KNOW ALL BY THESE PRESENTS, that WHEREAS, the San Francisco Public Utilities Commission of the City and County of San Francisco, State of California, has awarded to:

_____

hereinafter designated as the "Principal", a Contract by COMMISSION RESOLUTION NO. _____, adopted _____, 202__ for:

Sample PUC Contract
Contract No. WW-XYZ (Award $)

WHEREAS, said Principal is required under the terms of said Contract to furnish a Bond for the faithful performance of said Contract; and to furnish a separate Bond for the payment of any materials, provisions, or other supplies, used in, upon, for or about the performance of the Work contracted to be done;

NOW, THEREFORE, we the Principal and

_____

as Surety, are firmly bound unto the City and County of San Francisco in the penal sum of

(PERFORMANCE BOND) (PAYMENT BOND)

_____ and _____

United States Dollars for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally firmly by these presents for the penal sum for a performance bond and an equal and separate penal sum for a separate payment bond. The conditions of this obligation is such that if the said principal does well and faithfully performs all the conditions and covenants of said Contract, according to the true intent and meaning thereof, upon its part to be kept and performed, then the above obligation is to be null and void, otherwise to remain in full force and effect.

(PERFORMANCE BOND)

THE CONDITION OF THIS OBLIGATION IS SUCH, that if the above bounden Principal, its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the said Contract, including the provisions for liquidated damages in the said Contract, any changes, additions or alterations thereof made as therein provided, on its part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless the City and County of San Francisco, its officers and agents, as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

(PAYMENT BOND)

THE CONDITION OF THIS OBLIGATION IS SUCH, that if said principal, its heirs, executors, administrators, successors or assigns, or its subcontractors, shall fail to pay (i) any of the persons named in California Civil Code Section 9100 for any materials, provisions, or other supplies used in, upon, for or about the performance of work under the Contract, or for any work or labor performed under the Contract; or (ii) amounts due under the California Unemployment Insurance Code with respect to work or

labor performed under the Contract; or (iii) for any amounts required to be deducted, withheld, and paid over to the State of California Employment Development Department from the wages of employees of Principal and subcontractors pursuant to Section 13020 of the California Unemployment Insurance Code with respect to such work or labor, that Surety will pay for the same in an amount not exceeding the sum specified in this Bond. In the event that suit is brought upon this Payment Bond, the parties not prevailing in such suit shall pay reasonable attorney's fees and costs incurred by the prevailing parties in such suit.

This Payment Bond shall inure to the benefit of any of the persons named in California Civil Code Section 9100 as to give a right of action to such persons or their assigns in any suit brought against this Bond.

Should the condition of this Payment Bond be fully performed, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.

Surety, for value received, hereby expressly agrees that no change, extension of time, modification, alteration or addition to the undertakings, covenants, terms, conditions and agreements of the Contract, or to the work to be performed thereunder, or to the Specifications accompanying the same, and no inadvertent overpayment of progress payments, shall in any way affect its obligations on these Bonds; and it does hereby waive notice of any such change, extension of time, modification, alteration or addition to the undertakings, covenants, terms, conditions and agreements of the Contract, or to the Work to be performed thereunder, or to the Specifications, or of any inadvertent overpayment of progress payments.

Should there be more than one surety executing this form on behalf of the Surety, each surety shall be jointly and severally liable for all obligations of Surety stated herein for the Performance and Payment Bonds.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their seal this ____ day of _____, 202__, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

By: _____ _____

Signature of Principal Representative Print Name of Principal Representative

By: _____ _____

Signature of Surety Representative Print Name of Surety Representative

_____

Print Name of Surety Company

Approved as to form:
David Chiu
City Attorney

By: _____ _____

Signature of Deputy City Attorney Print Name of Deputy City Attorney

END OF SECTION

SECTION 00 61 13/R

PERFORMANCE AND PAYMENT (LABOR AND MATERIAL) BOND RIDER FORM
RIDER NO. ___

Rider to be attached to and form a part of the Performance and Payment Bonds Number _____, dated the ____ day of _____, 202__,

And in the original amount of $_____

On behalf of Principal: _____

In favor of Obligee: City and County of San Francisco /
San Francisco Public Utilities Commission
Contract No. WW-XYZ

It is understood and agreed that effective the ____ day of _____, 202__, the Bond amount (penal sum) for each bond as it appears on the original bonds is being increased:

From: $_____

To: $_____

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their seal this ____ day of _____, 202__, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

By: _____ _____
Signature of Principal Representative Print Name of Principal Representative

By: _____ _____
Signature of Surety Representative Print Name of Surety Representative

_____
Print Name of Surety Company

Approved as to form:
David Chiu
City Attorney

By: _____ _____
Signature of Deputy City Attorney Print Name of Deputy City Attorney

Note: Contractor shall submit 2 original executed copies of this section to the City.

END OF SECTION

SECTION 00 62 20

SUBCONTRACTING PARTICIPATION REQUIREMENTS AND NON-DISCRIMINATION REQUIREMENTS

1.01 SUMMARY

A. This Section includes the City's Contract Monitoring Division subcontracting and non-discrimination requirements and compliance provisions as specified in CMD Attachment 1, "Requirements for Construction Contracts". Pursuant to Attachment 1 Subcontracting Participation Requirements for this Contract are specified therein.

B. Comply with all provisions to the extent necessary to fulfill their intent except where prohibited by state or federal law or regulation.

1.02 SUBCONTRACTING PARTICIPATION REQUIREMENTS

A. Under Chapter 14B of the Administrative Code, subcontracting participation requirements must be established for every contract on a case-by-case basis.

B. The LBE subcontractor participation requirement for this Contract is 20.00%.

Pursuant to San Francisco Administrative Code Section 14B.9, Bidders are advised that the availability of Minority Business Enterprises (“MBEs”), Woman Business Enterprises (“WBEs”) and Other Business Enterprises (“OBEs”) to perform subcontract work on this project is as follows:

Micro and Small-LBE subcontracting participation breakdown:

5.00% MBE; 6.00% WBE; 9.00% OBE.

Bidders are further advised that they may not discriminate in the selection of subcontractors on the basis of race, gender, or any other basis prohibited by law, and that they shall undertake all required good faith outreach steps in such a manner as to ensure that neither MBEs nor WBEs nor OBEs are not unfairly or arbitrarily excluded from the required outreach.

C. Compliance with the requirements is determined on the amount of the base bid only (even if alternates are selected). Refer to subparagraph 1.02A. of the CMD Attachment 1 for more information regarding Alternate Bid Items.

D. The City will monitor the quantities of Work and amounts paid therefor, dependent upon the method of construction and operations, for compliance with Contractor’s LBE subcontracting commitments and employment goals established under the provisions of Part III of CMD Attachment 1.

E. Bidders are reminded of the rules applicable to subcontracting credit for Specially Manufactured Items; refer to CMD Attachment 1, Part III, Section 3.01B. Refer to Section 01 60 00 for a list of Specially Manufactured Items for this Project, if any.

1.03 REFERENCES

A. Chapters 12B and 14B of the Administrative Code and the implementing rules and regulations are incorporated herein by reference and made a part of the Contract. Copies of these documents are available upon request at the CMD Office, and at the Web at http://www.sfgov.org/cmd.

1.04 SUBMITTALS

A. LBE Utilization Tracking

1. **FORM 7: CMD Progress Payment Form:** Contractor shall submit online using the SFPUC's approved system with each payment request. Failure to upload this information with each payment request may delay progress payment processing. Upload copies of invoices from all subcontractors**.**

2. **FORM 9: CMD Payment Affidavit:** Submit online using the SFPUC's approved system within ten (10) business days following receipt of each progress payment from the Contract Awarding Authority. Subcontractors are then required to acknowledge payment from Contractor online using the SFPUC's approved system. Failure to submit required information may lead to partial withholding of progress payment, even when there is no subcontractor payments for the reporting period.

B. **FORM 8: CMD Exit Report and Affidavit: Submit with final Form 7. A separate Form 8 must be** completed for each LBE subcontractor and supplier (including lower-tier subcontractors & suppliers).

C. **FORM 10: CMD Contract Modification Form:** This form shall be completed by the Prime Contractor when any (all) amendments, modifications, or supplemental change orders cumulatively increase the original contract amount (or last CMD approved value) by more than 20%, and then for all subsequent modifications.

D. Failure to submit any contract forms may result in sanctions under Chapter 14B, including but not limited to, withholding of progress and final payments.

E. Upon request from CMD, the Contractor must provide copies of invoices for itself and all subcontractors. Failure to submit all required information in the SFPUC's approved system or Contract Performance Forms as instructed may result in the withholding of progress payments and final payment pursuant to Chapter 14B.

1.05 REGULATORY REQUIREMENTS

A. Pursuant to Chapter 14B of the Administrative Code the following requirements are made part of the Contract:

1. Contractor shall sign and submit to the Contract Monitoring Division a declaration, declaring under penalty of perjury, its intention to fully comply with the provisions of chapter 14B. Refer to Form 3 (CMD3).

2. The willful failure of Contractor or its subcontractors to comply with any of the requirements of chapter 14B or to comply with the level of LBE subcontractor participation specified herein shall be deemed a material breach of contract.

3. In the event that the Director of Contract Monitoring Division finds that Contractor or any of its subcontractors willfully fails to comply with any of the provisions of Chapter 14B, rules and regulations implementing Chapter 14B, or Contract provisions pertaining to LBE participation, Contractor or its subcontractor shall be liable for liquidated damages as specified in Section 14B.7(H)(2) of the Administrative Code and CMD Attachment 1, Part V "Noncompliance and Sanctions," which shall be payable to the City upon demand and may be set off against moneys due to Contractor or its subcontractor for any contract with the City. Contractor agrees that progress payments shall be withheld, and Contractor's liability for liquidated damages assessed will be subject to the collection procedures specified in CMD Attachment 1, Part V "Noncompliance and Sanctions."

4. Contractor shall maintain, and shall require its subcontractors to maintain, records including such information requested by CMD necessary for monitoring their compliance with Chapter 14B. Such records shall be maintained for 3 years after the date of Final Completion.

5. Contractor shall fulfill during the term of the Contract its LBE participation commitments submitted with its Bid.

6. Contractor shall compensate a LBE subcontractor if Contractor does not fulfill its commitment during the term of the Contract to utilize the LBE subcontractor. Contractor shall include a contract provision in all LBE subcontracts requiring Contractor to compensate a LBE subcontractor if Contractor fails to comply with its commitment to utilize LBE subcontractors. The forgoing provisions shall be enforceable in a court of competent jurisdiction.

7. Whenever Change Orders are made which cumulatively increase the Contract Sum by more than 10%, Contractor shall comply with all LBE subcontracting provisions of this Section with respect to the Change Order.

8. The contracting authority for this Contract shall submit to the CMD for approval all Change Orders that cumulatively increase the Contract Sum (or last CMD approved value) by more than 20%. The CMD will review the proposed Change Order to correct any contracting practices that exclude LBEs from new contracting opportunities.

9. Back-contracting to Contractor or lower-tier subcontracting for any purpose inconsistent with the provisions of Chapter 14B, rules and regulations

implementing Chapter 14B, or Contract provisions pertaining to LBE participation shall be prohibited.

10. Contractor shall include LBE subcontractor's payment request in any payment application to the City within 30 calendar days of receiving LBE subcontractor's approved invoice.

11. Contractor shall pay its subcontractors within 3 working days after receiving payment from the City unless Contractor notifies the Director of the CMD in writing prior to receiving payment from the City that there is a bona fide dispute between Contractor and the subcontractor. The Director of the CMD may, upon making a determination that a bona fide dispute exists between Contractor and the subcontractor, waive this 3-day payment requirement.

12. Contractor shall file within 10 working days after receiving payment from the City an affidavit, under penalty of perjury, stating that Contractor has paid its subcontractors and providing the names and addresses of its subcontractors and the amount paid to each. Refer to Form 9 (CMD9).

1.06 NON-DISCRIMINATION

A. Comply with the nondiscrimination provisions as set forth in CMD Attachment 1.

END OF SECTION

SECTION 00 63 30

ESCROW AGREEMENT FOR SECURITY DEPOSITS IN LIEU OF RETENTION

This Escrow Agreement is made and entered into by and between the CITY AND COUNTY OF SAN FRANCISCO, STATE OF CALIFORNIA, whose address is 525 Golden Gate Avenue, 8th Floor, San Francisco, California 94102, hereinafter called "City" and,

_____

whose address is _____

_____, hereinafter called "Contractor"

and _____

whose address is _____, hereinafter called "Escrow Agent."

For the consideration hereinafter set forth, the City, Contractor, and Escrow Agent agree as follows:

1. Pursuant to section 22300 of the California Public Contract Code, Contractor has the option to deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by the City pursuant to the construction contract entered into between the City and Contractor for Sample PUC Contract, Contract No. WW-XYZ in the amount of _____ dated _____ (hereinafter referred to as the "Contract"). Alternatively, on written request of Contractor, the City shall make payments of the retention earnings directly to Escrow Agent. When Contractor deposits the securities as a substitute for Contract earnings, Escrow Agent shall notify the City within 10 days of the deposit. The market value of the securities at the time of substitution shall be equal to the cash amount then required to be withheld as retention under the terms of the Contract between the City and Contractor. Securities shall be held in the name of CITY AND COUNTY OF SAN FRANCISCO, STATE OF CALIFORNIA, and shall designate Contractor as the beneficial owner.

2. The Escrow Agent must have a minimum investment grade rating of Baa3 (Moody's), BBB- (S&P), or BBB- (Fitch).

3. The City shall make progress payments to Contractor for such funds which otherwise would be withheld from progress payments pursuant to the Contract provisions, provided that Escrow Agent holds securities in the form and amount specified above.

4. When the City makes payment of retentions earned directly to Escrow Agent, Escrow Agent shall hold them for the benefit of Contractor until such time as the escrow created under this Contract is terminated. Contractor may direct the investment of the payments into securities. All terms and conditions of this Escrow Agreement and the rights and responsibilities of the parties shall be equally applicable and binding when the City pays Escrow Agent directly.

5. Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering the Escrow Account and all expenses of the City. These expenses and payment terms shall be determined by the City, Contractor, and Escrow Agent.

6. The interest earned on the securities or the money market accounts held in escrow and all interest earned on that interest shall be for the sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to the City.

7. Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from the City to Escrow Agent that the City consents to the withdrawal of the amount sought to be withdrawn by Contractor.

8. The City shall have the right to draw upon the securities in the event of default by Contractor. Upon seven days' written notice to Escrow Agent from the City of the default, Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by the City.

9. Upon receipt of written notification from both City Representatives listed in section 11 certifying that the Contract is final and complete, and that Contractor has complied with all requirements and procedures applicable to the Contract, Escrow Agent shall release to Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all moneys and securities on deposit and payments of fees and charges.

10. Escrow Agent shall rely on the written notifications from the City and Contractor pursuant to sections 1 to 9, inclusive, of this Escrow Agreement, and the City and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of the securities and interest as set forth above.

11. The persons authorized to give written notice or to receive written notice on behalf of the City and on behalf of Contractor in connection with the foregoing are as follows:

    a. On behalf of the City:

(Signature)	(Title)
(Name)	(Address)

and:

(Signature)	(Title)
(Name)	(Address)

    b. On behalf of Contractor:

(Signature)	(Title)
(Name)	(Address)

c. On behalf of Escrow Agent:

(Signature)	(Title)
(Name)	(Address)

At the time the Escrow Account is opened, the City and Contractor shall deliver to Escrow Agent a fully executed counterpart of this Escrow Agreement.

IN WITNESS WHEREOF, the parties have executed this Escrow Agreement by their proper officers on the date first set forth above.

CITY AND COUNTY OF
SAN FRANCISCO:

By: _____
Nancy Hom
AGM Business Services/Chief Financial Officer

Approved as to form:
David Chiu
City Attorney

By: _____
Deputy City Attorney

ESCROW AGENT:

_____
(Signature)

_____
(Name)

_____
(Title)

CONTRACTOR:

_____
(Signature)

_____
(Name)

_____
(Title)

Note: Contractor shall submit 3 original executed copies of this section to the City.

END OF SECTION

SECTION 00 64 00

CMD CONTRACT FORMS

This Section includes the following CMD Contract forms. Submit these forms as specified in Section 00 62 20:

1. FORM 7: CMD Progress Payment Form (CMD7).
2. FORM 8: CMD Exit Report and Affidavit (CMD8).
3. FORM 9: CMD Payment Affidavit (CMD9).
4. FORM 10: CMD Contract Modification Form (CMD10).

END OF SECTION

FORM 7: CMD PROGRESS PAYMENT FORM

To be submitted electronically using the Contract Awarding Authority's City approved system.

To be entered by Prime Contractor and submitted to the Contract Awarding Authority and CMD with its monthly progress payment application (transmit to the following):

TO: Resident Engineer or Inspector COPY: CMD Contract Compliance Officer

FROM: _____ Date: _____

SECTION 1. Fill in all the blanks

Contract Number: _____ Contract Name: _____

Reporting Period From: _____ To: _____ Progress Payment No: _____

The information submitted on Sections 1 and 2 of this form must be cumulative for the entire Contract as opposed to individual task orders. Additionally, the information submitted on Sections 1 and 2 of this form must be consistent. See next page for Section 2.

1. Original Contract Award Amount: $ _____
2. Amount of Change Orders, Amendments, and Modifications to Date: $ _____
3. Total Contract to Date *(Line 1 + Line 2)*: $ _____
4. Gross Amount Invoiced this submittal period: $ _____
5. All Previous Gross Amounts Invoiced: $ _____
6. Total Gross Amounts of Progress Payments Invoiced to Date *(Line 4 + Line 5)*: $ _____
7. Percent Complete *(Line 6 ÷ Line 3)*: % _____

Prime Contractor must sign this form

_____
Owner/Authorized Representative (Signature)

_____
Name and Title (Print)

_____
Firm Name

_____
Telephone Email

_____
Date

SECTION 2. **For column "A", list the Prime Contractor, each Joint Venture partner and ALL subcontractors, vendors, and suppliers including** 2nd, 3rd, 4th, and 5th tier subcontractors. Make copies if more space is needed. Prime Contractors must retain copies of all the prime and subcontractor invoices supporting the information tabulated for this progress payment. CMD reserves the right to request and review this information up to five (5) years following project completion and, upon request, Prime Contractor shall submit the requested information to CMD within 10 business days.

Notes: *1.* Failure to submit all required information may lead to partial withholding of progress payment. (See Chapter 14B)
2. All firms must be CONTINUOUSLY listed on column "A" regardless if a firm is requesting

payment. Identify the LBE sub participation requirement(s) for this Contract:

Identify the LBE sub commitment(s) for this Contract:

A	B	C	D	E	F	G	H
Name of Firm List Prime Contractor/JV partners at the prime and sub levels, and all subs, vendors and suppliers for all tiers. (For each firm, indicate if it is an LBE.)	Service Performed	Amount of Contract or Purchase Order at Time of Award	Amount of Change Orders/Modifications to Date	Total Amount of Contract or Purchase Order to Date +/– Change Orders/Modifications (C + D) or (C–D)	Amount Invoiced this Reporting Period	Amount Invoiced to Date, including Amount Invoiced this Reporting Period (F)	Percent Completed to Date (G÷E)
							%
							%
							%
							%
							%
							%
LBE Sub-Totals							%
CONTRACT TOTALS							%

FORM 8: CMD EXIT REPORT AND AFFIDAVIT

Prime Contractor must complete and sign Sections 1 and 4 of this form for each LBE subcontractor/supplier/trucker (including each lower-tier LBE). All LBEs must complete and sign Sections 2 and 3 of this form. Please be sure to keep a copy of your outreach/delivery efforts (e.g., email, USPS certified mail, etc.) to the LBE sub(s). These forms should be submitted to the Contract Awarding Authority and CMD with the final progress payment request if the Contract has an LBE sub participation requirement.

TO: Resident Engineer Inspector COPY: CMD Contract Compliance Officer

FROM (Contractor): _____ Date Transmitted: _____

SECTION 1.

☐ Please check this box if there are no LBE subcontractors/suppliers for this Contract.

☐ Please check this box if the LBE sub fails to complete and sign this form within 5 business days (see Section 3).

Reporting Date: _____ Contract Name: _____

Name of LBE: _____ Portion of Work (Trade): _____

Original LBE Contract Amount: $ _____

Change Orders, Amendments, Modifications: $ _____

Final LBE Contract Amount: $ _____

Amount of Progress Payments Paid to Date: $ _____

Amount Owing including all Change Orders, Amendments and Modifications $ _____

Explanation by Prime Contractor if the final contract amount for this LBE is less than the original contract amount:

SECTION 2. Please check one:

☐ I did NOT subcontract out ANY portion of our work to another subcontractor.

☐ I DID subcontract out our work to:

Name of Firm: _____ Amount Subcontracted: $ _____

Name of Firm: _____ Amount Subcontracted: $ _____

SECTION 3.

To be completed/signed by the LBE subcontractor/supplier/trucker:

☐ I agree with the above completed Section 1.

☐ I disagree with the above completed Section 1.

If "I disagree" is checked above, please explain. LBE sub must address any discrepancies within 5 business days after it has received this form from the Prime Contractor. If the LBE sub fails to submit the form within 5 business days, the Prime Contractor will note this under Section 1 of this form and submit the form as is with the final progress payment.

_____ _____

Owner/Authorized Representative (Signature) Name and Title (Print)

_____ _____

Firm Name Telephone Email Date

SECTION 4.

If this form is submitted without the L**BE's signature, the Prime Contractor must enclose verification of delivery of this form to** the LBE.

I declare, under penalty of perjury under the laws of the State of California, that the information contained in Section 1 of this form is complete, that the tabulated amounts paid to date are accurate and correct, and that the tabulated amounts owing will **be paid within three (3) days after receipt of the City's final payment under the Contract.**

_____
Owner/Authorized Representative (Signature)

_____
Name and Title (Print)

_____
Firm Name

_____
Telephone Email Date

FORM 9: CMD PAYMENT AFFIDAVIT

To be submitted electronically using the Contract Awarding Authority's City approved system.

TO: Resident Engineer or Inspector COPY: CMD Contract Compliance Officer

FROM: _____ Date: _____

List the following information for each progress payment received from the Contracting Awarding Authority. Use additional sheets to include complete payment information for all LBE subs, suppliers, and vendors (including lower tiers) utilized on this Contract. Failure to submit all required information may lead to partial withholding of progress payment or final payment.

Contract Number: _____ Contract Name: _____

Contract Awarding Department: _____

Progress Payment No.: _____ Period Ending: _____

Amount Received: $_____ Date: _____ Warrant/Check No.: _____

☐ Check box and sign below if there is no sub payment for this reporting period.

Sub/Supplier/Vendor Name	Business Address	Amount Paid	Payment Date	Check Number/ Electronic Transfer Number

I declare, under penalty of perjury under the laws of the State of California, that the above information is complete and that the tabulated amounts paid to date are accurate and correct. Prime Contractor must sign this form.

_____
Owner/Authorized Representative (Signature)

_____
Name and Title (Print)

_____
Firm Name

_____
Telephone Email

_____
Date

FORM 10: CMD CONTRACT MODIFICATION FORM

Prime Contractor must submit this form with the required supporting documentation and obtain prior CMD approval when processing amendments, modifications or change orders that cumulatively increase the original contract amount by more than 20% and then for all subsequent amendments, modifications or change orders that cumulatively increase the last CMD approved value by 20%. This form must be completed prior to the approval of such amendments, modifications or change orders.

Name of Project/Contract Title: _____

Original Contract Amount: _____

Total Contract Amount as Modified to Date: _____

Amount of Current Modification Request: _____

New Total Contract Amount after Current Modification Request: _____

REQUIRED INFORMATION:

1. A list of all prior contract amendments, modifications, supplements, and/or change orders leading up to this modification, including those leading up to the amendment which increased the original contract amount by more than 20%. Please list below.

Modification/ Amendment Number	Amount of Modification/ Amendment (If Applicable)	Brief Description of Services/Work

2. A spreadsheet showing each firm's participation for the overall Contract, including each firm's participation to date and proposed participation under the modification.

PROPOSED CONTRACT VALUE WITH NEW MODIFICATION/AMENDMENT

	LBE Commitment(s) at the Time of Bid	LBE Participa-tion To-Date	Projected LBE Commitment(s) Including This Mod/Amend
Micro and Small-LBE	%	%	%
Micro, Small, and SBA-LBE	%	%	%
Micro-LBE	%	%	%
Small-LBE	%	%	%
SBA-LBE	%	%	%
TOTALS	%	%	%

Firm Name	Commitment Made at Time of Bid/Proposal	Dollar Invoiced To-Date	Invoiced % To-Date	Projected Overall Dollar Amount with This Mod/Amend	Projected Overall % with This Mod/Amend
	%	$	%	$	%
	%	$	%	$	%
	%	$	%	$	%
	%	$	%	$	%
	%	$	%	$	%
	%	$	%	$	%
	%	$	%	$	%
	%	$	%	$	%
	%	$	%	$	%
	%	$	%	$	%
LBE TOTALS:	%	$	%	$	%
TOTALS:	%	$	%	$	%

3. A brief description of the work to be performed under this amendment, modification, or change order.

4. For any listed LBE that is currently under its commitment or is not projected to meet its committed percentage of overall work, please provide an explanation as to why this is the case.

LBE Firms Falling Short of Commitment or Not Projected to Meet Their Committed Percentage of Work:	Reason

_____
Owner/Authorized Representative (Signature)

_____
Name and Title (Print)

_____
Firm Name

_____
Telephone Email Date

SECTION 00 72 00

GENERAL CONDITIONS

TABLE OF CONTENTS

Article or Paragraph Number & Title — Page

ARTICLE 1 - GENERAL 1
1.01 DEFINITIONS 1
1.02 CONTRACT DOCUMENTS AND CONTRACTING REQUIREMENTS 9
1.03 MEANING AND INTENT OF CONTRACT DOCUMENTS 9
1.04 AMENDMENT OF CONTRACT DOCUMENTS 11
1.05 RESOLUTION OF CONFLICTING TERMS; PRECEDENCE OF CONTRACT DOCUMENTS 11
1.06 REUSE OF CONTRACT DOCUMENTS 12

ARTICLE 2 - CITY'S RESPONSIBILITIES AND RIGHTS 12
2.01 ADMINISTRATION OF THE CONTRACT 12
2.02 INFORMATION AND SERVICES 12
2.03 RIGHT TO STOP THE WORK; CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH CONTRACT 13
2.04 RIGHT TO CARRY OUT THE WORK 14
2.05 EXAMINATION OF RECORDS; AUDIT 14
2.06 NO WAIVER OF RIGHTS 15
2.07 CITY NOT LIABLE FOR CONSEQUENTIAL DAMAGES 15
2.08 RIGHT TO CHANGE, SUSPEND OR DELAY THE WORK 15

ARTICLE 3 - CONTRACTOR'S RESPONSIBILITIES 16
3.01 GENERAL CONSTRUCTION RESPONSIBILITIES 16
3.02 REVIEW OF CONTRACT DOCUMENTS AND SITE CONDITIONS 16
3.03 SUPERVISION OF THE WORK 17
3.04 DIFFERING SITE CONDITIONS 19
3.05 PROJECT MANAGER AND OTHER KEY TEAM MEMBERS 20
3.06 LABOR, MATERIALS AND EQUIPMENT 21
3.07 PERMITS, FEES, AND NOTICES 21
3.08 RECORD DOCUMENTS 23
3.09 CONTRACTOR'S DAILY REPORT 23
3.10 PROGRESS AND SUBMITTAL SCHEDULES 23
3.11 SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES 25
3.12 SUBSTITUTIONS 26
3.13 USE OF SITE 26
3.14 ACCESS TO WORK 27
3.15 CUTTING AND PATCHING 27
3.16 CLEANING UP AND REMOVING DEBRIS 27
3.17 INTELLECTUAL PROPERTY; ROYALTIES AND INDEMNIFICATION 28
3.18 WARRANTY 29
3.19 TAXES 29
3.20 INDEMNIFICATION 29
3.21 COMPLIANCE WITH LAWS; INDEMNIFICATION 31

3.22 LIABILITY OF CONTRACTOR – CONSEQUENTIAL DAMAGES 32

ARTICLE 4 - SUBCONTRACTORS 33
4.01 SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK 33
4.02 SUBCONTRACTUAL RELATIONS 33
4.03 ASSIGNABILITY OF SUBCONTRACTS 34
4.04 SUCCESSORS AND ASSIGNS 34

ARTICLE 5 - CONSTRUCTION BY CITY OR BY SEPARATE CONTRACTORS 34
5.01 CITY'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS 34
5.02 COORDINATION 35
5.03 CLEAN UP RESPONSIBILITIES 36

ARTICLE 6 - CLARIFICATIONS AND CHANGES IN THE WORK 37
6.01 GENERALLY 37
6.02 REQUESTS FOR INFORMATION, CLARIFICATIONS, AND FIELD ORDERS 37
6.03 CHANGE ORDER REQUESTS AND PROPOSED CHANGE ORDERS 38
6.04 CHANGE ORDERS 39
6.05 UNILATERAL CHANGE ORDERS 40
6.06 COST OF CHANGE ORDER WORK 41
6.07 FORCE ACCOUNT WORK 46
6.08 UNIT PRICE WORK 47

ARTICLE 7 - TIME 48
7.01 PROGRESS AND COMPLETION 48
7.02 DELAYS AND EXTENSIONS OF TIME 50
7.03 ADJUSTMENTS TO THE CONTRACT SUM FOR COMPENSABLE DELAY/COMPENSABLE TIME EXTENSION 55
7.04 LIQUIDATED DAMAGES 57

ARTICLE 8 - INSPECTION AND CORRECTION OF WORK 58
8.01 UNCOVERING OF WORK 58
8.02 TESTS AND INSPECTIONS 59
8.03 CORRECTION OF NON-CONFORMING WORK AND GUARANTEE TO REPAIR PERIOD 60
8.04 ACCEPTANCE OF NON-CONFORMING WORK 62

ARTICLE 9 - PAYMENTS AND COMPLETION 62
9.01 CONTRACT SUM 62
9.02 SCHEDULE OF VALUES FOR LUMP SUM WORK 62
9.03 PROGRESS PAYMENTS 63
9.04 RETENTION 66
9.05 PAYMENT AUTHORIZATION 67
9.06 WITHHOLDING PAYMENT 67
9.07 PARTIAL UTILIZATION 68
9.08 SUBSTANTIAL COMPLETION 69
9.09 FINAL COMPLETION AND FINAL PAYMENT 69
9.10 PAYMENT FOR UNDELIVERED LONG LEAD ITEMS; PAYMENT FOR ITEMS DELIVERED AND STORED ON OR OFF THE SITE 70

ARTICLE 10 - INSURANCE AND BONDS 73
10.01 INSURANCE REQUIREMENTS 73
10.02 PERFORMANCE BOND AND PAYMENT BOND 73

ARTICLE 11 - LABOR STANDARDS 73
11.01 PREVAILING WAGES 73
11.02 PAYROLLS 75
11.03 APPRENTICES 76
11.04 LABOR STANDARDS ENFORCEMENT 76

ARTICLE 12 - SAFETY 77
12.01 PRECAUTIONS AND PROGRAMS 77
12.02 PERSONS AND PROPERTY 78
12.03 SAFETY PERMITS 80
12.04 EMERGENCIES 80

ARTICLE 13 - CONTRACT AND GOVERNMENT CODE CLAIMS 80
13.01 CLAIMS GENERALLY 80
13.02 NOTICE OF POTENTIAL CLAIM 81
13.03 CONTRACT CLAIM 82
13.04 GOVERNMENT CODE CLAIM 85

ARTICLE 14 - TERMINATION OR SUSPENSION OF THE CONTRACT 85
14.01 NOTICE OF DEFAULT; TERMINATION BY THE CITY FOR CAUSE 85
14.02 SUSPENSION BY THE CITY FOR CONVENIENCE 87
14.03 TERMINATION BY THE CITY FOR CONVENIENCE 87

ARTICLE 15 - MISCELLANEOUS PROVISIONS 90
15.01 GOVERNING LAW AND VENUE 90
15.02 RIGHTS AND REMEDIES 90
15.03 COMPLETE AGREEMENT 90
15.04 SEVERABILITY OF PROVISIONS 90

END OF TABLE OF CONTENTS

GENERAL CONDITIONS

ARTICLE 1 - GENERAL

1.01 DEFINITIONS

A. Wherever the Contract Documents (as defined in Paragraph 1.02) use a word or phrase defined below, or a pronoun in place thereof, it shall have the meaning set forth in this Paragraph 1.01. References to related Paragraphs or Documents are provided for convenience but not to exclude other Paragraphs or Documents where such terms may be used. The colon (":") is employed in this Paragraph as a symbol for "shall mean." A colon also may be employed in these General Conditions or elsewhere in the Contract Documents to set off a paragraph title or heading from the text that follows or as a punctuation mark in a sentence to direct attention to the matter that follows.

1. **Accepted, Approved**: Accepted or approved, or satisfactory for the Work, as determined in writing by the City, unless otherwise specified. Where used in conjunction with the City's response to submittals, requests, applications, inquiries, Bids, proposals and reports by Contractor, the term "approved" shall be held to limitations of the City's responsibilities and duties as specified in these General Conditions. The City's approval shall not be interpreted as a release of Contractor from its responsibilities to fulfill the requirements of the Contract Documents or a waiver of the City's right under the Contract.

2. **Addenda**: Written or graphic information issued by the City prior to the receipt of Bids, which modifies or interprets the Bid Documents by additions, deletions, or other changes. Refer to Section 00 21 13 (Instructions to Bidders).

3. **Advertisement for Bid**: A set of documents that includes, without limitation, the published advertisement for Bids on a Contract; the forms to be submitted with a Bid as required by the City; the construction contract general and special conditions; and, the drawings and specifications for the Work.

4. **Agreement**: The Agreement or Contract between the City and Contractor covering the Work to be performed; other Contract Documents are attached to the Agreement and made part thereof as provided herein. The Contract is fully executed upon certification by the Controller of the City and County of San Francisco as to the availability of construction funds. Refer to Section 00 52 00 (Agreement Form).

5. **Alternate Bid Item**: A Bid item that may be added to or deducted from the Total Bid Price to meet Project construction budget requirements.

6. **Application for Payment**: Written request submitted by Contractor to City for payment of Work completed in accordance with the Contract Documents and approved schedule of values. Refer to Article 9, Payments and Completion.

7. **Approved Equal**: Approved in writing by the City as being of equivalent quality, utility and appearance. Equivalent means equality in the opinion of the City Representative. The burden of establishing proof of equality is the responsibility of Contractor. Refer to Division 01 for procedures for proposing substitutions.

8. **Available Project Information**: Refer to Section 00 21 13 (Instructions to Bidders) and Section 00 31 00 (Available Project Information) for identification of Available Project Information, if any, provided by the City. Available Project Information is for informational purposes only and not part of the Contract Documents.

9. **Bid:** A complete and properly executed offer, submitted in accordance with the Bidding requirements, to provide products and services and to perform the Work in accordance with the requirements of the Contract Documents. Refer to Section 00 21 13 (Instructions to Bidders).

10. **Bid Documents**: Documents consist of the Advertisement for Bids, Instructions to Bidders, the Bid and all accompanying Bid forms, Bid security or bond, Contract Monitoring Division requirements, the Drawings, the Project Manual, and all Addenda issued prior to receipt of Bids. Refer to Section 00 21 13 (Instructions to Bidders).

11. **Bidding Requirements**: Information conveyed in the Sections listed in Section 00 01 10 (Table of Contents) under the heading "Bidding Requirements."

12. **Bonds**: Bid security, performance and payment (labor and materials) bonds and other instruments of security acceptable to the City. Refer to Paragraph 10.02, Performance Bond and Payment Bond, and Sections 00 43 13, 00 61 13, and 00 61 13/R for Bond forms.

13. **Bulletin**: Refer to "Field Order."

14. **By Others**: Work that is outside the scope of Work to be performed by Contractor under this Contract that will be performed by the City, other contractors, or by other means or at another's expense.

15. **Change Order**: A written instrument prepared by the City issued after the Effective Date of the Agreement and executed in writing by the City and Contractor, stating their agreement upon all of the following: (i) a change in the Work; (ii) the amount of the adjustment in the Contract Sum, if any; (iii) the extent of the adjustment in the Contract Time, if any; and (iv) an amendment to any other Contract terms or conditions. Refer to Article 6, Clarifications and Changes in the Work.

16. **Change Order Request ("COR")**: Refer to Paragraph 6.03, Change Order Requests and Proposed Change Orders.

17. **City**: The City and County of San Francisco, California, identified as such in the Agreement and referred to throughout the Contract Documents as if singular in number. The term "Owner" means the City and its authorized agent or representative.

18. **City Representative**: The authorized on-Site representative of the City, identified by the City in writing, who will act as the City's representative with respect to Contractor's performance of the on-Site inspection and administration of the Contract. Contractor shall interact with the City by and through the City Representative. City Representative shall also mean any person designated in writing by the City Representative as having the authority to act as a designee on behalf of the City Representative.

19. **Claim**: A written demand or assertion by Contractor seeking an adjustment of the terms of the Contract Documents, an adjustment in the Contract Sum or Contract Time, or

both, or other relief with respect to the Contract Documents, including a determination of disputes between the City and the Contractor arising out of or related to the Contract Documents for the performance of the Work, which the Contractor may submit in accordance with the requirements of the Contract Documents. Refer to Article 13.

20. **Clarification**: A document consisting of supplementary details, instructions or information issued by the City that clarifies or supplements the Contract Documents. Clarifications do not constitute a change in Contract Work or Contract Sum or an extension of Contract Times unless requested by Contractor and approved by the City in accordance with the Contract Documents. Refer to Article 6, Clarifications and Changes in the Work.
21. **Code**: The latest editions of the San Francisco Municipal Code, as well as any State of California, Federal, or local law, statute, ordinance, rule, or regulation having jurisdiction or application to the Project.
22. **Commission**: Refers to the San Francisco Public Utilities Commission. Refer to Section 00 52 00 (Agreement Form).
23. **Commissioning**: A systematic quality assurance process including functional, performance, pre-start-up, and start-up tests for facilities, systems, and assemblies to ensure they meet the requirements as set forth in Section 01 75 60 (Testing Coordination And Start-Up Testing).
24. **Commissioning Agent**: Refer to "Testing Coordinator" in Section 01 75 60 (Testing Coordination And Start-Up Testing).
25. **Commissioning Plan**: The test procedures and start-up plan set forth in Section 01 75 60 (Testing Coordination And Start-Up Testing).
26. **Contract**: Refer to "Contract Documents."
27. **Contract Documents**: Refer to Paragraph 1.02, Contract Documents and Contracting Requirements.
28. **Contract Sum**: The sum stated in the Agreement and, including City-approved adjustments, the total amount payable by the City to Contractor for the performance of the Work under the Contract Documents. Refer to Section 00 52 00 (Agreement Form).
29. **Contract Time(s)**: The number of consecutive days as stated in Section 00 73 02 (Contract Time and Liquidated Damages) from the start date specified in the Notice to Proceed to: (i) achieve Substantial Completion for all listed Work; (ii) complete the Work so that it is ready for final acceptance as evidenced by the City's issuance of written acceptance as required by section 6.22(k) of the Administrative Code; and (iii) achieve any interim Milestones specified in the Contract Documents.
30. **Contracting Requirements**: The Contracting Requirements establish the rights and responsibilities of the parties and include these General Conditions (Section 00 72 00) and the Sections as listed under Contracting Requirements in the Table of Contents (Section 00 01 10).
31. **Contractor**: The person or entity with whom the City has executed the Agreement and identified as such therein and referred to throughout the Contract Documents as if

singular in number and neuter in gender. The term "Contractor" means Contractor or its authorized representative.

32. **Critical Path**: A continuous chain of activities with zero float running from the start event to the finish event in the schedule.
33. **Critical Path Method ("CPM")**: Refers to the critical path method scheduling technique. Refer to Section 01 32 16 (Construction Progress Schedule).
34. **Day**: Reference to "day" shall be construed to mean a calendar day of 24 hours, unless otherwise specified.
35. **Default**: Refer to Paragraph 14.01, Notice of Default; Termination of Contractor by the City for Cause.
36. **Delivery**: In reference to an item specified or indicated shall mean for the Contractor and/or Supplier to have delivered and to unload and store with proper protection at the Site. Refer to Paragraph 9.03, Progress Payments, for delivery to another (off-Site) location.
37. **Department Head**: The contracting officer for the Contract, i.e., the General Manager of the San Francisco Public Utilities Commission or designee, acting directly or through properly authorized representatives, agents, and consultants, limited by the particular duties entrusted to them. Refer to Section 00 52 00 (Agreement Form).
38. **Designated, Determined, Directed**: Required by the City, unless otherwise specified. Refer to Paragraph 2.01, Administration of the Contract.
39. **Differing Site Conditions**: Refer to Paragraph 3.04, Differing Site Conditions.
40. **Division**: A grouping of sections of the Specifications describing related construction products and activities. Refer to Section 00 01 10 (Table of Contents) for a listing of Division and section numbers and titles.
41. **Drawings**: The graphic and pictorial portions of the Contract Documents showing the design, location, and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.
42. **Effective Date of the Agreement**: The date indicated in the Agreement on which it was executed, but if no such date is indicated it shall mean the date on which the Agreement is signed by the last of the two parties to sign, or when the Controller of the City and County of San Francisco certifies the availability of funds, whichever is later.
43. **Field Order**: A written order issued by an authorized City Representative that provides instructions or requires minor changes in the Work but does not involve a change in the Contract Sum or the Contract Time. Refer to Paragraph 6.02, Requests for Information, Clarifications and Field Orders.
44. **Final Completion**: The date of written acceptance of the Work by the City, issued in accordance with section 6.22(k) of the Administrative Code, when the Contract Work has been fully and satisfactorily completed in accordance with the Contract Documents.
45. **Force Account Work**: Change Order Work that the City authorizes and will pay for on the basis of direct costs plus markup on direct costs for overhead and profit as provided in Paragraph 6.07, Force Account Work.

46. **Furnish**: Purchase and deliver to the Site, including proper storage only; does not include installation. The term "Furnish" also means to Supply and Deliver to the Site.
47. **General Requirements**: The General Requirements include all Documents in Division 01, which govern the Contractor's performance of the Work set forth in all sections of the Specifications.
48. **Guarantee to Repair Period**: The period specified in Paragraph 8.03 or Section 01 78 36 (Warranties) during which Contractor must correct Non-conforming Work.
49. **Indicated**: Shown or noted on the Drawings or written in the Specifications.
50. **Install**: Apply, connect, or erect items for incorporation into the Project; does not include Furnishing or Supplying. The term "Install" also describes operations at the Site, including unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
51. **Installer**: A person engaged by Contractor, its Subcontractor, or its Lower-Tier Subcontractor for performance of a particular element of construction at the Site, including installation, erection, application, and similar required operations.
52. **Item**: A separate, distinct portion of the whole Work, which may comprise material, equipment, article, or process.
53. **Key Team Members**: The essential personnel on Contractor's team identified in any prequalification or bid submission documents, subject to the City's approval prior to the start of each phase of Work. Contractor and its Subcontractors agree not to transfer or remove said individuals from the Project without the prior written permission or direction of the City, which City will not unreasonably withhold.
54. **Lower-Tier Subcontractor or Supplier**: An entity or person that has a direct contract with a Subcontractor or Supplier, or with another Lower-Tier Subcontractor or Supplier, to perform a portion of the Work at the Site or to furnish materials or equipment to be incorporated in the Work by Contractor, Subcontractor, or Lower-Tier Subcontractor, as applicable.
55. **Milestone:** A principal date or time specified in the Contract Documents relating to an intermediate event prior to Substantial Completion.
56. **Modification**: A document incorporating one or more Change Orders or a written instrument modifying the Agreement, which has been executed and approved in the same manner as the Agreement in compliance with the Certification by Controller requirements of the City's Charter as stated in Section 00 52 00 (Agreement Form) and all requirements set forth in Chapter 6 of the Administrative Code.
57. **Non-conforming Work**: Work that is unsatisfactory, faulty, defective, omitted, incomplete, or deficient; Work that does not conform to the requirements of the Contract Documents; Work that does not meet the requirements of inspection, reference standards, tests, or approval referenced in the Contract Documents; or Work that Contractor's operations has damaged or disturbed prior to Final Completion.
58. **Notice of Default**: Refer to Paragraph 14.01, Notice of Default; notice by City to Contractor in advance of City's potential Termination of Contractor for Cause.

59. **Notice of Potential Claim**: Refer to Paragraph 13.02, Notice of Potential Claim.
60. **Notice of Substantial Completion**: The written notice issued by the City to Contractor documenting City's determination that the Work is Substantially Complete. Said Notice shall not be considered to indicate the City's final acceptance of any portion of the Work or relieve Contractor from completing the punch list items attached to said Notice within the specified time and in full compliance with the Contract Documents.
61. **Notice to Proceed or "NTP"**: The written notice issued by the City to Contractor authorizing Contractor to proceed with the Work and establishing the date of commencement of the Contract Time. The Contract Documents may specify more than one NTP applicable to different phases and/or portions of the Work.
62. **Owner**: Refer to "City."
63. **Paragraph**: A paragraph of these General Conditions. Refer to "General Conditions–Table of Contents" for a listing of Article and Paragraph numbers and titles.
64. **Partial Utilization**: Right of the City to use a portion of the Work prior to Substantial Completion of the Work.
65. **Project**: Refer to "Work."
66. **Project Manual**: The bound written portion of the Contract Documents prepared for the Bid and Contractor's construction of the Work. A listing of the contents of the Project Manual, which consists of the Documents and Specification sections and may include schedules, is contained in the Section 00 01 10 (Table of Contents).
67. **Proposed Change Order ("PCO")**: A document prepared by the City requesting a cost and time quotation from Contractor for additions, deletions or revisions in the construction Work.
68. **Provide**: Furnish and Install or Supply and Install complete in place at the Site.
69. **Punch List / Final Completion**: A list prepared by the City at Substantial Completion identifying deficient Work Items that the Contractor must correct in order to achieve Final Completion. Refer to Paragraph 9.09, Final Completion and Final Payment.
70. **Punch List / Substantial Completion**: The list provided by the City identifying incomplete or defective Work Items that Contractor must correct or complete to achieve Substantial Completion. Refer to Paragraph 9.08, Substantial Completion.
71. **Quality Assurance ("QA")**: All those planned and systematic actions by Contractor necessary to provide the City with confidence that Contractor has conducted a Quality Control Program and has implemented Quality Control.
72. **Quality Control ("QC")**: Those actions that control and measure the characteristics of an item, process, or facility against established requirements to ensure that a product or service will satisfy given requirements for quality. Contractor and Subcontractors must perform QC.
73. **Reference Documents**: Refer to "Available Project Information."
74. **Regular Working Hours**: 7:00 a.m. to 5:00 p.m., Monday through Friday, except City legal holidays.

75. **Request for Information ("RFI")**: A document submitted by Contractor requesting information from the City about the Project or the Contract Documents.
76. **Request for Product Substitution ("RFPS")**: A request from Contractor in accordance with the conditions specified in Section 01 25 13 (Product Substitution Procedures) to substitute a material, product, thing, or service specified in the Contract Documents with an equal material, product, thing, or service. Refer to Paragraph 3.12, Substitutions, and Section 00 49 18 (Request for Product Substitution).
77. **Required**: Mandatory.
78. **Resident Engineer**: See "City Representative."
79. **Samples**: Physical examples of materials, equipment, or workmanship submitted or provided by Contractor for the City's adjudication of their compliance with the specifications.
80. **Shop Drawings**: All drawings, diagrams, illustrations, schedules and other data or information prepared or assembled by or for Contractor and submitted to City.
81. **Site**: Geographical location of the Project as indicated elsewhere in the Contract Documents.
82. **Special Provisions**: The part of the Contract Documents that amends, modifies, or supplements these General Conditions. The Special Provisions include the 00 73 00-series Sections as listed in Section 00 01 10 (Table of Contents).
83. **Specifications**: The portion of the Project Manual comprising Division 00 through Division 48 and listed in Section 00 01 10 (Table of Contents), consisting of requirements and technical descriptions of materials, equipment, systems, standards, and workmanship for the Work, and performance of related administrative services.
84. **Specified**: Written or indicated in the Contract Documents.
85. **Subcontractor**: An entity or person that has a direct contract with Contractor to perform a portion of the Work. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and neuter in gender and means a Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a separate contractor or subcontractors of a separate contractor. The term "Subcontractor" shall also include contracts assigned to Contractor if so provided in the Supplementary Conditions or specified in the General Requirements (Division 01). Unless a Contract Document expressly states to the contrary, the term "Subcontractor" includes an entity or person that has a direct contract with Contractor to provide professional services in connection with the Work such as (but not limited to) engineering services, design professional services, and/or construction administration services.
86. **Submittal**: A written or graphic document prepared by Contractor that the Contract Documents require the Contractor to submit to the City. Submittals may include, but are not limited to, progress and submittal schedules, BIM information, shop drawings, product data, samples, design calculations, design data, test reports, and certificates. Submittals other than Drawings or Specifications are not Contract Documents.

87. **Substantial Completion**: The stage in the progress of the Work when the Work (or a specified part thereof) is sufficiently complete in accordance with the Contract Documents including receipt of a temporary certificate of occupancy, if applicable, or use authorization issued by the agency or agencies having jurisdiction over the Work so that the City can utilize the Work (or a specified part thereof) for the purposes for which it is intended. "Agency" shall include San Francisco Department of Building Inspection for green tagging of electrical power (if applicable) and Pacific Gas and Electric Company (PG&E) or SFPUC's Power Enterprise for provision of all necessary power.

88. **Supplementary Conditions**: The portion of the Contract Documents that amends, deletes or modifies these General Conditions. The Supplementary Conditions are set forth in Section 00 73 00.

89. **Supplier**: A manufacturer, fabricator, distributor, or vendor having a direct contract with Contractor or with a Subcontractor to furnish materials or equipment to be incorporated in the Work.

90. **Supplier Quality Surveillance ("SQS")**: Ongoing monitoring and verification of the status of conditions, methods, procedures, and products, and analysis of associated records to ensure that the established requirements are being complied with.

91. **Supply**: Refer to "Furnish."

92. **Total Bid Price**: The sum stated in the Bid for which the Bidder offers to perform the Work described in the Bid Documents. The Total Bid Price shall include the entire cost of all Work necessary for a complete and fully operational structure or facility in accordance with the requirements of the Contract Documents. Refer to Section 00 21 13 (Instructions to Bidders).

93. **Testing Agencies**: An independent entity engaged by the City or Contractor, as specified in the Contract Documents, to perform specific inspections or tests, either at the Site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.

94. **Unavoidable Delay**: Refer to Paragraph 7.02, Delays and Extensions of Time.

95. **Unilateral Change Order**: A written Change Order issued by the City to the Contractor after the effective date of the Agreement in accordance with Paragraph 6.05.

96. **Unit Price Work**: Work to be paid for on the basis of unit prices and actual quantities of Work. Refer to Paragraph 6.08.

97. **Work**: The performance by Contractor of all its responsibilities and obligations set forth in the Contract Documents. Work shall include, but not be limited to, providing all labor, materials, equipment, administrative services, Commissioning/start-up services, and documentation required by the Contract Documents. References in the Contract Documents to "Work" may be to items of Work. Refer to Paragraph 1.03.

98. **Working Day**: Any day of the week except Saturdays, Sundays, and statutory holidays.

1.02 CONTRACT DOCUMENTS AND CONTRACTING REQUIREMENTS

A. The Contract Documents set forth the requirements for the construction of the Work, and consist of the following documents:

1. The Agreement and other documents listed in the Agreement;
2. Change Orders, Unilateral Change Orders, Clarifications, and Field Orders issued after execution of the Contract;
3. The General Conditions (Section 00 72 00);
4. The Special Provisions (Sections 00 73 00 through 00 73 73) and General Requirements (Div. 01);
5. The Construction Documents and all Addenda thereto prepared by the City; and
6. The Bid Documents, as defined in Section 00 21 13 (Instructions to Bidders), not in conflict with the foregoing documents.

B. Nothing in the Contract Documents shall be construed to create a contractual relationship between the City and a Subcontractor, Supplier, Lower Tier Subcontractor or Supplier, or a person or entity other than the City and Contractor.

C. The Contracting Requirements and the General Requirements contain information necessary for completion of every part of the Project and are applicable to each section of the Specifications. Where items of Work are performed under subcontracts, the Contractor shall be responsible to ensure that the Work complies with the Contracting Requirements and General Requirements.

1.03 MEANING AND INTENT OF CONTRACT DOCUMENTS

A. The Contract Documents are complementary; what is required by one shall be as binding as if required by all. The Contract Documents will be construed in accordance with the laws of the State of California, the City's Charter and Administrative Code, and applicable building codes and statutes of the city and/or county where the Project is located, unless indicated otherwise for SFPUC's land outside the City of San Francisco.

B. Contractor is obligated to interpret the Contract Documents so as to provide for a functionally complete and operational Project (or part thereof) that Contractor must construct and turn over to the City in a new, complete, and satisfactory operating condition. Contractor and its Subcontractors shall provide all Work, materials, and equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as necessary to properly execute and complete the Work to conform to the requirements of the Contract Documents with no change in the Contract Sum or Contract Time.

C. Arrangement and titles of Drawings, and organization of the Specifications into Divisions, sections and articles in the Contract Documents shall not be construed as segregating the various units of material and labor, dividing the Work among Subcontractors, or establishing the extent of Work to be performed by any trade. Contractor may arrange and delegate its Work in conformance with trade practices, but Contractor shall be responsible for completion of all Work in accordance with the Contract Documents. The City assumes

no liability arising out of jurisdictional issues raised or claims advanced by trade organizations or other interested parties based on the arrangement or manner of subdivision of the content of the Drawings and Specifications. The City assumes no responsibility to act as arbiter to establish subcontract limits between portions of the Work.

D. In interpreting the Contract Documents, words describing materials or Work with a well-known technical or trade meaning, unless otherwise specifically defined in the Contract Documents, shall be construed in accordance with such well-known meaning.

E. A typical or representative detail on the Drawings shall constitute the standard for workmanship and material for the Work. Where necessary, and where reasonably inferable from the Drawings, Contractor shall adapt such representative detail for application to such corresponding parts of the Work. The details of such adaptation shall be subject to acceptance by the City. Repetitive features shown in outline on the Drawings shall be in exact accordance with corresponding features completely shown.

F. In the event of a conflict in the Contract Documents regarding the quality of a product, Contractor shall request Clarification from the City as provided in Paragraph 6.02 before procuring said product or proceeding with the Work affected thereby.

G. The layout of mechanical and electrical systems, equipment, fixtures, piping, ductwork, conduit, specialty items, and accessories on the Drawings is shown in diagrams and symbols to illustrate the relationships existing between the parts of the Work; all variations in alignment, elevation, and detail required to avoid interferences and satisfy architectural and structural limitations are not necessarily shown. If rerouting, i.e., relocating a duct, pipe, conduit, or similar utilities from the indicated room or space to another room or space to avoid structural interferences, results in a total linear footage which exceeds 125% of the indicated route if the structural interferences did not exist, then City will compensate Contractor for the amount in excess of 125% under the provisions for Change Orders of Article 6. Contractor shall carry out actual layout of the Work without affecting the architectural and structural integrity and limitations of the Work; shall perform the Work in such sequence and manner as to avoid conflicts; shall provide clear access to all control points, including valves, strainers, control devices, and specialty items of every nature related to such systems and equipment; shall obtain maximum headroom; and shall provide adequate clearances as required for operation and maintenance, and as required by the San Francisco Building Code or Code of other public authority having jurisdiction.

H. Unless otherwise indicated in the Contract Documents, the Drawings shall not be scaled for dimensions when figured dimensions are given, or when dimensions could be calculated, or field measured. When a true dimension cannot be determined from the Drawings or field measurement, Contractor shall request promptly the same from the City and shall obtain a Clarification or written interpretation from the City before proceeding with the Work affected thereby.

I. In the interest of brevity, the Contract Documents frequently omit modifying words such as “all” and “any” and articles such as “the” and “an,” but the fact that a modifier or an article is absent from one statement and appears in another shall not affect the interpretation of either statement.

J. When there is a conflict between existing on-Site conditions and information indicated on the Drawings, other than Differing Site Conditions as defined in Paragraph 3.04, the existing condition shall govern. Contractor shall perform the Work and adjust to the existing condition at no additional cost to the City, provided Contractor should have known of such conflicts based on its reasonable investigation of the Site prior to submitting its Bid in accordance with the requirements of Section 00 21 13 (Instructions to Bidders).

K. All references in the Contract Documents to satisfactory, sufficient, reasonable, acceptable, suitable, proper, correct, or adjectives of like effect shall be construed to describe an action or determination of the City Representative for the sole purpose of evaluating the completed Work for compliance with the requirements of the Contract Documents and conformance with the intent as expressed in subparagraph 1.03B. Such determinations of the City Representative shall be final and conclusive.

1.04 AMENDMENT OF CONTRACT DOCUMENTS

A. The parties may amend the Contract Documents after execution of the Agreement to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways: (i) Change Order; (ii) Modification, or (iii) Unilateral Change Order.

B. In addition, the City may supplement the requirements of the Contract Documents or authorize minor variations and deviations in the Work in one or more of the following ways: (i) a Field Order; (ii) a Clarification, written interpretation or other bulletin issued by the City; or (iii) the City's review and acceptance of a shop drawing or sample in accordance with Paragraph 3.11.

1.05 RESOLUTION OF CONFLICTING TERMS; PRECEDENCE OF CONTRACT DOCUMENTS

A. The Contract Documents are intended to be read together and integrated as a whole and shall be construed and interpreted in a manner so as to avoid any conflicts to the extent possible. Supplementary provisions in the Contract Documents shall not be deemed to be in conflict. It is expressly agreed by and between Contractor and the City that should there be any conflict between the terms of the Contract Documents and the Bid submitted by Contractor, the Contract Documents shall control, and nothing herein shall be considered as an acceptance of any terms of the Bid that conflict with the Contract Documents.

B. In the case of discrepancy or ambiguity in the Contract Documents, the following order of precedence shall prevail (listed in order of highest to lowest precedence):

1. Modifications in inverse chronological order, and in same order as specific portions they are modifying.
2. Executed Agreement Form.
3. Addenda.
4. Division 01 (General Requirements).
5. Division 00 (Bidding and Contract Requirements).
6. Divisions 02 through 48 (Technical Specifications).

7. Construction Drawings.
8. Bid Documents.

C. With reference to the Drawings the order of precedence shall be as follows (listed in order of highest to lowest precedence):

1. Written numbers over figures, unless obviously incorrect.
2. Figured dimensions over scaled dimensions.
3. Large-scale Drawings over small-scale Drawings.
4. Schedules on Drawings or in Project Manual over conflicting information on other portions of Drawings.
5. Detail Drawings govern over general Drawings.
6. Drawing with highest revision number prevails.

1.06 REUSE OF CONTRACT DOCUMENTS

The Contract Documents are for the Work of this Contract only. No part of the Contract Documents may be used for any other construction project or for any other purpose except with the written consent of the City. Any unauthorized use of the Contract Documents is at the sole liability of the user.

ARTICLE 2 - CITY'S RESPONSIBILITIES AND RIGHTS

2.01 ADMINISTRATION OF THE CONTRACT

A. The City shall administer the Contract as described in the Contract Documents. Division 01 addresses administrative requirements and procedures.

B. The Department Head will designate in writing an authorized representative with limited authority to act on behalf of the City. The City may at any time during the term of this Contract changes the authority of any representative or may designate additional representatives in accordance with the City's Charter and codes. City will communicate such changes to Contractor in writing. Contractor assumes all risks and consequences of performing work pursuant to any order, including but not limited to instruction, direction, interpretation or determination, issued by anyone who the City has not authorized to issue such order.

2.02 INFORMATION AND SERVICES

A. The City will make the Site available to Contractor so that Contractor can inspect the Site and perform the Work.

B. The City will furnish a survey and reports describing physical characteristics, legal limitations, and utility locations for the Site.

C. The City will make available to the Contractor, as Available Project Information only, information available to the City concerning the Site and the Project. The City will assist with, but not be responsible for, the filing of documents required to obtain necessary

approvals of governmental authorities, jurisdictional agencies, or utility companies having jurisdiction over the Project. Such assistance may be in the form of executing permits where owner's signature is required or providing information that would not otherwise be available to Contractor. The Contractor shall be responsible for payment of related services, fees or taxes except as specified in Paragraph 3.07.

D. The City will be responsible for paying all real property taxes and assessments applicable during the performance of the Work or portions thereof.

E. The City will apply and pay for any required building permit and pay all permanent utility service connection fees. Contractor shall secure and pay for all other permits, easements, approvals, temporary utility charges, and other charges required for construction in accordance with Paragraph 3.07.

1. The City's responsibility with respect to certain inspections, tests, and approvals is set forth in Article 8.

2.03 RIGHT TO STOP THE WORK; CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH CONTRACT

A. The City may order Contractor to stop the Work, or a portion thereof, if City determines Contractor is not performing the Work in accordance with the Contract until Contractor eliminates or addresses the cause for such order. City shall issue any such order to stop the Work in a written document signed by the City Representative, which provides the Contractor with an effective date for stopping Work. The City may issue an order to stop Work immediately. Unless otherwise agreed to by the City, Contractor shall not be entitled to an adjustment of the Contract Time or Contract Sum as a result of an order to stop the Work.

B. The right of the City to stop the Work shall not give rise to a duty on the part of the City to exercise this right for the benefit of Contractor or other person or entity.

C. The City may order Contractor to stop the Work, or a portion thereof, for reasons including but are not limited to the following:

1. Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents; or
2. Contractor fails to carry out Work in accordance with the Contract Documents; or
3. Contractor disregards the authority of the authorized City Representative; or
4. Contractor disregards the laws or orders of a public body having jurisdiction over the Project; or
5. Contractor violates any material provisions of the Contract Documents; or
6. Contractor fails to maintain current certificates of insurance on file with the City; or
7. Contractor is proceeding with original Contract Work, which will be modified by a pending Change Order.

D. Alternatively, the City may issue a written notice to Contractor identifying the ground(s) for ordering Contractor to stop Work and providing the Contractor with a 14-day cure

period to complete necessary corrective Work and/or actions. In the event that necessary corrective Work and/or actions cannot be completed within the 14-day cure period through no fault of Contractor or its Subcontractors and Suppliers, Contractor shall, within the 14-day cure period, (i) provide the City with a schedule, acceptable to the City, for completing the corrective Work and/or actions; and (ii) commence and prosecute the corrective Work and/or actions diligently. The City, after accepting Contractor's proposed schedule, will amend the stop work notice in writing to set forth the agreed-upon cure period. If Contractor fails to completely cure the ground(s) for stopping Work either (i) within the 14-day cure period set forth in the notice; or (ii) within the agreed-upon cure period set forth in an amended notice, the City may, without prejudice to any other rights or remedies that the City may have, order Contractor to stop the Work until the cause for such order has been eliminated.

E. In the event that Contractor (i) fails to maintain current certificates of insurance on file with the City; (ii) commits criminal or unlawful acts; (iii) creates safety hazards; or (iv) commits acts or creates conditions that would have an immediate adverse impact on the well-being of the Project, the City, the public, and/or Contractor's employees, the City shall have the right to order Contractor to stop the Work immediately, without prior notice.

2.04 RIGHT TO CARRY OUT THE WORK

A. In the event that Contractor fails to carry out the Work in accordance with the Contract Documents and fails to correct or prosecute the Work promptly within a three-day period following a written notice of a deficiency from the City, or other such period as may be specified elsewhere in the Contract Documents, the City may, without prejudice to other remedies the City may have, correct such deficiencies.

B. In such case the City will deduct all costs of such corrections, including the labor costs of City staff and consultants, from amounts due to Contractor. If funds remaining under the Contract are not sufficient to cover the costs of such corrections, Contractor shall promptly reimburse the City.

2.05 EXAMINATION OF RECORDS; AUDIT

A. The City shall have the right to examine, copy, and audit all documents whether paper, electronic, or other media, and electronically stored information, including but not limited to, any and all books, estimates, records, contracts, documents, bid documents, proposal cost data, subcontracts, schedules, job cost reports, and other data, including computations and projections, of Contractor, Subcontractors, Lower-Tier Subcontractors and Suppliers related to bidding, negotiating, pricing, or performing the Work covered by: (i) a Proposed Change Order Cost Proposal; (ii) a Proposed Change Order Time Adjustment Proposal; (iii) Force Account Work; or (iv) a Contract Claim. In the event that Contractor is a joint venture, said right to examine, copy, and audit shall apply collaterally and to the same extent to the records of the joint venture sponsor, and those of each individual joint venture member.

B. Upon written notice by the City, Contractor immediately shall make available at its office at all reasonable times the materials noted in subparagraph 2.05A for examination, audit, or reproduction. City's notice will be in writing, delivered by hand or by certified mail, and will provide not fewer than five days of notice of the examination and/or audit. The City

may take possession of the records and materials noted in subparagraph 2.05A by reproducing documents for off-site review or audit. When requested in the City's written notice of examination and/or audit, Contractor shall provide the City with copies of electronic documents and electronically stored information in a reasonably usable format that allows the City to access and analyze all such documents and information. For documents and information that require proprietary software to access and analyze, Contractor shall provide the City with two licenses with maintenance agreements authorizing the City to access and analyze all such documents and information.

C. The City has sole discretion as to the selection of an examiner or auditor and the scope of the examination or audit.

D. The City may examine, audit, or reproduce the materials and records under this Paragraph from the date of award until three years after final payment under this Agreement.

E. Failure by the Contractor to make available any of the records or materials noted in subparagraph 2.05A or refusal to cooperate with a notice of audit shall be deemed a material breach of the Contract and grounds for Termination for Cause.

F. Contractor shall insert and require the insertion of a clause containing all the provisions of this Paragraph in all subcontracts in excess of $10,000 with Subcontractors and Suppliers of all tiers.

2.06 NO WAIVER OF RIGHTS

A. None of the following shall operate as a waiver of any provision of the Contract Documents or of any power herein reserved by the City or any City right to damages herein provided:

1. Inspection by the City or its authorized agents or representatives; or
2. Any order or certificate for payment, or any payment for, or acceptance of the whole or any part of the Work by the City; or
3. Any extension of time; or
4. Any position taken by the City or its authorized agents or representatives.

2.07 CITY NOT LIABLE FOR CONSEQUENTIAL DAMAGES

The City, its boards and commissions, and all of their officers, agents, members, employees, and authorized representatives shall have no liability to Contractor for any type of special, consequential, or incidental damages arising out of or connected with Contractor's Work. This limit of liability applies under all circumstances including, but not limited to, the breach, completion, termination, suspension, cancellation, or rescission of the Work or this Contract; negligence or strict liability by the City, its boards and commissions, and their representatives, consultants, or agents.

2.08 RIGHT TO CHANGE, SUSPEND OR DELAY THE WORK

By executing this Agreement, Contractor agrees that the City has the right to do any or all of the following, which are reasonable and within the contemplation of the parties: (i) order changes, additions, deletions, and extras to the Work after execution of the Contract and

issue from time to time throughout the period of construction, regardless of their scope, number, cumulative value, or complexity, to correct errors, omissions, conflicts, and ambiguities in the Contract Documents, or to implement discretionary changes to the scope of Work requested by the City; (ii) issue changes, additions, deletions, and extras in a manner that is not in sequence with the as-built or as-planned progress of the Work; (iii) issue changes due to Unforeseen or Differing Conditions; (iv) suspend the Work, or parts thereof, or limit access to portions of or all of the Work, for the convenience of the City or in the interests of the Project; or (v) delay or disrupt the Work due to failure of the City to timely perform any contractual obligation.

ARTICLE 3 - CONTRACTOR'S RESPONSIBILITIES

3.01 GENERAL CONSTRUCTION RESPONSIBILITIES

A. Services and Standards. The Contractor shall perform or furnish all construction and related services as set forth in the Contract Documents. Contractor shall provide all construction services necessary for receipt of all occupancy permits and authorizations to operate for a facility meeting or exceeding all specification requirements as agreed upon by the City and Contractor, and as set forth in the Contract Documents. Contractor assumes responsibility for on-budget, on-schedule delivery of the Project regardless of its contractual agreements with parties other than the City.

B. Key Team Members. Contractor acknowledges and agrees that the City-selected Contractor upon the representation that the Key Team Members identified in any prequalification or bid submission documents (e.g., Experience Statement, Section 00 49 12) would be the Key Team Members involved in the services for the Project. Contractor may make any changes in assignment or replacement of the Key Team Members only with the prior written consent of the City, which consent may be given or withheld in the sole, subjective (but not arbitrary) discretion of the City. In the event of a withdrawal from the Project by Key Team Members due to circumstances outside the control of Contractor, such as death, long-term illness, or resignation by any such Key Team Members, Contractor shall promptly notify the City in writing and shall submit for City approval its candidate to replace such individual.

C. Cooperation. Contractor shall provide the City, its employees, consultants, and other representatives, and representatives of other authorities having jurisdiction, with full cooperation in the performance of their duties and responsibilities related to the Work covered by the Contract and shall maintain civil decorum on the Project site. Such cooperation may take the form of providing appropriate personnel to attend meetings, reviews, hearings, inspections, or similar project-related functions, and to provide documents as requested.

3.02 REVIEW OF CONTRACT DOCUMENTS AND SITE CONDITIONS

A. The Contract Documents are not complete in every detail but show the purpose and intent only, and Contractor shall comply with their true intent and meaning, taken as a whole, and shall not avail itself of any manifest error, omission, discrepancy, or ambiguity that appears in the Contract Documents, instructions, or work performed by others.

B. Contractor shall verify all dimensions and determine all existing conditions that may affect its Work adequately in advance of the Work to allow for resolution of questions without delaying said Work, and Contractor shall be responsible for the accuracy of such dimensions and determinations.

C. Contractor shall carefully review the appropriate portions of the Contract Documents a minimum of 30 days in advance of performing its Work for the express purposes of checking for any manifest errors, omissions, discrepancies, or ambiguities. Contractor shall not be entitled to any compensation for delays, disruptions, inefficiencies, or additional administrative effort caused by Contractor's untimely review of the Contract Documents.

D. Contractor shall notify the City in writing promptly as specified in Paragraph 6.02 upon discovery of errors, omissions, discrepancies, or ambiguities, and the City will issue a Clarification or RFI reply as to the procedure to be followed. If Contractor proceeds with any such Work without receiving such Clarification or RFI reply, it shall be responsible for correcting all resulting damage and Non-conforming Work.

E. Contractor shall be responsible for its costs and the costs of its Subcontractors to review Contract Documents and field conditions and to implement and administer a Request for Information ("RFI") system throughout the Contract Time in accordance with the requirements of Division 01. Contractor shall be responsible for costs incurred by the City for the work of the City's consultants and City's administrative efforts in answering Contractor's RFIs where Contractor reasonably could have determined the answer by reviewing the Contract Documents.

F. Prior to start of Work, Contractor and the City Representative shall visit the Site and adjacent properties as necessary to document existing conditions including photographs. Contractor shall document these conditions and shall submit to the City prior to the start of Work a complete report of existing conditions determined by the Site survey as indicated in Division 01.

3.03 SUPERVISION OF THE WORK

A. Unless there are specific provisions in the Contract Documents to the contrary, Contractor shall be solely responsible to fully and skillfully supervise and coordinate the Work and control the construction means, methods, techniques, sequences and procedures. Contractor shall be solely responsible for Contractor's failure to carry out the Work in accordance with the Contract Documents and for the acts or omissions of Contractor, its Subcontractors, or their agents or employees, or of any other persons performing portions of the Work. Contractor shall be responsible for maintaining safe conditions on the Site at all times, in accordance with Article 12.

B. Contractor shall supervise and coordinate the Work of its Subcontractors so that information required by one will be furnished by others involved in time for incorporation into the Work in the proper sequence and without delay of materials, devices, or provisions for future Work.

C. Whenever the Work of a Subcontractor is dependent upon the work of other Subcontractors or contractors, then Contractor shall require the Subcontractor to:

1. Coordinate its Work with the dependent work;
2. Provide necessary dependent data, connections, miscellaneous items, and other transitional requirements;
3. Supply and install items to be built into dependent work of others;
4. Make provisions for dependent work of others;
5. Examine dependent drawings and specifications and submittals;
6. Examine previously placed dependent work;
7. Check and verify dependent dimensions of previously placed work;
8. Notify Contractor of previously placed dependent work or dependent dimensions which are unsatisfactory or will prevent a satisfactory installation of its Work; and
9. Not proceed with its Work until any unsatisfactory dependent conditions have been corrected.

D. Contractor shall immediately comply with and prosecute orders and instructions including, but not limited to, Change Orders, RFI replies and Clarifications given by the City in accordance with the terms of this Contract, but nothing stated herein shall be interpreted to relieve Contractor of any of its obligations or liabilities under this Contract, or of performing its duty to direct and supervise the Work.

E. Contractor shall at all times permit the City, its agents, and authorized representatives to: (i) visit and inspect the Work, the materials and the manufacture and preparation of such materials; and (ii) reject materials that do not conform to the requirements of the Contract Documents. This obligation of Contractor shall include maintaining proper facilities and safe access for such inspection. Where the Contract requires Work to be tested or inspected, Contractor shall not permit the Work to be covered up before inspection and approval by the City as set forth in Article 8.

F. Whenever Contractor desires to perform Work outside regular working hours, Contractor shall give notice to the City of such desire and request and obtain the City's written permission at least three working days in advance, or such other period as may be specified, except in the event of an emergency prior to performing such Work so that the City may make the necessary arrangement for testing and inspection.

G. If Contractor receives a written notice from the City that a Clarification is forthcoming from the City, Contractor shall coordinate all Work performed before the receipt of the Clarification with the City to minimize the effect of the Clarification on Work in progress. All affected Work performed after receipt of the City's written notice but before receipt of the Clarification and not so coordinated shall be at Contractor's risk.

H. During all disputes or disagreements with the City, Contractor shall carry on the Work and adhere to the progress schedule required by the Contract Documents. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as the City and Contractor may otherwise agree in writing.

3.04 DIFFERING SITE CONDITIONS

A. Consistent with section 7104 of the California Public Contract Code, if Contractor encounters any of the following conditions at the Site, Contractor shall promptly notify the City in writing of the specific differing conditions before disturbing such conditions and before performing any affected Work to permit the City to timely investigate the conditions.

1. Material that Contractor believes may be classified as hazardous waste, as defined in California Health and Safety Code section 25117, which is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of law.
2. Subsurface or latent physical conditions at the Site (including hazardous waste) that differ materially from those indicated by City-provided information about the Site made available to contractors prior to the deadline for submitting Bids.
3. Unknown physical conditions at the Site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in Work of the character provided for in the Contract Documents.

B. Contractor's written notice shall include the following information concerning such conditions: (i) location; (ii) nature and extent; (iii) a description of how such conditions affect the Work; (iv) recommended methods to overcome such conditions; (v) the baseline conditions described in the Contract Documents that formed the basis of Contractor's expectations regarding the conditions that would be encountered; and (vi) the results of any testing, sampling, or other investigation conducted by Contractor.

C. Differing Site Conditions shall not include:

1. All that is indicated in or reasonably interpreted from the Contract Documents or Available Project Information;
2. All that could be seen on Site from a reasonable pre-bid visual site inspection;
3. Conditions that are materially similar or characteristically the same as those indicated or described in the Contract Documents or Available Project Information; and
4. Conditions where the location of a building component is in the proximity where indicated in or reasonably interpreted from the Contract Documents or Available Project Information.

D. The City will promptly investigate the conditions reported in Contractor's written notice and will issue written findings to Contractor.

E. Contractor shall be responsible for the safety and protection of the affected area of the Work for the duration of the City's investigation of potential Differing Conditions.

F. Only if the City determines, in its sole and reasonable discretion, that the conditions reported do materially so differ, and cause a decrease or increase in Contractor's cost or time required to perform all or part of the Work, will the City issue a Change Order as provided in Article 6 of these General Conditions. If the City determines that a Differing Site Condition exists, Contractor shall promptly submit an Article 6 Cost Proposal and/or

Time Adjustment Proposal, as appropriate to facilitate the timely negotiation and execution of a Change Order.

G. If Contractor disagrees with the City's determination and wishes to pursue an adjustment to the Contract Sum and/or Contract Time, Contractor must timely submit a written Notice of Potential Claim to the City as provided in Paragraph 13.02 of these General Conditions. Contractor's Notice of Potential Claim must include the information required by Paragraph 13.02 and must also identify the Escrow Bid Documents that formed the basis of Contractor's Bid to perform the Work affected by the alleged differing condition. In the event of such disagreement, Contractor shall proceed with all Work to be performed under the Contract Documents and shall not be excused from any scheduled completion date provided for by the Contract Documents.

H. If Contractor fails to comply with the requirements of this Paragraph concerning the timing and content of any notice of Differing Site Conditions or of any request for adjustment of the Contract Sum and/or Contract Time based on alleged Differing Site Conditions, Contractor agrees that by such failure it has waived any and all rights to pursue any Contract Claim or seek any remedies in any subsequent proceedings (e.g., Government Code Claims and litigation) including any adjustments to the Contract Sum or Contract Time arising from or relating to such conditions.

3.05 PROJECT MANAGER AND OTHER KEY TEAM MEMBERS

A. Contractor shall at all times be represented at the Site by Contractor's competent project manager or superintendent whom it has authorized in writing to make decisions and receive and carry out any instructions given by the City. Contractor shall be responsible for faithful compliance with such instructions. Prior to the issuance of a Notice to Proceed, Contractor shall inform the City in writing of the name, address, and cell phone number of its project manager whom it has authorized to act as its representatives at the Site and who the City may contact in case of emergencies at the Site during non-working hours, including Saturdays, Sundays, and holidays. If Contractor is a joint venture, it shall designate only one such representative. Contractor shall also provide City with contact information for persons to contact if City is unable to reach Contractor's project manager, such as general construction superintendents, project coordinators, and foremen.

B. The City reserves the right to reject Contractor's project manager, general construction superintendents, project coordinators, and foremen at any time for cause as provided in subparagraph 3.06A. Contractor shall provide the City with written notice of the proposed replacement of Contractor's project manager, superintendents, and foremen, subject to City's approval.

C. In the event that the Contractor proposes to substitute for any Key Team Member during the term of the Contract, Contractor shall submit to the City Representative, at least seven days prior to engaging the person, an Experience Statement form (Section 00 49 12) detailing the experience of the proposed replacement Key Team Member. Any proposed substitution is subject to the approval by the City Representative based upon qualifying experience set forth in the Bid Documents for the project. Failure to obtain the City's approval shall not constitute an excuse for Contractor delay in prosecuting the Work. In addition, the City may issue an order to stop the work under Article 2.03 until such time as

the Contractor engages City-approved persons possessing skills and qualifications acceptable to the City.

3.06 LABOR, MATERIALS AND EQUIPMENT

A. Contractor shall employ only competent and skillful persons to perform the Work and shall at all times maintain good discipline and order at the Site. Upon the City's written directive, Contractor shall discharge from the Work and replace at no additional cost to the City an employee, Subcontractor, or Supplier used on the Work who, in the City's sole judgment: (i) is incompetent, obnoxious, or disorderly; or (ii) has intimidated or sexually harassed a City employee, agent, or member of the public; or (iii) commits racist other discriminatory actions or communicates or displays racist or other discriminatory statements or insignia; or (iv) is refusing to carry out the provisions of the Contract.

B. So that the City can determine whether Contractor has complied or is complying with the requirements of the Contract that are not readily enforceable by inspection and test of the Work and materials, Contractor shall upon request submit properly authenticated documents or other satisfactory proof of its compliance with such requirements.

C. Before ordering materials, equipment, or performing Work, Contractor shall verify indicated dimensions in a timely fashion by taking field measurements required for the proper fabrication and installation of the Work as specified in Paragraph 3.01. If a discrepancy exists, Contractor shall notify the City immediately and request the City to provide a clarification. Upon commencement of a particular item of Work, Contractor shall be responsible for dimensions related to such item of Work.

D. Contractor shall be responsible for delivery, handling, storage, installation, and protection of all materials and equipment to prevent damage in accordance with best current practice in the industry, in accordance with manufacturers' specifications and recommendations, and in accordance with the requirements of the Contract Documents. Contractor shall store packaged materials and equipment at the Site in their original and sealed containers, marked with the brand and manufacturer's name, until ready for use. Contractor shall deliver materials and equipment in ample time to facilitate inspection and tests prior to installation.

E. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all materials, equipment, labor, transportation, construction equipment, machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, field offices, storage facilities, and incidentals necessary for the performance, testing, start-up, and completion of the Work in accordance with Division 01.

F. In the event that Division 01 does not require a field office for the City Representative, Contractor shall provide adequate separate sanitary facilities at the Site for the City Representative.

3.07 PERMITS, FEES, AND NOTICES

A. Contractor shall pay all utility charges for temporary connections to the Work.

B. Unless otherwise provided in the Contract Documents, Contractor shall secure and pay for all permits (other than the building permit), governmental fees (other than permanent utility

service connection fees), licenses, and inspections (other than inspections which are to be performed at the expense of the City as provided in Article 8) necessary for proper execution and completion of the Work. See Section 00 73 00 (Supplementary Conditions), Appendices A and B, as applicable.

1. Contractor shall coordinate and obtain all permits prior to starting Work for which permits are required.
2. The City will reimburse Contractor for reasonable costs incurred for obtaining permits that are not specified in the Contract Documents to be obtained at Contractor's expense.

C. Contractor shall give all notices required by laws, ordinances, rules, regulations, and lawful orders of public authorities that relate to performance of the Work including those specified in California Civil Code section 832.

D. Contractor shall secure all permits and pay all applicable permit fees prior to performing excavation in the public right of way. Contractor shall timely deliver, post, and maintain all notices required by such permits. Contractor shall be solely responsible for coordinating and performing its excavation and street restoration operations in accordance with the conditions of such excavation permits and applicable regulations. Should delays or damages be caused by Contractor's failure to coordinate or comply with the conditions of such excavation permits, Contractor shall pay all costs, assessments, fines, and penalties resulting therefrom.

E. If Contractor observes that portions of the Contract Documents are at variance with the Code or other applicable laws, statutes, ordinances, rules and regulations, Contractor shall promptly notify the City in writing. If the City determines that changes to the Contract Documents are necessary to comply with such laws, statutes, ordinances, rules, or regulations, the City will make necessary changes to the Contract Documents by appropriate amendment.

F. If Contractor performs Work it knows, or reasonably should have known, to be contrary to the Code or other applicable laws, statutes, ordinances, and rules and regulations without written notice to the City, Contractor shall assume responsibility for such Work and shall bear all costs of correction.

G. Contractor shall keep the permits and an approved set of Drawings and Specifications at the Site readily available for inspection during regular working hours throughout the Contract Time.

H. Contractor shall coordinate all required inspections and special inspections with the appropriate agency having jurisdiction. Contractor shall notify the City Representative in accordance with Article 8, so that the appropriate City representatives and inspectors can be present at these inspections.

I. Contractor shall be responsible for preparing and submitting for approval to the appropriate agency having jurisdiction all shop drawings, product data, and manufacturer's certificates as may be required under the conditions of applicable permits.

J. Contractor shall submit to the City Representative as a condition precedent to Final Completion signed copies of permit documents including, but not limited to, job cards, permit applications, permit Drawings, and certificates of occupancy.

3.08 RECORD DOCUMENTS

A. Contractor shall maintain at the Site a current record copy of all Contract Documents, including, but not limited to, Drawings, Specifications, Addenda, Change Orders, RFIs, Clarifications, Field Orders, BIM, and approved shop drawings, samples, and other submittals, in good order and clearly marked to record accurately the Work as actually constructed ("as-built"), including changes, adjustments, and other information relative to the Work as actually constructed, all in accordance with the Specifications. Additionally, Contractor shall provide record documents that conform to the requirements specified in Division 01.

B. Contractor shall furnish on a monthly basis the aforesaid record documents for the City to review and determine their sufficiency in conforming to the requirements set forth in subparagraph 3.08A. The City shall have the right to withhold 25% of progress payments due to Contractor until Contractor has complied with this Paragraph 3.08

C. Contractor shall make record documents available for inspection by the City at all times and shall deliver such documents to the City prior to Substantial Completion.

3.09 CONTRACTOR'S DAILY REPORT

A. Contractor shall complete, and submit to the City on the next day, consecutively numbered daily construction reports in accordance with Division 01.

B. In addition, whenever Force Account Work is in progress, Contractor shall complete and submit to the City detailed written daily Force Account Work reports as provided under Paragraph 6.07.

3.10 PROGRESS AND SUBMITTAL SCHEDULES

A. At the Pre-Construction Conference, Contractor shall submit to the City for review a 60-day bar chart Plan of Operation as required by Division 01.

B. Prior to commencing Work, Contractor shall submit to the City for review and approval the following documents:

1. A cost-and-resource-loaded baseline construction schedule for the Work which shall use, unless otherwise specified in Division 01, the critical path method ("CPM"), activity on arrow or precedence diagramming method, as outlined in the Associated General Contractors publication "The Use of CPM in Construction," and shall indicate the times (number of days or dates) for starting and completing the various stages of the Work, including all milestones and special constraints specified in the Contract Documents; and

2. A submittal log, coordinated with the progress schedule in accordance with the requirements of Division 01, listing all submittals required by the Contract, their cognizant specification reference, and indicating the times for submitting such submittals.

C. Unless specified elsewhere in the Contract Documents, within 10 days after submittal, the City and Contractor shall meet to review for acceptability to the City the schedules submitted under subparagraph 3.10A. Contractor shall have an additional five days to make corrections and adjustments and to complete and resubmit the schedules.

D. City will not issue any progress payments to Contractor unless and until Contractor submits and the City accepts the baseline schedule in accordance with Section 01 32 16 (Construction Progress Schedule).

E. Contractor shall adhere to the baseline construction schedule accepted by the City in accordance with subparagraph 3.10C and as may be adjusted during the performance of the Work in accordance with the Contract Documents. Contractor shall submit to the City for acceptance proposed revisions or adjustments in the baseline construction schedule. Contractor must submit to the City proposed adjustments in the baseline construction schedule that will change the Contract Times in accordance with Paragraph 7.02.

F. City's acceptance of baseline construction and submittal schedules will neither impose on the City responsibility for the sequencing, scheduling, or progress of the Work nor interfere with or relieve Contractor from its full responsibility therefor.

G. Contractor shall submit a monthly progress schedule update as a condition precedent to making an Application for Payment as set forth in Paragraph 9.03 and Section 01 20 00 (Price and Payment Procedures). Contractor shall submit all updates to the City for the City's acceptance; if rejected, Contractor shall correct and resubmit updates to the City's satisfaction before City will approve any pending application for payment.

1. Each progress schedule update shall continue to show all Work activities including those already completed and those of changed Work.
2. Each progress schedule update shall accurately reflect "as-built" information by accurately indicating the dates activities were actually started and completed and the actual percent complete of activities.
3. Contractor's submission of progress schedule updates, reports, curves, or narratives, or the City's acceptance of such progress schedule updates, reports, curves, or narratives, shall not amend or modify, in any way, the Contract Time or milestone dates or modify or limit, in any way, Contractor's obligations under this Contract.
4. Contractor waives its rights to time extensions based on changed Work if Contractor has failed to meet its obligations to provide monthly schedule updates as specified herein.

H. Early Completion Schedule: If Contractor submits a baseline schedule that shows a completion time that is earlier than the Contract Time, the "float" or slack time shall belong to the Project and is an expiring resource available to City or Contractor as needed to meet Milestones or complete the Work within the Project Time. Contractor shall not be entitled to a compensable time extension for any Change Order or Unilateral Change Order that causes the early completion date to be extended within the "float."

3.11 SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

A. Shop drawings, product data, samples, and similar submittals are not Contract Documents. The purpose of their submittal is to demonstrate for those portions of the Work for which submittals are required the way Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents.

B. Contractor shall review, approve, stamp, and submit to the City as specified in Division 01 shop drawings, product data, samples, and similar submittals required by the Contract Documents in accordance with the accepted submittal schedule. City may return submittals from Contractor that are not required by the Contract Documents without taking any action.

C. By approving and submitting shop drawings, product data, samples, and other submittals, Contractor represents that it has determined and verified materials, field measurements, and field construction criteria related thereto, and has checked and coordinated the information contained within such submittals for conformance to the Contract Documents and for coordination of the Work indicated in the submittal and with adjacent work.

D. Contractor shall not perform any portion of the Work requiring submittal and review of shop drawings, product data, samples, and other submittals until the respective submittal has been received, reviewed, and approved or received, reviewed, and accepted by the City and returned to Contractor. Such Work shall be in accordance with approved/accepted submittals. Contractor is solely responsible for delays or disruptions to the Work caused by inadequate, uncoordinated, incorrect, or late submittals.

E. Where a shop drawing or sample is required by the Contract Documents, related Work performed prior to the City's review and approval of the pertinent submittal shall be at the sole expense, risk, and responsibility of Contractor.

F. The review, acceptance, approval, or other action taken by the City upon Contractor's submittals such as shop drawings, product data, samples, and other submittals, shall apply to general design concepts only, and shall in no way relieve Contractor from its responsibility to notify the City of errors or omissions therein in accordance with Paragraph 3.02, nor from providing all labor, equipment, and materials in accordance with the requirements of the Contract Documents necessary for the proper execution of the Work. The City will review submittals with reasonable promptness provided that the City shall be provided a reasonable time, as set forth in Section 01 33 00 (Submittal Procedures), to permit adequate review. Approval/acceptance of submittals shall not affect the Contract Sum, and additional costs that may result therefrom shall be solely Contractor's obligation. Contractor shall be responsible to provide engineering Items or other service necessary to prepare the submittals and obtain approvals required by the Contract Documents from the City or other authorities having jurisdiction without changes to the Contract Sum or Contract Time. City is not precluded, by virtue of such approvals/acceptances, from obtaining a credit for construction costs resulting from approved concessions in the Work or materials therefor.

G. Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the City's approval of shop drawings, product data, samples, and other submittals unless Contractor has specifically informed the City in writing, attached to

the submittal, of such deviation at the time of submittal and the City has given written approval to the specific deviation.

1. Contractor shall indicate any deviations clearly and boldly on shop drawing, product data, samples, or related submittals.
2. For resubmitted shop drawings, product data, samples, and other submittals, Contractor shall direct specific attention, by written attachment, to revisions other than those requested by the City on previous submittals.

H. Contractor shall not be relieved of responsibility for errors or omissions in shop drawings, product data, samples, or similar submittals by the City's approval thereof.

3.12 SUBSTITUTIONS

A. Pursuant to section 3400 of the California Public Contract Code, Contractor shall submit to the City for approval a properly completed Request for Product Substitution (Section 00 49 18) for each material, product, thing, or service that it proposes to substitute in place of, and as the equal, of a material, product, thing, or service specified in the Contract Documents by trade name or by the names of any particular patentee, manufacturer, or dealer. Failure to submit said Request for Product Substitution form within the period specified in Section 00 49 18 will be deemed adequate and reasonable grounds for refusal by the City to consider any subsequent proposed substitutions.

B. The requirements for obtaining approval of substitutions set forth in Section 01 25 13 (Product Substitution Procedures).

3.13 USE OF SITE

A. Contractor shall confine its operations at the Site to areas permitted by law, ordinances, permits, and the Contract Documents and shall not unreasonably encumber the Site with materials or equipment.

B. Notwithstanding the designation of Contract limits or the indication of temporary fences or barricades, the provisions of the Contract Documents governing certain portions or phases of the Work may require that certain operations be carried out beyond such designated limits. In all cases, the Work shall be constructed solely within the boundaries described in the Contract Documents. Contractor shall coordinate with the City to obtain in advance of said operations all necessary permits, rights-of-way, or easements, and shall give proper notice thereof to owners of affected properties including but not limited to notice in accordance with section 832 of the California Civil Code. Contractor shall obtain all such permits, rights-of-way, and easements at no cost to the City.

C. Contractor shall carry out pumping, draining, and control of surface and ground water and excavating or other earthwork so as to avoid endangering the Work or adjacent facility or property, or interrupting, restricting or otherwise infringing or interfering with the use thereof. Contractor shall conform to the Code and applicable laws and regulations and shall obtain all permits necessary to perform grading or excavation or dispose of surface or ground water or excavated materials at the Site.

D. Contractor shall not load nor permit any part of any structure to be loaded in a manner that will endanger the structure, nor shall Contractor subject part of the Work or adjacent property to stresses or pressures that will endanger it.

E. Contractor shall assume full responsibility for and shall promptly settle all claims for damage to areas within the Contract limits, or to adjoining areas or the owners or occupants thereof, resulting from the performance of the Work.

3.14 ACCESS TO WORK

During the performance of the Work, the City and its authorized representatives, including City consultants performing necessary project-related functions on behalf of the City (e.g., construction management personnel and design professionals), or other persons deemed necessary by any of them acting within the scope of the duties entrusted to them, may at any time, and for any purpose, enter upon the Project site, the shops where any part of such Work may be in preparation, the facilities where any part of the Work may be in storage, or the factories where any materials for use in the Work are being, or are to be, manufactured. Contractor shall not require City personnel or City consultants performing necessary project-related functions on behalf of the City to sign visitor hold harmless agreements or similar agreements requiring the signatory to defend, hold harmless, and/or indemnify Contractor for claims arising out of or relating to the Work, the Project, or the Site.

3.15 CUTTING AND PATCHING

A. Contractor shall be responsible for performing, in accordance with the requirements of the Specifications, all cutting, fitting, and patching of the Work that may be required to make all parts fit together or to receive the work of other contractors shown on, or reasonably implied by, the Contract Documents for the completed Work.

B. Contractor shall not damage or endanger a portion of the Work, or fully or other partially completed construction of the City or separate contractors, by excavation or by cutting, patching, or otherwise altering such construction. Contractor shall not cut or otherwise alter such construction by the City or a separate contractor except with written consent of the City. Contractor shall not withhold from the City Contractor's consent to cut or otherwise alter the Work.

3.16 CLEANING UP AND REMOVING DEBRIS

A. Contractor shall keep the Site and surrounding area, including public areas immediately adjacent to the Site such as temporary pedestrian walkways and sidewalks, free from accumulation of excess materials, rubbish, graffiti, and debris.

1. Contractor shall perform such clean up and removal in accordance with the requirements of the Specifications.
2. Prior to Substantial Completion, Contractor shall remove from and about the Site excess materials, rubbish, Contractor's tools, construction equipment, and machinery and shall perform final cleaning as specified in accordance with the requirements of the Specifications.
3. Contractor shall remove and dispose of excess materials, rubbish, and other debris in conformance with applicable laws and regulations.

B. If Contractor fails to comply with this provision or to clean up as provided in the Contract Documents, the City may do so and deduct the cost of such cleanup from the amount due to Contractor under the Contract after providing written notice to Contractor and Contractor's failure to provide clean up as provided in the Contract Documents within three days of Contractor's receipt of such written notice.

C. Contractor shall salvage and deliver to the City removed equipment, appurtenances, and other materials that are not reused in the Work and indicated by the City to be salvaged. Contractor shall remove from the Site as its property and dispose of in a legal manner all other equipment, appurtenances, and other materials to be removed and not indicated to be salvaged or otherwise claimed by the City.

3.17 INTELLECTUAL PROPERTY; ROYALTIES AND INDEMNIFICATION

A. Contractor shall be responsible at all times for compliance with applicable patents, copyrights, trademarks, and/or other intellectual property rights held by others encompassing, in whole or in part, any invention, design, process, product, device, material, article, or arrangement used, directly or indirectly, in the performance of the Work or incorporated into the Work.

B. Contractor shall pay, and include in the Contract Sum, all royalties and license fees and assume all costs incident to the use in the performance of the Work or the incorporation into the Work of any invention, design, process, product, device, material, article, or arrangement which is the subject of a patent right, copyright, trademark, and/or other intellectual property right held by others.

C. To the fullest extent permitted by law, Contractor shall save, defend, hold harmless, and fully indemnify the City and all its officers and employees connected with the Project, and all of their officers, agents, members, employees, authorized representatives, or any other persons deemed necessary by any of them acting within the scope of the duties entrusted to them, from all damages, claims for damage, costs, or expenses in law or equity, including attorney's fees and costs, that may at any time arise or be set up for any infringement or unauthorized use of any patent rights, copyrights, trademarks, or other intellectual property claims by any person in consequence of the use by the City, or any of its officers, agents, members, employees, authorized representatives, or any other person deemed necessary by any of them acting within the scope of the duties entrusted to them, of articles to be supplied under the Contract and of which Contractor is not the patentee or assignee or does not have the lawful right to sell the same.

1. This indemnity provision is in addition to all other hold harmless and indemnity clauses in the Contract Documents and shall survive Final Completion and termination of the Contract. The notice, cooperation, and control of defense provisions set forth in Paragraph 3.20 shall apply to this intellectual property indemnity.

D. If the City is enjoined from the operation or use of the Work, or any part thereof, as a result of any suits or claims for infringement or unauthorized use of a patent right, copyright, trademark, and/or other intellectual property right, Contractor shall, at its sole expense and at no cost to the City, take reasonable steps to procure the right to operate or use the Work. If Contractor cannot so procure such right within a reasonable time, Contractor shall promptly, at Contractor's sole expense and at no cost to the City, (i) modify the Work,

consistent with applicable requirements of the Contract Documents, so as to avoid infringement of any such intellectual property right, or (ii) replace said Work with work that meets applicable requirements of the Contract Documents and that does not infringe or violate any such intellectual property right.

E. Subparagraphs 3.17C and 3.17D, above, shall not apply to any suit, claim, or proceeding based on infringement or violation of a patent right, copyright, trademark, and/or other intellectual property right (i) arising from any unauthorized modifications to the Work by the City or its agents or (ii) arising from the combination of Work with any products or services not provided or recommended by Contractor where the combination is the basis for infringement.

3.18 WARRANTY

A. Contractor warrants and guarantees to the City that materials and equipment provided under the Contract shall be at least of the quality specified and new unless otherwise required or permitted by the Contract Documents and if no quality is specified, then the materials and equipment shall be of commercial grade, suitable for heavy public use in facilities of similar size and complexity; that the Work will be free from defects, and that the Work will conform to the requirements of the Contract Documents.

1. Contractor additionally warrants manufacturers' product warranties: (i) for the Guarantee-to-Repair Period; and (ii) for any duration that may be specified in the Contract Documents for any particular product.

B. Contractor's warranty excludes damage or defects caused by abuse, modifications to equipment by the City and not authorized by Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear. Testing shall not be construed as operation.

C. Contractor shall deliver product warranties and guarantees conforming to the requirements of the Specifications to the City Representative prior to Final Completion. Compliance with this requirement is a condition precedent to Contractor's achievement of Final Completion the City's obligation to issue a final payment.

D. The warranty provisions of this Paragraph 3.18 are separate and additional to the provisions for the Guarantee to Repair Period and correction of Non-conforming Work as specified in Article 8.

3.19 TAXES

Contractor shall be responsible for paying all taxes applicable during the performance of the Work or portions thereof, whether or not said taxes were in effect on or increased after the date of Bid opening.

3.20 INDEMNIFICATION

A. Consistent with California Civil Code section 2782, Contractor shall assume the defense of, indemnify and hold harmless the City, its boards and commissions, and all of their officers, agents, members, employees, authorized representatives, or any other persons deemed necessary by any of them acting within the scope of the duties entrusted to them, from all

claims, suits, actions, losses, and liability of every kind, nature and description, including but not limited to attorney's fees, directly or indirectly arising out of, connected with or resulting from the performance of the Work. This indemnification shall not be valid in the instance where the loss is caused by the sole negligence or willful misconduct of any person indemnified herein. Contractor's obligations under this Paragraph apply regardless of whether or not such claim, suit, action, loss, or liability was caused in part or contributed to by an Indemnitee. However, without affecting the rights of the City under any provision of this Contract, Contractor shall not be required to indemnify and hold harmless City for liability attributable to the active negligence of City, provided such active negligence is determined by agreement between Contractor and City or by the findings of a court of competent jurisdiction. In instances where City is shown to have been actively negligent and where City's active negligence accounts for only a percentage of the liability involved, the obligation of Contractor will be for that entire portion or percentage of liability not attributable to the active negligence of City.

1. In addition to Contractor's obligation to indemnify City, Contractor specifically acknowledges and agrees that it has an immediate and independent obligation to defend City from any claim which actually or potentially falls within this indemnification provision, even if the allegations are or may be groundless, false, or fraudulent, which obligation arises at the time such claim is tendered to Contractor by City and continues at all times thereafter.

B. Contractor acknowledges that any claims, demands, losses, damages, costs, expenses, and legal liability that arise out of, result from, or are in any way connected with the release or spill of any legally designated hazardous material or waste or contaminated material as a result of the Work performed under this Contract are expressly within the scope of this indemnity, and that the costs, expenses, and legal liability for environmental investigations, monitoring, containment, removal, repair, cleanup, restoration, remedial work, penalties, and fines arising from the violation of any local, state, or federal law or regulation, attorney's fees, disbursements, and other response costs are expressly within the scope of this indemnity.

C. The City and other indemnified parties specified in subparagraph 3.20A shall provide Contractor with prompt written notice after receipt of any claim, action, or demand ("claim") made by a third party against the City and/or other indemnified party, provided, however, that no delay on the part of the City or other indemnified party shall relieve Contractor from any obligation hereunder. Contractor shall obtain the City's and other indemnified parties' consent for Contractor's choice of counsel and such consent shall not be unreasonably withheld or delayed, such that any responsive pleadings may be timely filed, and in every instance, within 30 days after City or other indemnified party has given notice of the claim, and provided further that City and other indemnified parties may retain separate co-counsel at their expense and participate in the defense of the claim. If the interests of Contractor and the City and/or other indemnified party conflict and counsel chosen by Contractor cannot, in City's or other indemnified parties' reasonable opinion, adequately represent Contractor, City, and/or other indemnified party, then the cost and expense associated with the City and/or other indemnified party retaining separate co-counsel shall be borne by Contractor; otherwise, the cost and expense of separate co-counsel retained by City and/or other indemnified party shall be borne by the City or other

indemnified party, as applicable. Subject to Contractor's obligation to reimburse City's and other indemnified parties' costs of same, City and other indemnified parties will assist Contractor in the defense of the claim by providing cooperation, information, and witnesses, as needed to the extent there is no material conflict of interest.

1. So long as Contractor has assumed and is conducting the defense of a claim in accordance with the preceding subparagraph, (i) Contractor will not consent to the entry of any judgment or enter into any settlement with respect to the claim without the prior written consent of City or other indemnified party, as applicable, which consent will not be unreasonably withheld, unless the judgment or proposed settlement involves only the payment of money damages by Contractor and does not impose any obligation upon City and/or other indemnified party in connection with such judgment or settlement and Contractor obtains the full and complete release of City and/or other indemnified parties; and (ii) City and/or other indemnified parties will not consent to the entry of judgment or enter into any settlement without the prior written consent of Contractor.
2. If Contractor does not assume and conduct the defense of any claim as required above, (i) City or other indemnified party may defend against, and consent to, the entry of any judgment or enter into any settlement with respect to the claim in any manner reasonably deemed appropriate, and City or other indemnified party need not consult with, or obtain any consent from, Contractor, and (ii) Contractor will remain responsible for any losses City and/or other indemnified party may suffer resulting from, arising out of, relating to, in the nature of, of caused by the claim to the fullest extent provided in this Paragraph 3.20.

D. Contractor's liability shall not be limited to the amount of insurance coverages required under the Contract Documents.

E. In the event that Contractor and its insurance carrier(s) in bad faith refuse to negotiate and compensate a third party or parties for property damage or personal injuries which arise out of Contractor's performance of the Work, the City shall have the right to estimate reasonably and in good faith the amount of damages and to pay the same, and City will deduct the amount so paid from the amount due to Contractor under this Contract, or the City will retain an appropriate amount from the amount due to Contractor under this Contract until all suits or claims for said damages shall have been settled or otherwise disposed of and Contractor has provided satisfactory evidence to that effect to the City.

F. The defense and indemnity obligations of this Paragraph shall survive Final Completion and termination of this Contract. Contractor's defense and indemnity obligations shall extend to claims arising after the Work is completed and accepted if the claims are directly related to alleged acts or omissions by Contractor that occurred during the course of the Work.

3.21 COMPLIANCE WITH LAWS; INDEMNIFICATION

A. Contractor shall keep itself fully informed of and comply with the Charter, ordinances, and regulations of the City and other local agencies having jurisdiction over the Work, and all federal and state laws, regulations, orders, or decrees in any manner affecting or applicable to the Contract Documents, the performance of the Work, or those persons engaged therein.

B. Contractor shall provide all construction and materials specified by the Contract Documents in full accordance with the latest laws and requirements, or the same as may be amended, updated or supplemented from time to time, of the Code specified in the Contract Documents, Americans with Disability Act Accessibility Guidelines, CAL-OSHA, the State Division of Industrial Safety of the Department of Industrial Relations, the Division of the State Architect – Access Compliance, the Public Utilities Commission of the State of California, the State Fire Marshal, the National Fire Protection Association, the San Francisco Department of Public Health, state and federal laws and regulations, and of other bodies or officials having jurisdiction or authority over same, and Contractor and any and all persons, firms and corporations employed by or under it shall observe and comply said laws and requirements.

C. As required by and in accordance with the procedures specified in Paragraph 3.20 Indemnification, Contractor shall assume the defense of, indemnify and hold harmless the City, its boards and commissions, and all of their officers, agents, members, employees, authorized representatives, or any other persons deemed necessary by any of them acting within the scope of the duties entrusted to them, from all claims or liability arising from the violation of law, regulation, order, or decree by Contractor or its Subcontractors or Suppliers of all tiers in connection with or resulting from performance of the Work.

D. If the City incurs any fines or penalties because of Contractor's (or a Subcontractor's or Supplier's) failure to comply with a law, regulation, order, or decree, the City may deduct the amount of the fine or penalty from the Contract Sum.

E. Authorized persons may at any time enter upon any part of the Work to ascertain whether Contractor is complying with applicable laws, regulations, orders, or decrees. Contractor shall promptly notify the City Representative if a regulatory agency requests access to the job site or to records. Contractor shall provide the City Representative with a list of documents provided to the regulatory agency and enforcement actions issued against Contractor.

F. Contractor shall not be entitled to any increase in the Contract Time or Contract sum as a result of Contractor's compliance with this Paragraph 3.21.

3.22 LIABILITY OF CONTRACTOR – CONSEQUENTIAL DAMAGES

Contractor shall have no liability to City for any type of special, consequential, or incidental damages arising out of or connected with Contractor's performance of the Work. This limit of liability applies under all circumstances including, but not limited to, the breach, completion, termination, suspension, or cancellation of the services under this Contract, and negligence or strict liability of Contractor. This limit of liability shall NOT, however, apply to, limit or preclude: (i) Contractor's obligation to pay Liquidated Damages as set forth in the Contract Documents; (ii) damages caused by Contractor's gross negligence, reckless conduct, willful acts or omissions, fraud or illegal or unlawful acts; (iii) Contractor's obligations to indemnify and defend the City and other indemnified parties as set forth in the General Conditions (Section 00 72 00); (iv) Contractor's liability for any type of damage to the extent such damage is required to be covered by insurance as specified in the Contract Documents; (v) wrongful death caused by Contractor; (vi) punitive or treble damages; (vii) Contractor's liability for damages expressly provided for

in this Agreement, including without limitation statutory damages imposed by the City upon Contractor under the City Ordinances and Municipal Codes specified in this Agreement; and (viii) Contractor's warranties and guarantees under the Contract Documents.

ARTICLE 4 - SUBCONTRACTORS

4.01 SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

A. Under section 1725.5 of the California Labor Code, all Subcontractors who bid or work on a public works project must register and pay an annual fee to the California Department of Industrial Relations. No unregistered Subcontractor, regardless of the dollar amount of subcontract work, is eligible for award of a public works contract. Contractor shall not employ a Subcontractor that does not maintain a current registration with the California Department of Industrial Relations to perform Work on this Project.

B. Unless otherwise specifically provided by the Contract Documents, Contractor shall only engage in subcontracting in accordance with the governing regulations regarding subcontracts, section 6.21 of the Administrative Code, and section 1771.1 of the California Labor Code. Section 6.21 and section 1771.1 shall govern the designation of, failure to specify, and substitution of Subcontractors and the assignment, transfer, and performance of subcontracts.

C. Contractor shall not employ a Subcontractor, Supplier, or other person or entity that the City has determined unqualified or non-responsible. The City may give written notice of such determination prior to award of the Contract or at any time during the Contract Time, and upon receipt thereof Contractor shall provide replacement with a qualified person or entity. The City shall have the right of approval and shall not be responsible for added costs to Contractor, if any, of employing such replacement person or entity.

4.02 SUBCONTRACTUAL RELATIONS

Contractor shall have an appropriate written agreement specifically binding each Subcontractor or Supplier to Contractor by the applicable terms and conditions of the Contract Documents, in the same manner Contractor is bound to the City. Each subcontract agreement shall preserve all rights of the City with regards to the Work to be performed by the Subcontractor or Supplier. Contractor shall be responsible for ensuring that all Subcontractors and Suppliers have similar agreements with Lower-Tier Subcontractors and Lower-Tier Suppliers and shall be responsible to the City for any and all damages arising out of Contractor's failure to meet this obligation. Contractor shall give all Subcontractors and Suppliers copies of the contract documents to which the Subcontractor or Supplier will be bound, and upon written request of the Subcontractor or Supplier, Contractor shall identify written terms and conditions of its proposed subcontract agreement that vary from the Contract Documents. Subcontractors and Suppliers shall fulfill the same requirements toward their respective proposed Lower-Tier Subcontractors and Lower-Tier Suppliers.

4.03 ASSIGNABILITY OF SUBCONTRACTS

A. Contractor shall ensure all subcontracts of Subcontractors and Lower-Tier Subcontractors and purchase agreements of Suppliers and Lower-Tier Suppliers are freely assignable to the City under the following conditions:

1. The City terminates the Contract for cause under provisions of Article 14;
2. The City requests such assignment; and
3. The surety providing the performance bond for the Project fails timely to fulfill its obligations under the performance bond.

B. The City will notify the Subcontractors and Lower-Tier Subcontractors and Suppliers in writing of those agreements the City wishes to accept.

4.04 SUCCESSORS AND ASSIGNS

A. Contractor shall constantly give its personal attention to the faithful prosecution of the Work. Contractor shall keep the Work under its personal control and shall not assign by power of attorney or otherwise, nor subcontract the whole or any part thereof, except as herein provided.

B. Contractor shall conduct all transactions with Subcontractors, and no Subcontractor may relieve Contractor of any of its liabilities or obligations under the Contract.

C. When a Subcontractor fails to prosecute a portion of the Work in a manner satisfactory to the City, Contractor shall remove such Subcontractor immediately upon written request of the City, and following a reasonable cure period designated by the City in its sole discretion, Contractor shall submit to City a proposed replacement Subcontractor, subject to City's approval, to perform the Work in accordance with Administrative Code section 6.21(a)(9) and the Subletting and Subcontracting Fair Practices Act, California Public Contract Code section 4100 et seq., at no added cost to the City.

D. Contractor shall not assign the Contract to any other party except upon the written approval of the City in accordance with Administrative Code section 6.22(d).

ARTICLE 5 - CONSTRUCTION BY CITY OR BY SEPARATE CONTRACTORS

5.01 CITY'S RIGHT TO PERFORM CONSTRUCTION AND TO AWARD SEPARATE CONTRACTS

A. Should the Contract Documents indicate that construction work, or work of any other nature, be performed by other contractors or other forces within or adjacent to the limits of Work, or be underway at the time the Work was advertised for Bids, Contractor shall cooperate with all such contractors or forces to the end so as to avoid delay or hindrance to their work. The cost of such cooperation shall be considered as included in Contractor's Bid price and no direct or additional payment will be made therefor.

B. The City reserves the right to perform other or additional work within or adjacent to the limits of Work at any time during the Contract by the use of other forces or contractors. If the performance of such other or additional work not indicated in the Contract Documents

or underway at the time of advertising for Bids materially increases Contractor's costs, then Contractor may submit a Change Order Request therefor in accordance with Paragraph 6.03.

C. If the City gives Contractor written notice to vacate a location so that other work may be performed by other forces or contractors at the location(s) where Contractor is already performing Work, Contractor shall promptly suspend Work at that location and clean up and demobilize its operations from the location to the extent necessary as determined by the City to allow the other forces or contractors to perform their work. Contractor shall provide the City Representative written notice when it has completed cleanup and demobilization. The City Representative will issue to the other forces or contractors a notice to proceed with their work. After the date of said notice to proceed, Contractor shall allow proper and safe access to the Work at the subject location and shall schedule and coordinate its Work with the other contractors' work.

D. If Contractor requires access to a location where another contractor is performing work, Contractor shall request such access in writing from the City Representative. The City Representative will provide written notice to Contractor when the work of other forces or contractors at the subject location is completed, and upon receipt of such notification, Contractor shall have full access and shall commence or resume its operations in that location.

E. If Contractor believes it is entitled to a time extension caused by its obligations under subparagraphs 5.01C or 5.01D above, it shall comply with the notification requirements of Paragraph 7.02.

F. When it is necessary for Contractor and another contractor or utility owner to work in the same location at the Site, each party shall coordinate and cooperate with the other party at no additional cost to the City.

G. In case of dispute or lack of coordination between Contractor and other contractor(s) or the City, the City Representative will issue a written directive(s) resolving the dispute or addressing the lack of coordination, and Contractor shall follow any such directive(s) subject to its right to seek time and/or money under the terms of the Contract Documents as compensation for the impact of complying with the directive(s).

H. Contractor agrees to indemnify, defend, and hold the City harmless for all claims or losses that the other contractors may incur as a result of their inability to reasonably obtain work areas under the control of the Contractor.

5.02 COORDINATION

A. Contractor shall afford other contractors and the City reasonable opportunity for storage of materials at the Site, shall ensure that the execution of the Work properly coordinates with work of such contractors, and shall cooperate with such other contractors to facilitate the progress of the Work in such a manner as the City may direct.

B. Notice of Conflicting Conditions: Where Contractor's Work is adjacent to or placed on top of that of another contractor, Contractor shall examine the adjacent work and substrate and report in writing to the City any visible defect or condition preventing the proper execution

or increased cost of its Contract. If Contractor proceeds without giving notice, it shall be held to have accepted the work or material and the existing conditions, and shall be responsible for any defects in its own Work consequent thereon, and shall not be relieved of any obligation or any guarantee because of any such condition or imperfection. This provision shall be included in any and all other contracts or subcontracts for Work to be performed where such a conflict could exist.

1. The foregoing does not apply to latent defects. Contractor shall report to the City latent defects in another contractor's work promptly upon discovery.

C. Contractor shall notify the City promptly in writing when another contractor working at the Site fails to coordinate its work with the Work of this Contract as directed.

D. Any difference or conflict that may arise between Contractor and the other contractors or City forces in regard to their work shall be adjusted as determined by the City.

E. If so directed by the City, Contractor shall prepare coordination drawings as necessary to coordinate and interface the Work of its Contract with the work of all other contracts thereby avoiding conflicts that may otherwise arise. If such coordination drawings are not required elsewhere in the Contract Documents, then Contractor may submit a Change Order Request as provided under Paragraph 6.03 for additional costs incurred by it in preparation of such coordination drawings.

F. At any time during the progress of the Work, the City may, by providing reasonable notice, require Contractor to attend any conference of any or all of contractors engaged in the Work.

G. If the City determines that Contractor is failing to coordinate its Work with the work of other contractors as directed, the City may upon 72 hour written notice:

1. Withhold any payment otherwise owed under the Contract until Contractor complies with the City's directives; or
2. Direct others to perform portions of the Contract and charge the cost of the Work against the Contract Sum; or
3. Terminate any or all portions of the Contract for Contractor's failure to perform in accordance with the Contract.

5.03 CLEAN UP RESPONSIBILITIES

A. Contractor and other contractors shall each bear responsibility for maintaining their respective work areas on the premises and adjoining areas free of waste, rubbish, graffiti, debris, or excess materials and equipment at all times.

B. In the event of conflicts, the City, after issuing 24 hour written notice to the contractors involved, will clean up the premises and deduct from the Contract Sum the proportionate cost of said cleanup that is attributed to Contractor's failure to clean up its work area.

ARTICLE 6 - CLARIFICATIONS AND CHANGES IN THE WORK

6.01 GENERALLY

A. The City may, at any time between the date of issuance of Notice to Proceed and the date of issuance of Final Completion and without notice to Contractor's surety, order additions, deletions, or revisions in the Work by Change Order, Unilateral Change Order, or Field Order. Contractor shall promptly comply with such orders and proceed with the Work, which shall be performed under the applicable requirements of the Contract Documents.

B. Contractor shall not be entitled to an increase in the Contract Sum or an extension of the Contract Time if Contractor performs work that is not required by the Contract Documents as amended, modified, or supplemented in writing.

C. The procedures set forth in this Article 6 are intended to ensure that when Clarifications and Changes in the Work are proposed, the Contractor provides the City with its best estimate of the costs and impacts associated with each Clarification and/or Change, so that the City may evaluate each potential Change and proceed on an informed basis. The City also intends that the Clarification and Change Order procedures (including the use of Unilateral Change Orders and Force Account) facilitate payment to the Contractor of additional, undisputed amounts.

D. Failure by the Contractor to comply with the procedures of this Article, including the failure to provide timely, sufficient information and/or documentation to the City at the time of any Clarification or Change Order Request, shall constitute a waiver of any subsequent claim by the Contractor arising out of such Clarification or Change Order.

6.02 REQUESTS FOR INFORMATION, CLARIFICATIONS, AND FIELD ORDERS

A. Should there appear to Contractor to be a discrepancy in the Contract Documents, should questions arise as to the meaning or intent of the Contract Documents, or should the City's comments on submittals returned to Contractor appear to Contractor to change the requirements or scope of the Contract Documents, Contractor shall submit a Request for Information ("RFI") to the City promptly in accordance with Section 01 31 00 (Project Management and Coordination). Contractor shall coordinate and schedule its Work to provide the City sufficient time to issue a written reply to the RFI before proceeding with Work affected thereby.

B. The City will issue a reply to the RFI within 10 working days of receipt of the same. The reply may include written Clarifications as deemed by the City to be necessary and consistent with the Contract Documents, or a Field Order requiring minor changes in the Work.

C. Clarifications of the Contract Documents and Field Orders issued by the City shall be binding on Contractor and shall be promptly executed by Contractor. The City's right to clarify any element of the Contract Documents shall not be construed to entitle Contractor to a modification of the Contract Sum or a change in the Contract Time.

6.03 CHANGE ORDER REQUESTS AND PROPOSED CHANGE ORDERS

A. COR Initiation: Should the City's Clarification or other written directive or determination, in the opinion of Contractor, materially exceed or change the requirements of the Contract Documents, Contractor shall submit to the City a written Change Order Request ("COR") within 10 working days of receipt of the Clarification or other written directive or determination. A COR shall reference the Clarification or other written directive or determination and the relevant Specification and Drawings, and clearly state reasons why a change is needed. Contractor's COR shall also include a cost proposal and/or a time adjustment proposal, as a good faith estimate of any additional compensation or time associated with the affected Work, documented in accordance with subparagraphs 6.03E and 6.03F, below, and a narrative describing the scope of the COR including means and methods, sequence of Work, and other information necessary to fully understand the scope of the COR. The COR shall also include, as a minimum standard, quantity take offs and extensions identifying equipment and material against a specific Work task within the scope. Failure to submit a timely, fully documented COR shall constitute a waiver by the Contractor of any future claim for additional compensation or time relating to such Work.

B. COR Review: The City will review the COR. Within 10 working days after receipt of the COR and all required supporting documentation, the City will issue a written determination accepting or rejecting the COR in whole or in part. If the City requires additional time to issue a determination, it shall notify the Contractor of the same in writing, within the initial 10 working-day period. A final determination is any City determination on a COR stating that it is final. If the City issues a final determination denying a COR in whole or in part, Contractor may contest the decision by filing a timely Notice of Potential Claim in accordance with Article 13 of these General Conditions. If the City does not issue a determination within the 10 working-day period, or such other period as set forth in a written notice, then the COR is deemed rejected and Contractor shall treat the City's failure to issue a determination as the City's issuance, on the last day of the applicable period, of a final decision denying the COR in its entirety.

C. PCO Initiation: The City may initiate a change in the Work by issuing a Proposed Change Order ("PCO"). A PCO will include a detailed description of the proposed additions, deletions, or revisions with supplementary or revised Drawings and Specifications, and will request from Contractor a quotation of cost and time for completing the proposed changes. After the City issues a PCO, Contractor shall not submit a COR for the same Work addressed in the City's PCO.

D. PCO Quotation Time Period: Contractor shall submit a PCO cost proposal and PCO time adjustment proposal, if applicable, to the City within 10 working days after receipt of a PCO. If Contractor fails to submit a PCO cost proposal and/or PCO time adjustment proposal within the 10 working-day period, or if the price or time adjustment cannot be agreed upon, the City may either direct Contractor to proceed with the Work on a Force Account basis or issue a Unilateral Change Order instructing Contractor to proceed with the PCO Work based on the City's estimate of the cost and/or time adjustment.

E. COR and PCO Cost Proposal Requirements: The Cost Proposal shall include a complete itemized breakdown of labor, material, equipment, taxes, insurance, bonds, and markup for overhead and profit for both additions and deletions on a form supplied by the City. The

same shall be required for Subcontractor and Lower-Tier Subcontractor Cost Proposals, which shall be furnished on the same form as required for Contractor. Contractor, Subcontractors, and Lower-Tier Subcontractors shall calculate the markup for overhead and profit for all Cost Proposals exclusively pursuant to subparagraph 6.06C.

1. At a minimum, Contractor shall provide the following documentation to the City in support of Contractor and Subcontractor cost proposals:

   a. material quantities and type of products;

   b. labor breakdown by trade classification, wage rates, and estimated hours; and

   c. equipment breakdown by make, type, size, rental rates, and equipment hours

F. COR and PCO Time Adjustment Proposal Requirements: If Contractor asserts it is entitled to an adjustment in Contract Time due to the proposed change order work, whether by COR or PCO, Contractor shall provide the following documentation to the City in support of any Contractor and Subcontractor time adjustment proposals:

1. Contractor shall submit to the City a CPM time impact evaluation using sub-network or fragmentary network and including a written narrative and a schedule diagram or other written documentation acceptable to the City, showing the detailed work activities involved in a change that may affect the Critical Path and increase the Contract Time. The analysis shall also show the impact of the change on other Work and activities of the proposed schedule adjustment. This sub-network shall be tied to the complete and most current City-accepted progress schedule network, with appropriate logic so that a true analysis of critical path can be made.

2. Contractor's failure to comply with the requirements set forth in this subparagraph 6.03F shall constitute Contractor's waiver of any claim for delay, disruption, extended overhead, and other associated costs or damages.

6.04 CHANGE ORDERS

A. Execution of Change Orders; Modifications: When the City and Contractor agree on the total cost and time of a COR or PCO, the City will prepare for signatures of parties a Change Order to implement the changed Work. No oral instructions of any person whomsoever shall in any manner or degree modify or otherwise affect the terms of this Contract. Change Orders that result in an increase to the amount certified by the Controller for the Project are subject to the Certification by Controller requirements of the City's Charter (see Section 00 52 00, Agreement Form) and are effective upon incorporation into an approved Modification.

B. Release of Claims: The parties agree to make good faith efforts to settle all Change Orders full and final at the time of Change Order execution. Accordingly, City and Contractor acknowledge and agree that Change Orders shall contain the following provision, unless and only if the City determines that good cause exists to use different release language for a specific change order:

"The compensation (time and cost) set forth in this Change Order comprises the total compensation due to Contractor, all Subcontractors and all Suppliers and Lower-Tier Subcontractors and Suppliers, for the Work or change defined in the Change Order,

including impact on unchanged Work. By executing this Change Order, Contractor acknowledges and agrees on behalf of itself, all Subcontractors, and all Suppliers, that the stipulated compensation includes payment for all Work contained in the Change Order, plus all payment for the interruption of schedules, extended field and home overhead costs (if any), delay, and all impact, ripple effect, or cumulative impact on all other Work under this Contract. The execution of this Change Order indicates that the Change Order constitutes full mutual accord and satisfaction for the change, and that the time and/or cost under the Change Order constitutes the total equitable adjustment owed the Contractor, all Subcontractors, and all Suppliers as a result of the change. The Contractor, on behalf of itself, all Subcontractors, and all Suppliers, agrees to waive all rights, without exception or reservation of any kind whatsoever, to file any further claim related to this Change Order. No further claim or request for equitable adjustment of any type for any reasonably foreseeable cause shall arise out of or as a result of this Change Order or the impact of this Change Order on the remainder of the Work under this Contract."

C. City's issuance of Change Orders under this Article or extensions of Contract Time made necessary by reason thereof shall not in any way release any guarantees or warranties given by Contractor under the provisions of the Contract Documents, nor shall they relieve or release Contractor's sureties of bonds executed under such provisions. The sureties, in executing such bonds, shall be deemed to have expressly agreed to any such Change Orders and to any extension of time made by reason thereof. Contractor shall be responsible for giving notice of any change affecting the Work, Contract Sum, or Contract Times that is required to be given to its sureties by the provisions of any bond.

6.05 UNILATERAL CHANGE ORDERS

A. General: When time does not allow for a Change Order to be negotiated, or when the City and Contractor are unable to agree on the cost or time required to complete the change in the Work, the City may issue a Unilateral Change Order instructing Contractor to proceed with a change in the Work based on the City's estimate of cost and time to perform the change in the Work. Upon receipt of a Unilateral Change Order, Contractor shall proceed with the ordered Work.

B. Protest: If time did not allow for Contractor to submit a complete Cost and/or Time Adjustment Proposal prior to the issuance of a Unilateral Change Order, and Contractor disagrees with any terms or conditions set forth in a Unilateral Change Order and wishes to protest the Unilateral Change Order, Contractor may submit, within 10 working days of receipt of the Unilateral Change Order, a complete Change Order Request ("COR") in accordance with the requirements of Paragraph 6.03 (including a complete Cost and/or time Adjustment Proposal, as applicable). If Contractor does not timely submit a COR in conformance with the requirements of Paragraph 6.03, Contractor waives all rights to additional compensation for said Work and City will make payment of the amount set forth in the Unilateral Change Order, which shall constitute full compensation for Work included in the Unilateral Change Order. The City will review any COR submitted pursuant to this Paragraph and issue a determination in accordance with Paragraph 6.03. If the City denies the COR in whole or in part, Contractor may contest the decision by filing a timely Notice of Potential Claim in accordance with subparagraph 6.05C. As a point of clarification, the protest procedures specified in this subparagraph do not apply to circumstances where Contractor submitted a complete Cost Proposal and/or Time Adjustment Proposal prior to

the issuance of the Unilateral Change Order at issue, and the City subsequently issued a Unilateral Change Order because the parties were unable timely to agree on the cost and/or time to complete the change in the work. In such circumstances, if Contractor disagrees with any terms or conditions set forth in the Unilateral Change Order and wishes to pursue the dispute, Contractor must submit a timely Notice of Potential Claim in accordance with subparagraph 6.05C (but does not have to submit a revised/new COR).

C. Claim Notification: Contractor waives all costs exceeding the City's estimate for Unilateral Change Order Work unless Contractor timely submits a written Notice of Potential Claim in accordance with the requirements of Article 13. Contractor must submit any such Notice no later than 10 working days after occurrence of one of the following potential claim events, whichever occurs first:

1. Contractor submits an invoice for completion of the Unilateral Change Order Work; or
2. Upon Contractor's receipt of written notice from the City that the City considers the Unilateral Change Order Work completed.

6.06 COST OF CHANGE ORDER WORK

A. For Change Order Work and Change Order Work proposal pricing, City will pay Contractor the sum of the direct costs for labor, materials, and equipment used in performing the Work as determined by the procedures set forth in this subparagraph 6.06A.

1. Labor. City will pay Contractor the cost of labor for the workers used in the actual and direct performance of the Change Order Work. Working foremen will be considered a direct cost of the Change Order Work only if the individual is on Site physically installing the Work. The costs for all supervision, including general superintendents and foremen, shall not be considered a direct cost and shall be included the markup defined in subparagraph 6.06B, below. The cost of labor, whether the employer is Contractor, a Subcontractor, or other forces, will be the sum of the following:

   a. Actual Wages. The actual wages paid shall include any actual payments by the employer for its workers' health and welfare, pension, vacation, training, and similar purposes.

   b. Labor Surcharge. To the actual wages, as defined above, add a labor surcharge as set forth in the version of the California Department of Transportation publication entitled Labor Surcharge and Equipment Rental Rates that is in effect on the date upon which the extra work is accomplished. That labor surcharge shall constitute full compensation to Contractor for all of its costs for workers' compensation insurance, Social Security, Medicare, federal unemployment insurance, state unemployment insurance, and state training taxes. City shall not be obligated to pay any other fixed labor burdens, unless approved in writing by the City.

   c. Subsistence and Travel Allowance. The actual subsistence and travel allowance paid to such workers.

2. Materials: City will pay Contractor on Change Orders only for those materials furnished by Contractor and directly required for performing the Change Order Work. The cost of such material shall be the direct cost, including sales tax, to the purchaser,

whether Contractor, Subcontractor, or Lower-Tier Subcontractor, from the Supplier thereof and may include the cost of transportation, but delivery charges will not be allowed unless the delivery is specifically required for the Change Order Work. If a trade discount by an actual Supplier is available to Contractor, Contractor shall credit to the City such discount notwithstanding the fact that such discount may not have been taken. If the materials are obtained from a Supplier or source owned wholly or in part by Contractor, City's payment thereof shall not exceed the current wholesale price for the materials as determined by the City. The term "trade discount" includes the concept of cash discounting.

3. Equipment: City will pay for equipment costs on Change Orders at the rental rates listed for such equipment as specified in the current edition, at the time of the Change Order, of: the Labor Surcharge & Equipment Rental Rate Book (including its supplement Miscellaneous Equipment Rental Rates) published by the California Department of Transportation and available for download at https://dot.ca.gov/programs/construction/equipment-rental-rates-and-labor-surcharge.

   As deemed appropriate, City will adjust such rental rates and will use them to compute payments for equipment, regardless of whether the equipment is under Contractor's control through direct ownership, leasing, renting, or other method of acquisition; provided, however, for equipment rented or leased in arm's length transactions with outside vendors, City will reimburse Contractor at the actual rental or leased invoice rates when such rates are reasonably in line with the applicable rates specified in the publications identified above as determined by the City. Arm's length rental or lease transactions are those in which the firm involved in the rental or lease of such equipment is not associated with, owned by, have common management, directorship, facilities, or stockholders with the firm renting the equipment. Contractor has the burden of proof to demonstrate that a rental or lease transaction was an arm's length transaction. Contractor shall submit copies of all rental or lease invoices, and other information as requested by the City, if any, as supporting documentation with each PCO cost proposal.

   For equipment that is not listed in the publication identified above, City will base payment for equipment costs on the City' assessment of the reasonableness of rates in arm's length rental or lease transactions on the lowest quote obtained by the City from CALTRANS. Contractor shall provide all necessary equipment ownership and other information as requested by the City so that the City may obtain a quote. CALTRANS will quote rental rates at no cost to the City.

   a. City will pay for equipment based on daily, weekly, or monthly rates, whichever are lower. City will not pay for equipment based on hourly rates including operator. Unless otherwise specified, Contractor shall use manufacturer's ratings and manufacturer-approved modifications to classify equipment for determination of applicable rental rates. If, however, Contractor or Subcontractor or Lower-Tier Subcontractor uses equipment of unwarranted size or type and cost, it shall calculate the cost at the rental rate for equipment of proper size and type.

   b. City will pay for equipment only for the time the equipment is in productive operation on the Work under the Change Order. City shall not be obligated to pay

for equipment for time while equipment is inoperative due to breakdown or for non-work days. In addition, City shall not be obligated to pay for any equipment rental time required to move the equipment to and from the Site. City will pay for equipment loading and transportation costs, in lieu of rental time, only if the equipment does not move under its own power and is utilized solely for the Work of the Change Order. City shall not be obligated to pay for mobilization or demobilization for equipment already on the Site. City will reimburse Contractor for equipment that is idle, non-operating, or in standby mode at the lesser of Caltrans' rates, as adjusted by Caltrans' Delay Factor as adjusted by its standby calculation, unless such equipment is rented or leased as provided above.

c. Individual pieces of equipment having a replacement value of $1,000 or less shall be considered to be small tools or small equipment; City will not pay for such tools and equipment since the costs of these tools and equipment are included as part of Contractor's markup for overhead and profit as defined in subparagraph 6.06B.

d. Payment to Contractor for the use of equipment as set forth herein shall constitute full compensation to Contractor for the cost of fuel, power, oil, lubricants, supplies, small equipment, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, labor (except for equipment operators), and any and all costs to Contractor incidental to the use of the equipment.

B. Costs Included as Part of Markup for Overhead and Profit: To the total of the direct costs computed as provided in subparagraph 6.06A, City will add a markup for overhead and profit as specified in subparagraph 6.06C. The markup shall constitute full compensation for all direct and indirect overhead costs and profit which shall be deemed to include all items of expense not specifically listed in subparagraph 6.06A as direct costs. City shall not be obligated to pay for any separate allowance or itemization for any overhead costs. The following is a list, not intended to be comprehensive, of the types of costs that are included in the markup for overhead and profit for all Change Orders including Force Account Work:

1. Field and home office personnel including, but not limited to, principals, project managers, superintendents, supervisory foremen, estimators, project engineers, detailers, draftspersons, schedulers, consultants, watchpersons, payroll clerks, administrative assistants, and secretaries.

2. All field and home office expenses including, but not limited to, field trailers; parking; storage sheds; office equipment and supplies; telephone service at the Site; long-distance telephone calls; fax machines; computers and software; internet and e-mail services; temporary utilities; sanitary facilities and services; janitorial services; small tools and equipment with a cost under $1,000 each; portable scaffolding; blocking; shores; appliances; job vehicles; security and fencing; conformance to all regulatory requirements including compliance with safety regulations, safety programs, and safety meetings; cartage; warranties; record documents; and all related maintenance costs.

3. Administrative functions including, but not limited to, reviewing, coordinating, distributing, processing, posting, recording, estimating, negotiating, scheduling,

schedule updating and revising, expediting, surveying, engineering, drawing, detailing, revising shop drawings, preparing record drawings, carting, cleaning, protecting the Work, and other incidental Work related to the Change Order.

4. Bond and Insurance costs.
5. All other costs and taxes required to be paid, but not included under direct costs as defined in subparagraph 6.06A.

C. Contractor's Markup(s) for Overhead and Profit:

1. Markup(s) for Contractor's Direct Work – City will pay Contractor the maximum Markup Percentage(s) in the table below applied to the total direct costs for each direct cost category to compensate Contractor fully for all indirect and overhead costs and profit:

Changed/Extra Work – Direct Costs	Markup Percentage
Contractor direct labor	35%
Contractor direct materials	15%
Contractor direct equipment	15%

2. Markups for Subcontractor's Direct Work:

a. For extra Work performed by a Subcontractor (of any tier), the City will pay Subcontractor (through the Contractor) the maximum Markup Percentage(s) in the table below applied to the total direct costs for each direct cost category to compensate Subcontractor fully for all indirect and overhead costs and profit:

Changed/Extra Work –Direct Costs	Markup Percentage
Subcontractor (of any tier) direct labor	35%
Subcontractor (of any tier) direct materials	15%
Subcontractor (of any tier) direct equipment	15%

b. For extra Work performed by a Subcontractor (of any tier), the City will pay Contractor a 10% markup applied to the Subcontractor's total direct costs. Such additional 10% markup shall compensate Contractor fully for all additional indirect, administrative, and overhead costs and profit associated with Change Order Work performed by the Subcontractor.

c. For extra Work performed by a Lower-Tier Subcontractor, the City will pay a 10% markup applied to the total direct costs of the extra Work to provide compensation for the Subcontractor in contractual privity with the Lower-Tier Subcontractor that performs the extra Work to compensate such Subcontractor for all of its overhead including but not limited to all additional indirect, administrative, and overhead costs and profit associated with extra Work performed by the Lower-Tier Subcontractor.

D. For Work deleted by Change Order ("deductive Change Order"), the reduction of the Contract Sum shall be computed on the basis of one or more of the following: (i) Unit

Prices stated in the Contract Documents; (ii) where Unit Prices are not applicable, a lump sum based upon the costs that Contractor would have been incurred in performing the deleted portions of the Work as calculated in accordance with Paragraph 6.06, supported by a Cost Proposal as required by Paragraph 6.03; and (iii) the deductive Change Order will include a 10% mark-up on the direct costs to reflect a credit to the City for Contractor's overhead and profit on the deleted Work. City shall not be obligated to compensate Contractor nor a Subcontractor or Lower-Tier Subcontractor for administering a deductive Change Order.

1. When both additions and credits are involved in any one Change Order, Contractor's markup shall be computed on the basis of its direct costs and labor productivity for the net change in the quantity of the Work. For example, if a Change Order adds 14 units on one Drawing and deletes 5 units on another Drawing, the markup shall be based on the net addition of 9 units. No markup will be allowed if the deductive cost exceeds the additive cost.
2. If the City issues written notice of deletion of a portion of Work after the commencement of such Work or after Contractor has ordered acceptable materials for such Work which cannot be cancelled, or if part or all of such Work is not performed by Contractor because it is unnecessary due to actual Site conditions, City will pay Contractor for direct costs of such Work actually performed plus markup for overhead and profit as provided in subparagraph 6.06C.
3. City shall not be obligated to compensate Contractor for costs incurred after Contractor receives the City's written notice deleting the portion of Work.
4. Materials ordered by Contractor prior to the City's issuance of a notice of deletion and paid for by the City shall become the property of the City, and the City will pay for the actual cost of any further handling of such material. If the material is returnable to the vendor, and if the City so directs, Contractor shall return the material and the City will pay Contractor only for the actual charges made by the vendor for returning the material including restocking charges.

E. Costs Not Included in the Work: Contractor shall be solely responsible for determining which of its Subcontractors and Suppliers receive Change Orders. City will not provide additional compensation to Contractor for the cost of its Subcontractors and Suppliers to review, post, coordinate, and perform related tasks to administer Change Orders that do not result in direct cost charges from such Subcontractors or Suppliers. City will consider such costs as normal business costs that are contractually determined between Contractor and its Subcontractors and Suppliers prior to Bid, and Contractor shall include such costs in its Total Bid Price.

F. Records: Contractor shall maintain its records in such a manner as to provide a clear distinction between the direct costs of Change Orders and the cost of original Contract Work. This requirement pertains to all types of Change Orders, as well as the additions, deletions, revisions, CORs, and Claims initiated by Contractor.

6.07 FORCE ACCOUNT WORK

A. General: When City pays for additions, deletions, or revisions in the Work on a Force Account basis, all direct costs itemized in subparagraph 6.06A shall be subject to the approval of the City and compensation will be determined as set forth herein.

1. The City will direct Contractor to proceed with the Work on a Force Account basis, and the City will establish a "not to exceed" budget.
2. All requirements regarding direct costs and markup for overhead and profit provided in subparagraph 6.06B shall apply to Force Account Work. However, the City will pay only the actual necessary costs verified in the field by the City on a daily basis.
3. Contractor shall be responsible for all costs related to the documentation, data preparation, and administration of Force Account Work. Compensation for such costs shall be fully covered by the markup for overhead and profit markup as provided in subparagraph 6.06C.

B. Notification and Verification: Contractor shall notify the City in writing at least 24 hours in advance of its schedule before proceeding with the Force Account Work. All Force Account Work must be witnessed, documented, and approved in writing by the City on the day that the Work is performed. City shall not be obligated to compensate Contractor for Force Account Work if Contractor fails to provide timely notice to the City before commencing the Force Account Work. In addition, Contractor shall notify the City when the cumulative costs incurred by Contractor for the Force Account Work equal 80% of the budget pre-established by the City. City shall not be obligated to compensate Contractor for Force Account Work exceeding the "not to exceed" budget amount if Contractor fails to provide the required notice before exceeding 80% of the Force Account budget.

C. Reports: Contractor shall diligently proceed with City-directed Force Account Work and shall submit to the City no later than 12:00 noon of the day following performance of Force Account Work a daily Force Account Work report on a form obtained from the City. The report must provide an itemized, detailed account of the daily Force Account labor, material, and equipment, including names of the individuals and the specific pieces of equipment identified by manufacturer's model type and serial number. Contractor shall include the total dollar amount associated with the respective form for each day so that the parties may track the cumulative costs noted herein. Contractor's authorized representative shall complete and sign the report. City shall not be obligated to compensate Contractor for Force Account Work if Contractor does not timely complete and submit the aforementioned report to the City.

D. Records: Contractor shall maintain detailed records of all Work done on a Force Account basis. Contractor shall provide a weekly Force Account summary indicating the status of each Force Account Work directive in terms of actual costs incurred as a percent of the budget for the respective Force Account Work directive and the estimated percentage completion of the Force Account Work.

E. Agreement: If Contractor and the City reach a negotiated, signed agreement on the cost of a Change Order while the Work is proceeding on a Force Account basis, Contractor's signed written reports shall be discontinued and all previously signed reports shall become invalid.

6.08 UNIT PRICE WORK

A. General: Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the City will deem the Contract Sum to include for all Unit Price Work an amount equal to the product of the established unit price proposed for each Item of Unit Price Work times the estimated quantity of each Item as indicated in the Schedule of Bid Prices. The estimated quantities of unit price items in the City's procurement documents are not guaranteed and are solely for the purpose of comparing Bids and determining an initial Contract Total Bid Price. Determination of the actual quantities and classifications of Unit Price Work will be made in accordance with Section 01 20 00 (Price and Payment Procedures), and the Contract Sum will be adjusted based on the actual quantities of units provided and Work performed.

1. Each unit price on a Schedule of Bid Prices shall include an amount considered by Contractor to cover Contractor's markup for overhead and profit as defined in Paragraph 6.06.

B. Quantity Increases: Should the total quantity of any Item of Unit Price Work performed exceed the estimated quantity indicated on the Schedule of Bid Prices by more than 25%, City will pay for the Work in excess of 125% of such estimated quantity by adjusting the unit price proposed therefor as follows:

1. City will adjust the unit price by the difference between the unit price proposed for the Item and the actual unit cost, determined as follows, of the total quantity of Work performed under said Item. City will determine the actual unit cost based on the direct costs per unit less fixed costs, which will be deemed to have been recovered by Contractor with the payments made for 125% of the quantity indicated on the Schedule of Bid Prices, and markup for overhead and profit as provided in Paragraph 6.06.

2. When the compensation payable for the number of units of an Item of Unit Price Work performed in excess of 125% of the quantity as indicated on the Schedule of Bid Prices is less than $5,000 at the unit price proposed therefor, the City reserves the right to make no adjustment in said unit price if the City so elects, except that City will consider an adjustment if Contractor submits a Change Order Request ("COR") in accordance with the requirements of Paragraph 6.03.

3. At the City's option, City will pay for Unit Price Work in excess of 125% of the estimated quantity indicated on the Schedule of Bid Prices on a Force Account basis as provided in Paragraph 6.07 in lieu of adjusting the unit price in accordance with subparagraphs 6.08B.1 or 6.08B.2 above.

C. Quantity Decreases: Should the total quantity of any Item of Unit Price Work performed be less than 75% of the estimated quantity indicated on the Schedule of Bid Prices, City will not consider an adjustment in compensation unless Contractor submits a COR in accordance with Paragraph 6.03. If Contractor so requests, the City will pay for the quantity of said Item performed by adjusting the unit price proposed therefor as follows:

1. City will adjust the unit price by the difference between the unit price proposed for the Item and the actual unit cost based on the direct costs per unit, including fixed costs described under subparagraph 6.08B.1, and markup for overhead and profit as provided in Paragraph 6.06, of the total quantity of Work performed under said Item, provided

however, that in no case shall the payment for such Work be less than that which would be made at the unit price proposed therefor.

2. The payment for the total pay quantity of such Item of Unit Price Work will in no case exceed the payment that City would make for the performance of 75% of the estimated quantity as indicated on the Schedule of Bid Prices at the unit price proposed therefor.

3. At the City's option, City will pay for Unit Price Work less than 75% of the estimated quantity indicated on the Schedule of Bid Prices on a Force Account basis as provided in Paragraph 6.07 in lieu of adjusting the unit price in accordance with subparagraphs 6.08C.1 and 6.08C.2 above.

ARTICLE 7 - TIME

7.01 PROGRESS AND COMPLETION

A. Contractor shall commence the Work of the Contract within five days from the start date established in the Notice to Proceed issued by the City and shall diligently and continuously prosecute the Work to its completion.

B. Contractor shall not perform demolition, removal, or reconstruction Work at the Site shown in the Construction Documents until Contractor has presented evidence satisfactory to the City Representative that it can, upon commencement, prosecute the Work continuously and expeditiously, and a Notice to Proceed for Work to start.

C. The continuous prosecution of the Work by Contractor shall be subject only to the delays defined in Paragraph 7.02. The start of Work shall include attendance at pre-construction conferences; joint survey and documentation of existing conditions, if required by the Contract Documents; preparation and submittal of shop drawings, equipment lists, schedule of values, progress schedule, submittal schedule, and requests for substitutions; and other similar activities.

D. Contractor shall bring the Work of this Contract to Substantial Completion and Final Completion, as determined by the City, in the manner provided for in the Contract Documents within the limits of Contract Time set forth in Section 00 73 02 (Contract Time and Liquidated Damages), from and after the official start date established in the written Notice to Proceed.

1. Issuance of a Notice of Substantial Completion may not precede the issuance of a Temporary Certificate of Occupancy, if such Temporary Certificate of Occupancy is required by the authority having jurisdiction over the Work.

2. During the time between Substantial Completion and Final Completion, Contractor shall complete the punch list work, but Contractor shall not disrupt the City's beneficial occupancy of the Project or any public use of the Work.

3. Final Completion is a condition precedent to final payment. When Contractor achieves Final Completion, the City will issue final payment to Contractor acknowledging that the Project is complete and the Work is acceptable to the City.

4. The limits of Contract Time as specified in Section 00 73 02 (Contract Time and Liquidated Damages) shall not be affected by the acceptance of any of the Alternate

Bid Items (if any) included in the Contract Documents provided that said Alternate Bid Items were incorporated into the Contract within the number of months after the date of award of the Contract as specified on Section 00 41 10 (Schedule of Bid Prices).

5. The specified limits of Contract Time may be changed only by a Change Order or Modification. Claims for compensation because of adjustment of the limits of Contract Time shall be made in accordance with the requirements of Paragraph 13.03.

E. Contractor shall at all times keep on the premises sufficient material and employ sufficient supervision and workers to prosecute the Work at the rate necessary to reach completion of the Project within the specified limits of Contract Time required by the Contract Documents. Contractor shall not start the Work unless it has sufficient equipment and materials available for the Project to allow diligent and continuous prosecution of the Work.

F. Contractor shall be responsible to maintain its schedule so as not to delay the progress of the Project or the schedules of other contractors. Contractor is required by virtue of this Contract to cooperate in every way possible with other contractors in order to maintain its schedule and complete the Work within the specified limits of Contract Time. The City shall not be obligated to compensate Contractor for such cooperation. Notwithstanding, Contractor may file a COR for undertaking additional work at the Direction of the City or allegedly incurred due to any other contractors' refusal or failure to cooperate with Contractor's Work.

G. If, in the opinion of the City, Contractor has fallen behind schedule according to Contractor's most current and City-approved update of the progress schedule submitted as set forth in Paragraph 3.10, or if Contractor delays the progress of other contractors, and is not entitled to an extension of time as provided in these Contract Documents, Contractor shall take some or all of the following steps to improve its progress at no additional cost to the City and shall submit operational plans to the City to demonstrate the manner in which Contractor will regain the desired rate of progress:

1. Increase construction manpower in such quantities and crafts as will substantially eliminate the backlog of Work;
2. Increase, when permitted in writing by the City, the number of working hours per shift, shifts per working day, working days per week, or the amount of construction equipment or any combination of the foregoing, sufficiently to substantially eliminate the backlog of Work;
3. Reschedule activities to achieve maximum practical concurrence of accomplishment of activities;
4. Expedite delivery of materials and equipment such as by airfreight;
5. Accelerate the priority of manufacture, fabrication, and shipment preparation of Work on order with the Supplier should such priority lists exist as a normal course of its business; and
6. Any other means deemed appropriate by the City.

H. The City may direct Contractor to take any of the steps enumerated in subparagraph 7.01G for the convenience of the City and if Contractor is not at fault. Should the City Representative direct Contractor to take measures previously described, the City will reimburse Contractor for reasonable costs of complying.

I. Should Contractor at any time during the progress of Work, refuse, neglect, or be unable for avoidable reasons to supply sufficient resources to prosecute the Work continuously and at the rate necessary to complete the Work within the specified limits of Contract Time, in accordance with the currently accepted progress schedule update, the City shall have the right to enter Default, following written notice and a three-day opportunity to cure, and terminate the Contract for cause as set forth in Paragraph 14.01.

7.02 DELAYS AND EXTENSIONS OF TIME

A. Unavoidable Delays: Pursuant to section 6.22(h)2(C) of the Administrative Code and for the purposes of the Contract Documents the term Unavoidable Delay shall mean an interruption of the Work beyond the control of Contractor that Contractor could not have avoided by Contractor's exercising care, prudence, foresight, and diligence. Moreover, in accordance with the progress schedule requirements of Paragraph 3.10, Contractor shall demonstrate that the Unavoidable Delay actually extends the most current Contract Substantial Completion date for the Project. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor (i.e., Avoidable Delays).

1. Non-compensable Delay/Time Extension. Contractor will be entitled to only a non-compensable time extension for the following types of Unavoidable Delay: Acts of God (as used herein, includes only earthquakes in excess of a magnitude 3.5 on the Richter Scale and tidal waves); acts of the public enemy; adverse weather conditions (in excess of the number of days specified in subparagraph 7.02C or the Supplementary Conditions); fires; floods; windstorms; tornadoes; wars; riots; insurrections; epidemics; quarantine restrictions; strikes; lockouts; sit-downs; slowdowns; other labor trouble; labor shortages; inability of Contractor to procure labor; material shortages; inability of Contractor to procure material; fuel shortages; freight embargoes; acts of a government agency; priorities or privileges established for the manufacture, assembly, or allotment of materials by order, decree, or otherwise of the United States or by any department, bureau, commission, committee, agent, or administrator of any legally constituted public authority; changes in the Work when the City has issued a bilateral change order for an agreed upon sum, as such change orders include an overhead mark-up for the additional time required by the changes as provided in subparagraph 6.06B; the prevention of Contractor from commencing or prosecuting the Work because of the acts of others for which the City is not responsible, excepting Contractor's Subcontractors and Suppliers of all tiers; and inability to procure or failure of public utility service.

   a. Whenever Contractor has knowledge that any actual or potential labor dispute is delaying or is threatening to delay the timely performance of its Contract, Contractor shall immediately give written notice thereof, including all relevant information with respect thereto, to the City.

b. In addition, Contractor shall take all appropriate measures to eliminate or minimize the effect of such labor dispute on the current, City-approved progress schedule, including but not limited to such measures as: promptly seeking appropriate injunctive relief; filing appropriate charges with the National Labor Relations Board under the applicable provisions of the Labor Management Relations Act of 1947, as amended; filing appropriate damage actions; taking such measures as establishing a reserved gate, as appropriate; if reasonably feasible, seeking other sources of supply or service; or any other measures that Contractor may appropriately utilize as deemed by the City to limit or eliminate the effect of the labor dispute on the Work. To the extent Contractor fails to initiate appropriate measures, it is not entitled to an extension of Contract Time. In addition, City will consider any delay impact caused by said failure on the progress schedule a Contractor-caused delay under any and all applicable provisions of the Contract Documents.

2. Compensable Delay/Time Extension. Contractor shall be entitled to a compensable time extension for an Unavoidable Delay caused solely by (i) the failure of the City to furnish necessary rights-of-way in accordance with the schedule set forth in the Contract Documents; (ii) failure by the City to deliver materials or equipment shown in the Contract Documents to be furnished by the City in accordance with the schedule specified in the Contract Documents where such failure is not the result of any default or misconduct of Contractor; (iii) the failure of the City to perform some other contract obligation where such failure is not the result of any default or misconduct of Contractor; (iv) the suspension of the Work by the City for its own convenience or benefit where such decision is not the result of any default or misconduct of Contractor; or (v) a materially Differing Site Condition under Paragraph 3.04, provided such City-caused Unavoidable Delay is critical, extends the most current Contract Substantial Completion Date, and is not concurrent with a Contractor-caused delay (Avoidable Delay) or other type of Unavoidable Delay as previously defined (not caused by the City), and if City has not issued a Change Order to compensate Contractor for direct costs plus mark-up for overhead and profit arising from the materially Differing Site Condition. If for any reason a court or other authority with jurisdiction holds that one or more of the conditions described above is legally unenforceable, the remaining conditions must be met as a condition to obtaining a compensable time extension. All other types of Unavoidable Delay shall not entitle Contractor to a compensable time extension. Refer to Paragraph 7.03 for more information regarding compensable delay.

   a. Float or slack time within the baseline schedule belongs to the Project and is an expiring resource available to City or Contractor as needed to meet Milestones or complete the Work within the Contract Time. Accordingly, Contractor acknowledges and agrees that any City-caused delays on the project may be offset by City-caused time savings (including, but not limited to, the return of critical path submittals in less time than allowed under the Contract Documents, approval of substitution or value engineering requests that result in savings of time along the Critical Path). In such event Contractor shall not be entitled to receive a compensable time extension until all City-caused time savings are exceeded and the Contract Time is also exceeded.

b. Early Completion Schedule: If Contractor submits a baseline schedule that shows a completion time that is earlier than the Contract Time, the float shall belong to the Project. Contractor shall not be entitled to a compensable time extension for any Change Order, Unilateral Change Order, or City-caused delay that causes the early completion date to be extended within the float.

3. Concurrent Delay. Contractor shall be entitled to only a non-compensable time extension in the event that a City-caused (otherwise compensable) delay is concurrent with either a Contractor-caused delay or a non-compensable Unavoidable Delay.

B. Avoidable Delays: The term Avoidable Delay shall include, but is not limited to, the following:

1. Any delay that could have been avoided by the exercise of care, prudence, foresight, and diligence on the part of Contractor or its Subcontractors or Suppliers of any tier; or
2. Any delay in the prosecution of parts of the Work that may in itself be Unavoidable, but which does not necessarily prevent or delay the prosecution of other parts of the Work, nor delay the date of Substantial Completion based on the specified limits of Contract Time; or
3. Any delay caused by the untimely review by Contractor of the Contract Drawings and Specifications pursuant to subparagraph 3.02C; or
4. Any delay resulting from the City responding to Contractor-generated RFIs as long as the response is in accordance with subparagraph 6.02B; or
5. Any delay arising from an interruption in the prosecution of the Work resulting from a reasonable interference from other contractors employed by the City but does not delay the date of Substantial Completion based on the specified limit of Contract Time.
6. Contractor shall not be entitled to, and hereby conclusively waives, any right to recovery of compensation, costs, or damages for delay, disruptions, hindrances, or interferences (including without limitation interruption of schedules, extended, excess of extraordinary field and indirect overhead costs, loss of productivity, and the impact, ripple, or cumulative effect on other Work) that are the result of Avoidable Delay.

C. Adverse Weather Delays:

1. Adverse weather shall not be a prima facie reason for the granting of a non-compensable time extension, and Contractor shall make every effort to continue work under prevailing conditions. Such efforts by Contractor shall include, but are not limited to, providing temporary gravel roads; installing a rain dewatering system; protecting interior and exterior areas exposed to rain, wind, and extreme temperatures; and providing temporary heat where required for Work to proceed without delay.
2. The City may classify an adverse weather day as a non-compensable Unavoidable Delay, provided Contractor made efforts to work during adverse weather and to avoid the impacts of adverse weather to its schedule. If such an event occurs, and Contractor is prevented by adverse weather or conditions from proceeding with at least 75% of the scheduled labor, material and equipment resources for at least five hours per work day on activities shown as critical on the most current and City-approved progress schedule

update, City will classify the delay as an Unavoidable Delay, and City will grant Contractor a non-compensable time extension.

3. Regardless of the type and severity of the adverse weather, Contractor shall be responsible for all costs of its efforts to mitigate the impacts of adverse weather to its schedule during the Contract Time.

4. Adverse weather shall mean rain, windstorm, flood, air pollution episode, or other natural phenomenon occurring at the Site which exceed the anticipated number of days of inclement weather and poor air quality as provided herein and which are proven by Contractor to be detrimental to the progress of the Work. Contractor shall plan the Work to allow for the following number of days of inclement weather and poor air quality during normal working hours:

Month	Weather and Air Quality Days	Month	Weather and Air Quality Days
January	3	July	0
February	3	August	0
March	3	September	1
April	1	October	2
May	0	November	2
June	0	December	2

a. Contractor's progress schedule shall incorporate a prudent allowance for the anticipated number of days of inclement weather specified herein.

b. The Contract Time allowed for completion of Work specified in Contract Time and Liquidated Damages (Section 00 73 02) is predicated on the anticipated number of days of inclement weather specified herein.

c. Contractor shall not be entitled to receive a time extension related to weather until the anticipated number of days specified herein for the month of occurrence of the inclement weather event has been exceeded.

d. In the event that there are months with less than the anticipated number of inclement weather days specified herein, the City reserves the right to transfer the unused inclement weather days to other months of the Contract Time for which Contractor has requested a time extension because of adverse weather.

e. In the event that there is a month with more than the anticipated number of inclement weather days specified herein, and Contractor has requested a time extension because of adverse weather, the City reserves the right to transfer unused inclement weather days from other months of the Contract Time to the month in question. Contractor shall not be entitled to receive a time extension related to weather until the anticipated number of days specified herein for the month of occurrence of the inclement weather event, plus any inclement weather days transferred by the City from other months of the Contract Time, has been exceeded.

D. Notice of Delay:

1. Pursuant to section 6.22(h)(2)(D) of the Administrative Code, Contractor shall notify the City in writing promptly of all anticipated delays in the prosecution of the Work and, in any event, promptly upon the occurrence of a delay. Such notice may permit the City to take steps to prevent the occurrence or continuance of the delay, and/or determine to what extent Substantial Completion is delayed thereby.
2. Said notice shall constitute an application for an extension of time and payment for a compensable time extension, if applicable, only if the notice requests such time extension, specifies whether Contractor believes the time extension is compensable or non-compensable, sets forth Contractor's estimate of the additional time required together with a full recital of the causes of Unavoidable Delays relied upon, and meets all requirements for a Notice of Potential Claim as set forth in Article 13, including the requirement that such Notice be submitted to the City within 10 days of the event which the Contractor contends affected the performance of the Work.
3. The City's determination of whether to grant an extension of time and whether the extension is compensable or non-compensable will be based on Contractor's demonstration to the City's satisfaction that such Unavoidable Delays will extend Contractor's current critical path on the current, City-approved updated progress schedule or require the formulation of a new extended critical path schedule.
4. If Contractor does not submit a notice as set forth in subparagraph 7.02D.2, above, Contractor thereby admits the occurrence had no effect on the length of its duration of Work and no extension of time is necessary, and Contractor understands and agrees that City will not grant an extension of time or adjust the Contract Sum.

E. Extensions of Time:

1. In the event City determines that it is necessary to extend the time for completion of the Work to be performed under these Contract Documents beyond the specified limits of Contract Time, such extension(s) shall in no way release Contractor's contractual obligation to provide guarantees or warranties pursuant to the provisions of the Contract Documents, nor shall such extension of time relieve or release Contractor's surety or the sureties from payment and performance bond obligations.
2. The sureties in executing such bonds shall be deemed to have expressly agreed to any such extension of time.
3. The length of any extension of time shall be limited to the extent that the commencement, prosecution, and completion of the Work are delayed by the event as determined by the City in accordance with section 6.22(h)(2)(D) of the Administrative Code.
4. Adjustments to the Contract Sum for compensable time extensions shall be calculated in accordance with the provisions specified in Paragraph 7.03.
5. Extensions of time that cumulatively extend the Contract Time in excess of 10% of the original contract duration as specified in Section 00 73 02 (Contract Time and Liquidated Damages) shall be subject to the approval of the Commission (or the Commission's designee), as appropriate.
6. In no event will City grant extensions of time after the date of Final Completion.

7. Granting of an extension of time because of Unavoidable Delays shall in no way operate as a waiver on the part of the City of the right to collect liquidated damages for other delays or to collect other damages or to pursue other rights and interests.

8. Should Contractor or any Subcontractor of any tier or any Supplier of any tier seek an extension of time for the completion of the Work under the provisions of this Paragraph 7.02, Contractor and its Subcontractor or Supplier shall submit justification for the extension of the time requested and otherwise comply with all provisions of these Contract Documents with respect to requests for extensions of time.

9. Neither this provision, nor any other provision of the Contract Documents, are intended by the parties to be contrary to any express provision of law. The parties specifically agree, acknowledge, and warrant that neither this provision nor any other provision of the Contract Documents has for its object, directly or indirectly, the exemption of the City, the City Representative, the City's consultants, and their respective Commissioners, directors, officers, members, employees, and authorized representatives from responsibility for their own sole negligence, violation of law, or other willful injury to the person or property of another.

7.03 ADJUSTMENTS TO THE CONTRACT SUM FOR COMPENSABLE DELAY/COMPENSABLE TIME EXTENSION

A. The City will adjust the Contract Sum for a compensable delay as specified in subparagraph 7.03C, below, if, and only if, Contractor demonstrates that it is entitled to a compensable time extension in accordance with subparagraph 7.02A.2 and timely complies with the Notice of Delay requirements of these General Conditions.

B. Change Order, Unit Price and Force Account Work Excluded. The provisions of this Paragraph 7.03 and subparagraph 7.02A.2 do not apply to Change Order Work paid under Paragraphs 6.06 (Cost of Change Order Work) or 6.08 (Unit Price Work), or to Force Account Work performed under Paragraph 6.07. Contractor's right to recovery of compensation, costs, expenses, and damages for delay, disruption, hindrance, and interference (including without limitation interruption of schedules, extended, excess or extraordinary field and home office overhead costs, loss of productivity, and the impact, ripple, or cumulative effect on other Work) that are the result of extras, changes, additions, or deletions in the Work shall be limited to the adjustment of the Contract Sum (including without limitation the mark-ups specified) as set forth in Paragraphs 6.06 or 6.08 of these General Conditions. Those Paragraphs include markups to cover field and home office overhead costs. Overhead claims in excess of the markups specified are not allowed for Change Order Work, Force Account Work, or Unit Price Work. The Contract Sum adjustment provisions set forth in Paragraphs 6.06 and 6.08 constitute the sole, exclusive, and complete compensation that the City is obligated to pay Contractor for all costs, expenses, and damages incurred by Contractor and its Subcontractors and Suppliers of all tiers associated with Change Order Work, Force Account Work, or Unit Price Work.

C. Field Office Overhead – Daily Rate. If Contractor meets the conditions for a compensable time extension specified in subparagraph 7.03A, above, then the City will pay Contractor such amount as the City may find to be fair and reasonable compensation for such part of Contractor's actual loss that was unavoidable. The City will calculate fair and reasonable compensation as follows:

1. Within the time and in the format specified by the City, Contractor must submit a detailed listing of daily field office overhead cost components that are time related. The individual cost components shall represent costs that have been or will be incurred or increased as a sole or direct result of the compensable time extension. This listing may include without limitation onsite project management, supervision, engineering, and clerical salaries; onsite office utilities and rent; onsite company vehicles and their operating expenses; and site maintenance, safety and security expenses.
2. The listing of the daily field office overhead cost components described above must be based on the Contractor's actual field office overhead costs. This listing must be submitted with the first Notice of Delay that includes a request for a compensable time extension. If Contractor's time-related daily field office overhead cost changes for subsequent compensable delays, then the Contractor shall submit a new overhead rate based on the Contractor's overhead costs at the time of the subsequent delay.
3. The daily field office overhead rate shall be multiplied by the number of days of City-approved Contract extension. Contractor shall not be entitled to any markup for overhead and profit on the extended daily field office overhead cost.
4. Contractor shall submit the information specified above in sufficient detail to allow review and shall prepare the information in accordance with generally accepted accounting principles. The City shall have the right to audit Contractor's costs under Paragraph 2.05 of these General Conditions.

D. Extended Home Office Overhead. Absent extraordinary circumstances, City will not pay Contractor for extended home office overhead for compensable delays. City will not allow extended home office overhead and its application to a compensable time extension unless Contractor demonstrates to the satisfaction of the City that each and every of the following conditions apply to the delay period: (i) the delay was caused by the City and meets the conditions of Paragraph 7.02A.2; (ii) such City-caused delay was of an indefinite (unknown) duration; (iii) the City-caused delay suspended most, if not all, project Work; (iv) the City-caused delay resulted in a substantial disruption or decrease in the income stream from the project; (v) during the City-caused delay, Contractor was required to remain ready to resume Contract Work immediately; and (vi) Contractor was unable to secure comparable replacement work due solely to the said delay from this project during the impacted period to replace the reduced cash flow from this project. If Contractor believes that it may be entitled to extended home office overhead, it must notify the City through the Notice of Delay process specified in subparagraph 7.02D, above. Within the time and in the format specified by the City, Contractor must submit detailed evidence of entitlement and the requested rate, including all supporting evidence from which the City may make a determination (including an audit by a California-licensed Certified Public Accountant if the City so requests). Contractor must supply supporting evidence prepared in accordance with generally accepted accounting principles, and the City shall have the right to audit Contractor's submittal under Paragraph 2.05 of these General Conditions. If the City determines that extended home office overhead is available, then the City shall have the discretion to determine the methodology for calculation of the rate.

E. Credit for Change Order and Force Account Markups. If Contractor timely requests additional compensation for a compensable delay in accordance with the Contract, and the City determines Contractor entitlement to additional compensation for such delay, then the

City will adjust the amount payable to Contractor for the compensable delay by deducting a fair and reasonable credit to account for additional overhead paid to Contractor under the markups specified in Paragraph 6.06 for Change Order Work and Force Account Work, including markups from changes performed and paid under bids items (e.g., unit priced and contingency allowance bid items). The baseline credit amount will be 5% of the value of all Change Order Work and Force Account Work performed by Contractor under the Contract prior to and during the compensable delay period (but excluding any future Change Order Work and Force Account Work). If the City seeks a credit in excess of 5%, then the City will provide Contractor with supporting documentation. Such supporting documentation may include, at the City's discretion, the results of an audit or examination of documents performed under Paragraph 2.05. If Contractor seeks either a credit of less than 5% or objects to the credit amount proposed by the City, then Contractor shall timely provide the City with supporting documentation. Such supporting documentation shall include the results of an audit performed by a CPA at Contractor's cost if so requested by the City.

7.04 LIQUIDATED DAMAGES

A. Determination of Damages:

1. The actual fact of the occurrence of damages and the actual amount of the damages that the City would suffer if the Work were not completed within the specified limits of Contract Time are dependent upon many circumstances and conditions that could prevail in various combinations and, from the nature of the case, it is impracticable and extremely difficult to fix the actual damages.

2. Damages the City would suffer in the event of delay include, but are not limited to, costs of renting equivalent space, expenses of prolonged employment of an architectural, engineering, and construction management staff comprised of both City Representatives and consultants; costs of administration, inspection, and supervision; and the loss suffered by the public within the City and County of San Francisco by reasons of the delay in the construction of the Project to serve the public at the earliest possible time.

B. Agreed Amount of Damages: It is understood and agreed by Contractor and City that if Contractor does not complete all the Work specified or indicated in the Contract Documents within the specified limits of Contract Time, or within such time limits as extended in accordance with Paragraph 7.02, the City will sustain actual damages in the event of and by reason of such delay.

1. Contractor and City agree that the amount of liquidated damages set forth in Section 00 73 02 (Contract Time and Liquidated Damages) represents the Parties' reasonable estimate of the approximate damages that the City will sustain for each and every day of delay beyond the number of days specified in Section 00 73 02 for Substantial Completion, as such date may be modified in accordance with the Contract Documents.

2. Contractor and City agree that the amount of liquidated damages set forth in Section 00 73 02 represents the Parties' reasonable estimate of the approximate damages which the City will sustain for each and every day of delay beyond the number of days specified in Section 00 73 02 for completing the punch list of remedial Work and

achieving Final Completion, as such date may be modified in accordance with the Contract Documents.

3. Contractor and City agree that the amount of liquidated damages set forth in Section 00 73 02 represents the Parties' reasonable estimate of the approximate damages that the City will sustain for each and every day (or other measure) of delay beyond the number of days (or other measure) specified in Section 00 73 02 for completing the specified critical, independent milestone Work (e.g., shutdown Work), if any, as such date may be modified in accordance with the Contract Documents.
4. The parties therefore agree that Contractor shall pay such amount of liquidated damages as specified in Section 00 73 02, and in case such amount is not paid, Contractor agrees that the City may deduct the amount therefor from any money due or that may become due to Contractor under the Contract.

C. Payment of Damages:

1. Should Contractor become liable for liquidated damages, the City, in addition to all other remedies provided by law, shall have the right to withhold any and all retained payments as provided in Paragraph 9.06 that would otherwise be due or become due to Contractor until the liability of Contractor has finally been determined.
2. The City shall have the right to use and apply such retained funds, in whole or in part, to reimburse the City for all liquidated damages due or to become due to the City. City will pay any remaining balance of such retained funds to Contractor only after discharge in full of all liability incurred by Contractor.
3. If the retained funds are not sufficient to discharge all such liabilities of Contractor, Contractor and its sureties shall continue to remain liable to the City until all such liabilities are satisfied in full.
4. Should the retention of moneys due or to become due to Contractor be insufficient to cover such damages, Contractor shall pay forthwith the remainder to the City.

ARTICLE 8 - INSPECTION AND CORRECTION OF WORK

8.01 UNCOVERING OF WORK

A. Contractor shall not cover any Work or portion of Work until inspected by the City or other public authorities having jurisdiction as required by the Contract Documents.

B. If Contractor covers any part of the Work contrary to the request or direction of the City Representative or other public authority having jurisdiction, or contrary to the requirements of the Contract Documents, Contractor must, upon written request, uncover it for inspection by the City or other public authorities having jurisdiction and subsequently cover the Work in accordance with the requirements of the Contract Documents without adjustment to the Contract Time or Contract Sum. The provisions and obligations set forth in this subparagraph shall apply even if the City or other public authorities having jurisdiction ultimately determine (after uncovering and inspection) that the underlying Work in question conforms to the requirements of the Contract Documents.

C. Should the City or other public authorities having jurisdiction wish to either (i) re-inspect a portion of the Work that has been covered by Contractor in compliance with subparagraph 8.01A, above, or (ii) inspect a portion of the Work that has been covered by Contractor which is not required by the Contract Documents to be observed or inspected prior to its being covered and which the City or other public authorities having jurisdiction did not specifically request to observe prior to its being covered, Contractor shall uncover the applicable portion of the Work upon written request. If the City or other public authorities having jurisdiction determine that the Work uncovered conforms to the requirements of the Contract Documents, then the City will pay the costs of uncovering and replacement of the cover through a Change Order and will adjust the Contract Time by Change Order if the uncovering and replacement Work extends the most current Substantial Completion or Final Completion date, as applicable. If, however, the City or other public authority having jurisdiction determine that the Work uncovered does not conform to the requirements of the Contract Documents, then Contractor shall pay the costs of uncovering and replacement and shall not be entitled to an adjustment of the Contract Time or the Contract Sum.

8.02 TESTS AND INSPECTIONS

A. Contractor shall arrange and pay for all testing and inspection of the Work required by the Contract Documents (other than special inspections as set forth in subparagraph 8.02B below) through an independent testing laboratory, unless specifically indicated in the Contract Documents to be the responsibility of the City or other authority having jurisdiction.

B. City will pay for special inspections to be performed by the City as specified in the Contract Documents or as required to comply with the Code or by another agency having jurisdiction. Contractor shall give the City Representative, the City's independent testing laboratory, special inspectors, and representatives from other authorities having jurisdiction a minimum of 10 working days' notice, excluding weekends and City holidays, of when and where such special inspections are required so the City may arrange for the appropriate City Representatives and inspectors, and representatives from other public authorities having jurisdiction if any, to be present to perform the necessary inspections or tests.

1. The City reserves the right to modify the scope of, or to reassign, any of the testing and inspection services specified in the various sections of the Contract Documents to be performed by a testing agency or consultant retained by the City in connection with the Work.

C. If the City or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection, or approval not included in subparagraph 8.02A, the City will order the performance of such services by qualified independent testing agencies or consultants as may reasonably be required. The City shall bear such costs except as otherwise provided in subparagraph 8.02D.

D. If such testing, inspection, or approval reveal failure of the portion of the Work to comply with requirements of the Contract Documents, Contractor shall bear all costs made necessary by such failure including costs of repeated procedures and compensation for the City's additional testing and inspection services and expenses.

1. If the City's observation of any inspection or testing undertaken pursuant to this Paragraph 8.02 reveals a failure in any one of a number of identical or similar items or elements incorporated in the Work to comply: (i) with the requirements of the Contract Documents or (ii) with laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction with respect to the performance of the Work, then the City will have the authority to order inspection and testing of all such items or elements of the Work, or of a representative number of such items or elements of the Work, as it may consider necessary or advisable.
2. Contractor shall bear all costs thereof, including reimbursement to the City for the City's additional testing and inspection services if any are required, made necessary thereby. However, neither the City's authority to act under Paragraph 8.02 nor any decision made by the City Representative in good faith either to exercise or not to exercise such authority, shall give rise to any duty or responsibility of the City to Contractor, any Subcontractor, or any of their agents or employees, or any other person performing any of the Work.

E. Neither observation by the City nor inspections, tests, or approvals by the City's inspectors or testing agencies and consultants, or by other public authorities having jurisdiction, shall relieve Contractor from Contractor's obligation to perform and provide quality control services to assure that the Work conforms to the requirements of the Contract Documents.

F. Failure or neglect on the part of the City or any of its authorized agents or representatives to condemn or reject Non-conforming Work or defective materials shall not be construed:

1. To imply acceptance of such Non-conforming Work or materials; or
2. As barring the City at any subsequent time from the recovery of money needed to build anew all portions of such Non-conforming Work; or
3. To relieve Contractor from the responsibility of correcting Non-conforming Work or materials.

G. Unless otherwise required by the Contract Documents, Contractor shall secure and furnish to the City required certificates of testing, inspection, or approval in accordance with the Specifications.

H. Contractor shall provide promptly all facilities, labor, equipment, and material reasonably needed for performing such safe and convenient inspection and test as may be required by the City. City or its agents will perform tests or inspections conducted pursuant to the Contract Documents promptly to avoid unreasonable delay in the Work.

1. The City reserves the right to charge to Contractor any additional cost of inspection or test, including travel, transportation, lodging, etc., when the Work, material or workmanship is not ready for testing or inspection at the specified time.

8.03 CORRECTION OF NON-CONFORMING WORK AND GUARANTEE TO REPAIR PERIOD

A. Contractor shall (i) correct Non-conforming Work that becomes apparent during the progress of the Work or during the Guarantee to Repair Period and (ii) replace, repair, or restore to the City's satisfaction any other parts of the Work and any other real or personal

property that is damaged or destroyed as a result of Non-conforming Work or correction of Non-conforming Work. Contractor shall promptly commence such correction, replacement, repair, or restoration upon notice from the City Representative, but in no case later than 10 working days after receipt of such notice; and Contractor shall diligently and continuously prosecute such correction to completion. Contractor shall bear all costs of such correction, replacement, repair, or restoration, and all damages resulting from such Non-conforming Work, including without limitation additional testing, inspection, engineering, and compensation for City Representative's services and expenses (including the City's expenses at the labor rates included in the contracts between the City and the City's testing and inspection services). This subparagraph shall not be interpreted to provide for recovery of attorney's fees.

B. The term "Guarantee to Repair Period" means a period of two years, unless a longer period of time is specified in the General Requirements or other Contract Documents or prescribed by applicable laws and regulations, commencing as follows:

1. For any Work not described as incomplete in the Punch List / Final Completion, on the date of Substantial Completion.
2. For space beneficially occupied or for separate systems fully utilized prior to Substantial Completion per Paragraph 9.07 (Partial Utilization), as established in a Notice of Partial Utilization.
3. For all Work other than described in subparagraphs B.1 and B.2, above, from the date of Final Completion.

C. Contractor's obligation to correct Non-conforming Work shall continue until one year after the date of correction of repaired or replaced items, or such longer period as may be specified in the Contract Documents or mutually agreed to by Contractor and City.

D. If Contractor fails to commence correction of Non-conforming Work or fails to prosecute such correction diligently within 10 working days of the date of written notification from the City, the City may correct the Non-conforming Work or may remove it and store the salvageable materials or equipment at Contractor's expense. If Contractor does not pay the costs of such removal and storage within five working days after written notice, the City may sell, auction, or discard such materials and equipment. The City will credit Contractor's account for the excess proceeds of such sale, if any. The City will deduct from Contractor's account the costs of damages to the Work, rectifying the Non-conforming Work, removing and storing such salvageable materials and equipment, and discarding the materials and equipment, if any. If the proceeds fail to cover said costs and damages, the Contract Sum shall be reduced by the deficit. If the current Contract unpaid balance and retention is insufficient to cover such amount, Contractor shall reimburse the City.

E. If the City must take immediate action to correct Non-conforming Work for life safety or the protection of property, which work is performed by City or a separate contractor, Contractor shall pay to the City all reasonable costs of correcting such Non-conforming Work. Contractor shall replace, repair, or restore to City's satisfaction any other parts of the Work and any other real or personal property that is damaged or destroyed as a result of such Non-conforming Work or the correction of such Non-conforming Work.

F. This requirement to correct Non-conforming Work and all similar requirements applicable to equipment of Subcontractors of any tier or Suppliers used in or as a part of the Work (whether on equipment of the nature above specified or otherwise) shall inure to the benefit of the City without necessity of separate transfer or assignment thereof.

G. Contractor's obligations under this Paragraph 8.03 are in addition to and not in limitation of its warranty obligations under Paragraph 3.18 or any other obligation of Contractor under the Contract Documents. Enforcement of Contractor's express warranties and guarantees to repair contained in the Contract Documents shall be in addition to and not in limitation of any other rights or remedies City may have under the Contract Documents or at law or in equity for Non-conforming Work. Nothing contained in this Paragraph shall be construed to establish a period of limitation with respect to other obligations of Contractor under the Contract Documents. Establishment of correction periods for Non-conforming Work relate only to the specific obligations of Contractor to correct the Work and in no way limits either Contractor's liability for Non-conforming Work or the time within which City may commence proceedings to enforce Contractor's obligations under the Contract Documents.

8.04 ACCEPTANCE OF NON-CONFORMING WORK

If, in the sole and unfettered judgment of the City, it is undesirable or impractical to repair or replace any Non-conforming Work, the City may accept such Non-conforming Work in exchange for a reduction in the Contract Sum by such amount as the City or its authorized representatives deem equitable, or Contractor shall rebate moneys previously paid by the City.

ARTICLE 9 - PAYMENTS AND COMPLETION

9.01 CONTRACT SUM

A. City's payment to Contractor of the Contract Sum shall constitute full compensation for furnishing all labor, materials, equipment, and tools necessary to the Work; for performing and completing all Work in accordance with the requirements of the Contract Documents; and for all expenses incurred by Contractor for any purpose incidental to performing and completing the Work.

B. Whenever the Contract Documents specify that Contractor is to perform Work or furnish materials of any class for which no price is fixed in the Contract, it shall be understood that Contractor shall perform such Work or provide such materials furnished without extra charge, allowance, or direct payment of any sort, and that the cost of performing such Work or furnishing such materials is included in Contractor's Total Bid Price.

9.02 SCHEDULE OF VALUES FOR LUMP SUM WORK

A. Within 30 days after receipt of the Notice to Proceed, or as otherwise specified in Division 01, Contractor shall submit a detailed cost breakdown of each of the lump sum Items in the Schedule of Bid Prices, including Alternate Bid Items selected by the City (if any), coordinated with the progress schedule. This breakdown shall be referred to as the schedule of values and shall serve as the basis for progress payments for lump sum Items.

City will not issue any progress payments for lump sum Items until the City has reviewed and accepted Contractor's schedule of values.

1. The specific format, detail, and submittal requirements for the schedule of values shall be as specified in Section 01 29 73 (Schedule of Values) or as directed by the City to facilitate and clarify progress payments to Contractor for completed Work.
2. The sum of the individual costs listed in the schedule of values for each lump sum Item shall equal the lump sum price Bid therefor under the Bid Item named in the Schedule of Bid Prices.
3. Unless otherwise provided in the Contract Documents, Contractor's overhead, profit, insurance, bonds, and other similar costs, shall be prorated through all Items so that the sum of the cost for all Items shall equal Contractor's Total Bid Price.

B. The City will review and return Contractor's schedule of values with comments. Contractor shall make all corrections requested by the City and resubmit for approval.

1. The City shall be the sole judge of the sufficiency in detail and proper proportioning of Contractor's schedule of values.
2. Contractor's schedule of values will be acceptable to the City as to form and substance if it provides a reasonable allocation of Contractor's Bid amount to component parts of the Work.

C. Upon concurrence by the City, City will issue a written formal approval of Contractor's schedule of values.

9.03 PROGRESS PAYMENTS

A. Subject to the conditions set forth in these General Conditions, and to the authorization of the City or the authorized representatives of the City, the City shall issue payments to Contractor upon demand of Contractor and pursuant to the Contract Documents as follows.

B. On the 25th day of each month, Contractor shall submit to the City for review an Application for Payment, on a form approved by the City and signed by Contractor, covering the Work completed by Contractor as of the date of the Application and accompanied by such supporting documentation as specified in Section 01 20 00 (Price and Payment Procedures).

1. Contractor shall estimate the monthly value of lump sum Work pursuant to the schedule of values prepared in accordance with Paragraph 9.02. Contractor's estimates need not be based on strict measurements but shall consist of good-faith approximations and shall be proportional to the total amount, considering payments previously made, that becomes due for such Work satisfactorily completed in accordance with the requirements of the Contract Documents.
2. Progress payments on account of Unit Price Work shall be based on the number of units of Work satisfactorily completed as determined by the City and the unit prices proposed by Contractor, adjusted as specified in Paragraph 6.08 for the actual quantities of Work performed.

3. City will make progress payments on account of allowances named in Schedule of Bid Prices for such sums as may be acceptable to the City. Prior to final payment, the City will issue an appropriate Change Order in an amount determined by the City Representative to reflect actual amounts due to Contractor on account of Work covered by allowances, and the City will adjust the Contract Sum accordingly.

C. Contractor's Application for Payment shall identify the amount of Contractor's total charges to date.

D. City will base monthly progress payment amounts to Contractor on completed Work or percentages of Work completed prior to the end of the payment period. Except as provided in Paragraph 9.10, the City will not approve payments for materials or equipment not incorporated into the Work.

E. Contractor shall base its monthly Applications for Payment on information developed at monthly progress meetings and prepared by Contractor as specified in Division 01. Submission of approved monthly progress schedule updates for the same period as the Application for Payment shall be a condition precedent to making progress payment applications. City will not make any partial progress payments to Contractor until Contractor has submitted and City has reviewed all cost information requested by the City.

F. In addition to other requirements specified in Division 01, consistent with San Francisco Mayor's Executive Directive 12-01, Contractor shall include its Subcontractors' and Suppliers' acceptable invoices with the Monthly Application for Payment that it submits no later than 30 days after receipt of such invoices from its Subcontractors and Suppliers.

G. As soon as practical after estimating the progress of the Work, the City will pay to Contractor in a manner provided by law an amount based upon Contract prices, of labor and materials incorporated in the Work at the Site prior to midnight of the 25th day of the current month, less the aggregate of the amount of previous payments. The City may, however, withhold payments at any time that Contractor is failing to progress the Work, in the City's estimation in accordance with Contract requirements, or as otherwise provided in Paragraph 9.06.

1. The City shall endeavor to make progress payments for undisputed amounts within 15 business days, but no later than 45 business days, after receipt of a payment request and the required documentation including, without limitation, certified payrolls, and Contract Monitoring Division program participation forms. In no event shall the City become liable for interest or other charges for late payment except as set forth in Administrative Code section 6.22(j)(7).

H. No inaccuracy or error in said monthly estimates shall operate to release Contractor or its sureties from damages arising from such Work or from the enforcement of each and every provision of the Contract Documents, and the City shall have the right to correct any error made in any estimate for payment.

I. In accordance with the provisions of section 22300 of the California Public Contract Code, Contractor may substitute securities for any moneys retained by the City to ensure performance under the Contract under the following conditions:

1. At the request and expense of Contractor, securities listed in section 16430 of the California Government Code, bank or savings and loan certificate of deposits, interest bearing demand deposit accounts, standby letters of credit, or any other security mutually agreed to by the City and Contractor which are equivalent to the amount retained under the retention provisions of the Contract Documents shall be deposited with the City Controller who shall then pay such moneys to Contractor. Upon satisfactory completion of the Project and all Work under the Contract, City will return the securities to Contractor.
2. Contractor shall be the beneficial owner of the securities substituted for moneys withheld and shall receive any interest thereon.
3. Contractor shall enter into an escrow agreement with the City Controller according to Section 00 63 30 (Escrow Agreement for Security Deposits in Lieu of Retention), specifying the amount of securities to be deposited, terms and conditions of conversion to cash in case of default of Contractor, and termination of escrow upon completion of the Contract.

J. City's issuance of any progress payment, or the receipt thereof by Contractor, shall not constitute acceptance of the Work or any portion thereof and shall in no way lessen Contractor's obligation to replace unsatisfactory Work or material, though the unsatisfactory character of such Work or material may not have been apparent or detected at the time City made such payment.

K. It is mutually understood and agreed that the City may withhold from any payment otherwise due to Contractor such amounts as may be necessary to protect the City to ensure completion of the Project pursuant to the requirements of this Contract. The failure or refusal of the City to withhold any moneys from Contractor shall in no way impair the obligations of any surety or sureties under any bonds furnished under this Contract.

1. If City withholds any payment or portion of payment, City will notify Contractor in writing of the cause(s) of such action.

L. Contractor shall include only amounts for Change Orders and undisputed portions of Unilateral Change Orders completely approved and executed by the City on its payment applications, and only that portion of the Change Order Work actually performed. Contractor shall submit a breakdown for each Change Order by Change Order number on its Application for Payment.

M. Submission of Electronic Certified Payrolls. City will not process any monthly progress payment applications until Contractor has submitted weekly certified payrolls to the City for the applicable time period. Contractor shall prepare certified payrolls in accordance with the requirements of section 1770 et seq. of the California Labor Code for the period involved for all employees and owner-operators, including those of Subcontractors and Suppliers of all tiers, for all labor and materials incorporated into the Work.

1. Contractor shall submit certified payrolls to the City electronically via the Project Reporting System ("PRS") selected by the City, an Internet-based system accessible on the internet. The City will assign the Contractor and each Subcontractor and Supplier a log-on identification and password to access the PRS.

2. Use of the PRS may require Contractor, Subcontractors, and Suppliers to enter additional data relating to weekly payroll information including, but not limited to, employee identification, labor classification, total hours worked and hours worked on this project, and wage and benefit rates paid. Contractor's payroll and accounting software may be capable of generating a "comma delimited file" that will interface with the PRS software.

3. The City will provide basic training in the use of the PRS at a scheduled training session. Contractor and all Subcontractors and Suppliers and/or their designated representatives must attend the PRS training session.

4. Contractor shall comply with the requirements of this subparagraph 9.03M at no additional cost to the City.

5. The City will not be liable for interest, charges, or costs arising out of or relating to any delay in making progress payments due to Contractor's failure to make a timely and accurate submittal of certified payrolls.

N. The City will not process monthly progress payment applications until Contractor has submitted weekly certified payrolls to the California Department of Industrial Relations (in addition to the City) for the applicable time period.

1. Contractor shall submit certified payrolls to the California Department of Industrial Relations in the manner specified by the DIR.

O. Contractor Prompt Payment. Except as otherwise required by Chapter 14B of the Administrative Code, and consistent with the provisions of section 6.22(q) of the Administrative Code, Contractor shall pay its Subcontractors within seven calendar days after receipt of each progress payment from the City, unless otherwise agreed to in writing by both Contractor and the Subcontractor. In the event that there is a good faith dispute over all or any portion of the amount due on a progress payment from Contractor to a Subcontractor, the Contractor may withhold the disputed amount but shall pay the undisputed amount. If Contractor violates the provisions of section 6.22(q), then Contractor shall pay to the Subcontractor directly the penalty specified in section 6.22(q).

9.04 RETENTION

A. As required by and in conformance with the procedures set forth in section 6.22(j) of the Administrative Code, the City shall hold 5% in retention from each progress payment.

B. When the City determines that the Work is 98% or more complete, the City may reduce retention funds to an amount equal to 200% of the estimated value of work yet to be completed, plus any amounts necessary to cover offsets by the City for liquidated damages, defective Work, stop notices, forfeitures, and other charges.

C. The City shall release the balance of retention only upon the following conditions: (i) the Contractor has reached Final Completion as provided in Paragraph 9.09, below, and (ii) the Contract is free of offsets by the City for liquidated damages and defective work and is free of stop notices, forfeitures, and other charges.

D. The Contractor may apply for early release of retention for Work performed by (i) any Subcontractor certified by the City as an LBE or (ii) any Subcontractor under a Contract

with a construction duration of more than two years. The Contractor shall make such application in writing and shall certify the following:

1. That the Subcontractor satisfactorily completed the specified portion of the Work in accordance with the Contract Documents;
2. The total amount paid to the Subcontractor by Contractor as of the date of the written request; and
3. The amount of retention associated with the Work performed by the Subcontractor.
4. Contractor acknowledges and agrees that the release of retention under this subparagraph shall not reduce the responsibilities or liabilities of the Contractor or its surety(ies) under the Contract or applicable law.

9.05 PAYMENT AUTHORIZATION

A. The City will, after receipt of Contractor's Application for Payment, approve such amount as the City determines is properly due.

B. The City will issue payment based on the City's determination that the Work has progressed satisfactorily to the point stated in the application for payment. Payment shall not be a representation that the City has:

1. Inspected the Work exhaustively to check that the quality or quantity are in conformance to the requirements of the Contract Documents; or
2. Reviewed Contractor's means, methods, techniques, sequences, or procedures of construction; or
3. Ascertained how or for what purpose Contractor has used money paid, or determined that title to any of the Work, materials, or equipment has passed to the City free and clear of any liens.

9.06 WITHHOLDING PAYMENT

A. The City may decide not to authorize payment, in whole or in part, to the extent reasonably necessary to protect itself, up to a maximum of 125% of the estimated cost, as determined by the City, to cure or otherwise correct or account for Contractor's failure, if, in the City's judgment, the determination required by subparagraph 9.05B cannot be made. If the City does not authorize payment in the amount of the application, the City will notify Contractor of the reasons for withholding payment. The City may also decline to authorize payment based on subsequently discovered evidence, and the City may nullify the whole or a part of a payment previously issued, up to a maximum of 125% of the estimated cost, as determined by the City, to cure or otherwise correct or account for Contractor's failure, for one or more of the following reasons:

1. The City determines the existence of Non-conforming Work or completed Work that has been damaged, requiring correction or replacement.
2. A third party has filed a claim for damages alleged to arise from Contractor's Work, or there is reasonable evidence indicating probable filing of such claims.
3. The City determines that the Work cannot be completed for the unpaid balance of the Contract Sum.

4. Change Orders have reduced the Contract Sum.
5. The City determines that Contractor is responsible for damage to the City or another contractor.
6. The City determines that Contractor will not complete the Work within the Contract Time and that the current unpaid balance and retention will not be adequate to cover actual or liquidated damages for the anticipated delay.
7. The City determines that Contractor persistently has failed to perform the Work in accordance with the Contract Documents (including, but not limited to, any of the causes enumerated under subparagraph 14.01A).
8. The City determines that Contractor has failed to submit timely PCO cost proposal breakdowns in accordance with the Contract Documents.
9. The City determines that Contractor has failed to comply with any other requirements of the Contract Documents.

9.07 PARTIAL UTILIZATION

A. Whenever the Work, or any part thereof, is in a condition suitable for use in the opinion of the City, and the best interest of the City requires such use, Contractor shall grant the City's written request to permit the City to take possession of and use the Work, or a part thereof, at no additional cost to the City. When so used, City will be responsible for the cost of maintenance and repair due to ordinary wear and tear caused by the City. The use by the City of the Work or part thereof shall in no case be construed as constituting completion or acceptance of Non-conforming Work. Unless otherwise provided elsewhere in the Contract Documents, such use shall neither relieve Contractor of any of its responsibilities under the Contract, nor act as a waiver by the City of any of the conditions thereof.

B. Such Partial Utilization may commence at any time as determined by the City, except that the insurers providing property insurance shall have acknowledged notice thereof and in writing effected any changes in insurance coverage necessitated thereby.

C. If, in response to the City's written request(s) to take possession of and use part of the Work, Contractor believes that a specified part of the Work is Substantially Complete and ready for Partial Utilization, Contractor shall notify the City in writing and request a joint inspection of that part of the Work per the procedures described in Paragraph 9.08. When the City determines that the Work is ready for Partial Utilization, the City will issue a Notice of Partial Utilization, which shall establish the Partial Utilization date. The City will also issue a Punch List for the Work identifying deficient items to be corrected by Contractor prior to Final Completion.

D. Partial utilization of the Work shall not constitute City's acceptance of Work not complying with the requirements of the Contract Documents.

E. Contractor shall perform final cleaning of such partially utilized Work as specified in the Division 01 when directed to do so by the City.

F. The Guarantee to Repair Period, as defined in Paragraph 8.03, will commence upon the date specified in the Notice of Partial Utilization except that the Guarantee to Repair

Periods for that part of equipment or systems that serve portions of the Work for which the City has not taken Partial Utilization or issued a Notice of Partial Utilization shall not commence until the City has taken Partial Utilization for that portion of the Work or has issued a Notice of Substantial Completion for the entire project.

G. Except as provided in this Paragraph 9.07, there shall be no additional cost to the City due to Partial Utilization.

9.08 SUBSTANTIAL COMPLETION

A. Contractor shall notify the City in writing when Contractor considers that the Work is Substantially Complete and request that the City inspect the Work and prepare a Notice of Substantial Completion. Contractor shall attach to Contractor's request for a Substantial Completion inspection a preliminary list of items to be completed or corrected before Final Completion.

B. Within 10 working days from receipt of Contractor's written notification, the City will inspect the Work to determine whether it is Substantially Complete. If the City determines that the Work is not Substantially Complete, the City will provide Contractor with a Punch List / Substantial Completion within 15 working days from Contractor's notice, which lists all Items that Contractor must correct or complete before the City considers the Work Substantially Complete.

C. Once Contractor has completed all items on the Punch List / Substantial Completion, Contractor shall request a second inspection by the City to verify that the Work is Substantially Complete. If the City determines that the Work is not Substantially Complete, the City will follow the same procedure as for the first inspection as described in subparagraph 9.08B. Contractor shall reimburse the City for costs incurred by the City and its consultants related to all additional inspections necessary to achieve Substantial Completion.

D. When the City determines that the Work is Substantially Complete, the City will issue a Notice of Substantial Completion, which shall establish the Substantial Completion date.

E. At the time of delivery of the Notice of Substantial Completion, the City will deliver to Contractor (i) a Punch List / Final Completion identifying deficient items to be corrected by Contractor prior to Final Completion; and (ii) a written determination as to the division of responsibilities regarding close-out requirements including, but not limited to, security, operation, safety, maintenance, heat, utilities, insurance, and warranties.

9.09 FINAL COMPLETION AND FINAL PAYMENT

A. When Contractor considers all Work to be complete, including all items of Work on the Punch List / Final Completion and all closeout requirements, Contractor shall notify the City in writing and request that the City issue a certificate of acceptance.

B. Within 10 working days of receipt of Contractor's written notice, the City will verify whether Contractor has completed all Punch List / Final Completion items. If the City finds that any of the Punch List / Final Completion items are not complete, the City will notify Contractor in writing within 15 working days from Contractor's notice. Contractor shall promptly take actions necessary to complete such Punch List / Final Completion items.

The City will add to or modify the Punch List if it discovers additional non-compliant work prior to Final Completion.

C. Once Contractor considers all deficient Punch List / Final Completion items complete, Contractor shall notify the City in writing and request a second inspection. If the City finds the Punch List / Final Completion items are still not complete, Contractor shall be responsible for all costs for conducting such additional inspections incurred by the City and its consultants before Final Completion. The cost of such inspections shall not be considered a delay cost and shall be charged in addition to any liquidated damages that may become due as a result of Contractor's failure to achieve Final Completion within the time prescribed in Section 00 73 02 (Contract Time and Liquidated Damages). The City may deduct all such costs of the City and its consultants from amounts that are due or become due to Contractor.

D. While deficient Punch List / Final Completion Work is outstanding, the City may, at its option, pay Contractor any earned Contract funds, including retention, subject to offset for the following: (i) funds subject to a certification of forfeiture by the Office of Labor Standards Enforcement and/or stop notice claims and/or funds to be withheld as otherwise required by law or court order; (ii) an amount not to exceed 200% of the total estimated cost of labor and materials to correct any Non-conforming, unacceptable, or incomplete Work; and (iii) amounts assessed for liquidated damages.

E. After Contractor has completed to the satisfaction of the City all Punch List / Final Completion items and close-out requirements in accordance with the Contract Documents, and the Commission issues a Resolution accepting the Work, the City will issue a written certificate of acceptance as required by section 6.22(k) of the Administrative Code stating that the Work is acceptable, and City will pay Contractor the final payment.

F. Contractor and each assignee under any assignment in effect at the time of final payment shall, if required by the City, execute and deliver at the time of final payment, as a condition precedent to final payment, a release in the form specified in Section 01 77 00 (Closeout Procedures) and containing such exceptions as may be found appropriate by the City, discharging the City and the City's consultants, and their directors, officers, members, employees, agents, and authorized representatives of all liabilities, obligations, and Claims arising under this Contract.

9.10 PAYMENT FOR UNDELIVERED LONG LEAD ITEMS; PAYMENT FOR ITEMS DELIVERED AND STORED ON OR OFF THE SITE

A. Long Lead Items Not Delivered to Contractor. In general, the City will not make payments for undelivered equipment or materials. Notwithstanding that general rule, the Contract Documents may, in limited circumstances, authorize partial payment for undelivered equipment or materials that require lengthy fabrication periods. City will issue payment according to and limited to the specific authorization and process set forth in the Agreement Form (Section 00 52 00). The City will not make partial payment for undelivered Items unless the Agreement specifically authorizes such payment.

B. Items Delivered and Stored On or Off the Site. In general, the City will not make partial payment to Contractor for material or equipment procured by Contractor but stored on or

off the Site and not incorporated into the Project. Notwithstanding that general rule, the following exception applies in limited circumstances:

1. The City will, upon written request by Contractor, make partial payment for material or equipment procured by Contractor and not incorporated into the Project subject to the following conditions:

   a. City will not issue partial payment for any materials or equipment unless each individual piece of the material or equipment will become a permanent part of the Work, the materials and/or equipment are required by the Contract Documents, and the materials and/or equipment are specially manufactured for the Project and could not readily be used for or diverted to another job.

   b. City will not issue partial payment for living or perishable plant material, or for degradable materials such as rock, sand, cement, or for reinforcing steel, miscellaneous piping, off the shelf and catalog items, or similar items, until they are incorporated into the Work.

   c. Applicable materials and/or equipment that Contractor either stores on the Site or at an off-Site location if approved in advance and in writing by the City and in compliance with the requirements set forth in this subparagraph.

   d. City's partial payment for materials or equipment stored off the Site shall be limited to the lessor of 75% of the invoice cost or the Bid Item amount less an estimate by the City for installation. Partial payment for materials or equipment stored on the Site shall be limited to the lesser of 95% of the invoice cost or the Bid Item amount less an estimate by the City for installation. Contractor shall provide all documentation necessary to establish the cost of the materials or equipment. The City shall be sole judge of installation costs. The actual percentage paid (subject to the 75% or 95% limit, as applicable) shall be at the discretion of the City.

   e. The General Requirements may set forth additional conditions applicable to partial payment for materials and equipment.

2. The City will not approve a request for partial payment for material or equipment not incorporated into the Project unless Contractor complies with each of the applicable requirements set forth below. City will not issue partial payment until Contractor submits sufficient and satisfactory documentation to the City as required below.

   a. Contractor shall submit to the City Representative proof of off-Site material or equipment purchases, including bills of sale, invoices, unconditional releases, and/or other documentation as requested by the City warranting that Contractor has received the material or equipment free and clear of all liens, charges, security interests, and encumbrances.

   b. Contractor shall submit to the City Representative proof that title to stored Items vested in the City at time of delivery to the Site or off-Site warehouse. Contractor shall be responsible for all costs associated with storage of the Items.

   c. Contractor shall store the materials and/or equipment in a bonded warehouse or facility approved by the City Representative. Contractor shall physically segregate the materials and equipment from all other materials or equipment

within the facility and shall identify them as being the "PROPERTY OF THE CITY AND COUNTY OF SAN FRANCISCO." Contractor shall exercise all measures necessary to ensure preservation of the quality, quantity, and fitness of such materials or equipment and shall perform the manufacturers' recommended maintenance of the materials or equipment. Contractor shall inspect the materials and equipment and shall submit regular reports to the City Representative as specified in the General Requirements, listing all of the equipment stored, results of its inspection, and the maintenance performed.

d. Contractor, at no additional cost to the City, shall insure stored material and/or equipment against theft, fire, loss, vandalism, and malicious mischief, and shall deliver the policy or certificate of such insurance to the City Representative naming the City as an additional insured. Insurance shall not be cancelable for at least 30 days and cancellation shall not be effective until certificate thereof is provided to the City. The insurance shall cover the material or equipment while stored at the approved location, while in transit to the Site, while being off-loaded at the Site and until the material or equipment is incorporated into the Work and the Work is accepted by the City.

e. Contractor shall submit to the City Representative written consent from Contractor's sureties approving the partial payment for Items stored on or off Site. The written consent must include a statement confirming that remittance of the advance payment will not relieve the sureties of any of their obligations under the Bonds.

f. Stored material or equipment shall be available for inspection by the City at all times. Contractor shall, upon request, assist the City Representative in conducting a full view, piece-by-piece, inventory of all such material or equipment.

g. Contractor shall protect stored material and equipment from damage. Damaged material and/or equipment, even though paid for, shall not be incorporated into the Work. In the event of loss or damage to paid material and/or equipment, Contractor shall be responsible for replacing such lost or damaged material and/or equipment at its own cost and shall be responsible for all delays incurred to the Project as a result of such loss or damage. Consistent with Paragraph 9.06, the City may nullify the whole or a part of an advance payment previously issued in the event that Contractor fails to replace lost or damaged material and/or equipment at its own cost.

h. Contractor shall deliver stored material and equipment to the Site. After delivery, if Contractor or City discovers any inherent or acquired defects in such material and/or equipment, Contractor shall remove and replace any defective Items with suitable Items at no additional cost to the City. Contractor shall be responsible for all delays incurred to the Project resulting from the removal and replacement of defective material and/or equipment. Consistent with Paragraph 9.06, the City may nullify the whole or a part of an advance payment previously issued in the event that Contractor fails to remove and replace defective Items.

3. Nothing in this Paragraph 9.10 shall relieve Contractor of its responsibility for incorporating material and equipment into the Work that conform to the requirements of the Contract Documents.
4. Contractor shall absorb any and all costs incurred to meet the requirements of this Paragraph 9.10 without modification to the Contract Sum.

ARTICLE 10 - INSURANCE AND BONDS

10.01 INSURANCE REQUIREMENTS

Contractor shall purchase and maintain in force throughout the Contract Time such liability and other insurance as provided in Section 00 73 16 (Insurance Requirements).

10.02 PERFORMANCE BOND AND PAYMENT BOND

A. At the time of execution of the Contract, Contractor shall file with the City the following bonds using the forms provided in Section 00 61 13 (Performance and Payment Bond Form) and Section 00 61 13/R (Performance and Payment (Labor and Material) Bond Rider Form):

1. A corporate surety bond, in a sum not less than 100% of the Contract Sum, to guarantee the faithful performance of the Contract ("Performance Bond"); and
2. A corporate surety bond, in a sum not less than 100% of the Contract Sum, to guarantee the payment of labor, materials, supplies, and equipment used in the performance of the Contract ("Payment Bond").

B. Said Performance Bond shall cover all corrective Work required during the Guarantee to Repair Period, all warranty and maintenance Work required by the Contract Documents, and any and all Work required to correct latent defects.

C. Corporate sureties issuing these bonds and Bid bonds as specified in Section 00 21 13 (Instructions to Bidders) and Section 00 52 00 (Agreement Form) must be legally authorized to engage in the business of furnishing surety bonds in the State of California. All sureties must have either a current A.M. Best Rating not less than "A-, VIII" or must be listed in the current version of the United States Department of the Treasury's Listing of Approved Sureties (Department Circular 570), and must be satisfactory to the City.

ARTICLE 11 - LABOR STANDARDS

11.01 PREVAILING WAGES

A. It is hereby understood and agreed that all provisions of section 1770, et seq., of the California Labor Code are required to be incorporated into every contract for any public work or improvement and are provisions of this Contract.

B. It is hereby understood and agreed that all provisions of sections 6.22(e) and 6.22(f) of the Administrative Code are incorporated as provisions of the Contract Documents including, but not limited to, the following:

1. Contractor shall pay to all persons performing labor in and about the Work not less than the highest general prevailing rate of wages determined as set forth herein for the respective crafts and employments, including such wages for holiday and overtime work.
2. Contractor shall insert in every subcontract or other arrangement, which it may make for the performance of any Work or labor on the Work, a provision that said Subcontractor shall pay to all persons performing labor or rendering service under said subcontract or other arrangement the highest general prevailing rate of wages determined as set forth herein for the respective crafts and employments, including such wages for holiday and overtime work.
3. Contractor shall keep or cause to be kept complete and accurate payroll records for all persons performing labor in or about the Work. Such records shall include the name, address, and social security number of each worker who provided labor, including apprentices, his or her classification, a general description of the services each worker performed each day, the rate of pay (including rates of contributions for, or costs assumed to provide fringe benefits), daily and weekly number of hours worked, deductions made, and actual wages paid. Every Subcontractor that shall undertake the performance of any part of the Work herein required shall keep a like record of each person engaged in the execution of the subcontract. All such records shall at all times be available for inspection of and examination by the City and its authorized representatives and the California Department of Industrial Relations.
4. Should Contractor, or any Subcontractor that undertakes the performance of any portion of the Work herein required, fail or neglect to pay any person who performs labor under this Contract, subcontract, or other arrangement for the Work, the highest general prevailing rate of wages as herein specified, Contractor shall forfeit, and in the case of any Subcontractor so failing or neglecting to pay said wage, Contractor and the Subcontractor shall jointly and severally forfeit back wages due plus the penalties set forth in Labor Code section 1775, but not less than $50 per day per worker.
5. Any person performing labor or rendering service in the performance of the Contract or a subcontract for the Work herein required may not perform labor for a longer period than five days (Monday-Friday) per calendar week of eight hours each (with two 10-minute breaks per eight-hour day), except in those crafts in which a different work day or week now prevails by agreement in private employment. Contractor or any Subcontractor shall compensate any person working hours in excess of the foregoing limitations in accordance with the prevailing overtime standard and rates. Contractor or any Subcontractor that violates this provision shall forfeit back wages due plus the penalties set forth in Labor Code section 1775, but not less than $50 per worker per day.

C. The most current highest prevailing wage rate determinations made at the time of the advertisement for Bids are hereby incorporated as part of the Contract Documents. No adjustments in the Contract Sum will be allowed for increases or decreases in prevailing wage rates that may occur during the Contract Time.

1. Copies of the prevailing wage rates are available from the contracting department and are also available on the Internet at http://www.dir.ca.gov/DLSR/PWD.

2. Payments to a craft or classification not shown on the prevailing rate determinations shall comply with the rate of the craft or classification most closely related to it. Contact the California Division of Labor Statistics and Research, Prevailing Wage Unit at telephone (415) 703-4774 for job classifications not listed in the General Prevailing Wage Determinations of the Director of Industrial Relations.

D. All Work is subject to compliance monitoring and enforcement of prevailing wage requirements by the California Department of Industrial Relations and the San Francisco Office of Labor Standards Enforcement.

E. Contractor shall post job site notices prescribed by the California Department of Industrial Relations at all job sites where Work is to be performed.

11.02 PAYROLLS

A. Certified Payroll Records: Contractor shall comply with the requirements of section 1776 of the California Labor Code, or as amended from time to time, regarding the preparation, keeping, filing, and furnishing of certified copies of payroll records of wages paid to its employees and to the employees of its Subcontractors of all tiers.

1. Contractor shall certify the accuracy and completeness of payroll records under penalty of perjury and submit payroll information electronically to the City and, where required, to the California Department of Industrial Relations, as set forth in Paragraph 9.03M. In addition, Contractor shall make the payroll records available for inspection at all reasonable hours at the job site office of Contractor on the following basis:

   a. Contractor shall make available for inspection or shall furnish a certified copy of an employee's payroll record to any employee or his or her authorized representative upon request.

   b. Contractor shall make available for inspection or shall furnish a certified copy of all payroll records to a representative of the City upon City's request.

   c. Contractor shall make a certified copy of all payroll records available upon request to the public for inspection or copies thereof made; provided, however, that a request by the public shall be made through either the City, the Division of Apprenticeship Standards, or the Division of Labor Standard Enforcement. Contractor shall not provide the public access to such records at the job site office of Contractor.

   d. Contractor shall file a certified copy of the payroll records with the entity that requested such records within 10 days after receipt of a written request.

2. In providing copies of payroll records to any requestor, the Contractor shall redact or obliterate such information as may be required under California Labor Code section 1776(e), as that section may be amended from time to time.

3. Contractor shall inform the City of the location of the payroll records, including the street address, city and county, and shall, within five working days, provide a notice of any change of location and address.

4. In the event that Contractor receives a written notification of noncompliance with section 1776, Contractor shall have 10 days from receipt of such written notice to

comply. Should noncompliance still be evident after such 10-day period, Contractor shall forfeit the penalties set forth in Administrative Code section 6.22(e) and (f) and/or California Labor Code section 1776. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, City shall withhold such penalties from the Contract Sum.

5. Contractor is solely responsible for compliance with section 1776. The City shall not be liable for Contractor's failure to make timely or accurate submittals of certified payrolls.

11.03 APPRENTICES

A. Contractor and its Subcontractors of every tier shall, as a material term of the Contract, comply with the requirements of the State Apprenticeship Program (as set forth in the California Labor Code, division 3, chapter 4 [commencing at section 3070], and section 1777.5) and Administrative Code, section 6.22(n). Contractor shall be solely responsible for securing compliance with section 1777.5 for all apprenticeable occupations.

1. Contractor shall comply with all requests by the City to provide proof that Contractor and all of its Subcontractors at every tier are in compliance with the State Apprenticeship Program.
2. Contractor shall include in all of its subcontracts the obligation for Subcontractors of every tier to comply with the requirements of the State Apprenticeship Program.
3. Section 1777.5 does not apply to contracts of general contractors or to contracts of specialty contractors not bidding for work through a general or prime contractor when the contracts of general contractors or those specialty contractors involve less than $30,000.

B. Should Contractor fail to comply with the apprenticeship requirements of section 1777.5, Contractor shall be subject to the penalties prescribed in section 1777.7 of the California Labor Code. The interpretation and enforcement of section 1777.5 shall be in accordance with rules and procedures prescribed by the California Apprenticeship Council.

C. Contractor, if not signatory to a recognized apprenticeship training program under chapter 4 of the California Labor Code, shall provide to the City with all progress payment requests, starting with the second such request, satisfactory evidence that it has contributed to the appropriate apprenticeship fund(s). Contractor shall require its Subcontractors who are not signatories to provide such evidence to the City as a condition precedent to qualifying for payment from the City. The City reserves the right to demand such evidence upon request.

11.04 LABOR STANDARDS ENFORCEMENT

A. All Work is subject to compliance monitoring and enforcement of prevailing wage requirements by the California Department of Industrial Relations ("DIR") and the San Francisco Office of Labor Standards Enforcement.

B. In accordance with Administrative Code section 6.22(e)(7) and section 6.24 and the applicable sections of the California Labor Code, Contractor further acknowledges and agrees as follows:

1. Contractor must cooperate fully with the DIR and the Labor Standards Enforcement Officer and other City employees and agents authorized to assist in the administration and enforcement of the prevailing wage requirements and other labor standards imposed on public works contractors by the Charter, Chapter 6 of the Administrative Code, and the applicable sections of the California Labor Code.
2. Contractor agrees that the DIR and the Labor Standards Enforcement Officer and his or her designees, in the performance of their duties, shall have the right to engage in random inspections of job sites and to have access to the employees of the contractor, employee time sheets, inspection logs, payroll records, and employee paychecks.
3. Contractor shall maintain a sign-in and sign-out sheet showing which employees are present on the job site.
4. Contractor shall post job site notices prescribed by the California Department of Industrial Relations at all job sites where Work is to be performed.
5. The DIR and the Labor Standards Enforcement Officer may audit such records of Contractor deemed reasonably necessary to determine compliance with the prevailing wage and other labor standards imposed by the Charter, Chapter 6 of the Administrative Code, and the applicable sections of the California Labor Code.

C. Under California Public Contract Code section 6109, Contractor or Subcontractors that are ineligible to Bid or work on, or be awarded, a public works project under California Labor Code sections 1777.1 or 1777.7, are prohibited from performing Work on the Project.

1. Any contract for the Project entered into between Contractor and a debarred Subcontractor is void as a matter of law.
2. Contractor may not pay any public money to a debarred Subcontractor for performing work as a Subcontractor on a public works project. Contractor shall return to the City any public money that may have been paid to a debarred Subcontractor by Contractor.
3. Contractor shall be responsible for the payment of wages to workers of a debarred Subcontractor that Contractor allowed to work on the Project.

ARTICLE 12 - SAFETY

12.01 PRECAUTIONS AND PROGRAMS

A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Contractor shall be solely responsible for any and all fines, penalties, or damages that result from Contractor's failure to comply with applicable health and safety laws and regulations during performance of the Work. Refer also to Section 00 73 19 (Health and Safety Requirements).

B. Contractor shall designate in writing a responsible competent person of Contractor's organization at the Site as Project safety representative whose principal duties shall be the prevention of accidents and the maintenance and supervision of safety precautions and programs in accordance with the requirements of applicable laws and regulations. This person shall be available 24 hours a day, 7 days a week by telephone or other approved means.

C. Contractor shall perform all Work relating to hazardous materials as required by the Contract Documents. Contractor and its Subcontractors shall comply with all federal, state, and local statutes and regulations on training, handling, storage, public notification, and disposal of hazardous materials and hazardous wastes. In the event that Contractor or its Subcontractors (i) introduces and/or discharges, spills, or releases a hazardous material in a manner not specified by the Contract Documents; and/or (ii) disturbs a hazardous material identified in the Contract Documents or Available Project Information, the Contractor shall immediately notify the City Representative and any required agencies of the spill, release, or discharge and Contractor shall stop the Work, and cordon off the affected area to secure entry. At the discretion of the City, either (i) the City at Contractor's expense will or (ii) the Contractor through a qualified remediation Subcontractor at Contractor's expense shall remove and dispose of the hazardous material if deemed necessary by the City. Under no circumstance may the Contractor perform remediation Work for which it is not qualified.

D. Should Contractor or any of its Subcontractors, while performing Work on the Site, unexpectedly encounter any hazardous material not shown in the Contract Documents or Available Project Information or have reason to believe that any other material encountered may be a hazard to human health and safety and/or the environment, Contractor shall stop the Work, cordon off the affected area to secure entry, and shall immediately notify the City Representative. If deemed necessary by the City, City will direct removal and disposal of the hazardous material not shown in the Contract Documents or Available Project Information at the City's expense. In the event that Contractor is delayed in the completion of the Contract Work solely because of such hazardous materials or conditions not previously identified in the Contract Documents or Available Project Information, the Contractor may be entitled to an extension of time in accordance with Article 7 of these General Conditions.

12.02 PERSONS AND PROPERTY

A. Contractor shall take all necessary precautions for safety of, and shall provide the necessary protection to prevent damage, injury, or loss to the following:

1. All persons on the Site or others who may be affected by the Work;
2. The Work and the materials and equipment to be incorporated therein, whether in storage on or off the Site; and
3. Other property at the Site or adjacent thereto including, but not limited to, trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not indicated to be removed, relocated, or replaced on the Contract Documents.

B. Contractor shall give notices required by California Civil Code section 832 and shall comply with all applicable laws, ordinances, rules, regulations, and lawful orders of public authorities bearing on safety of persons or property or their protection from damage, injury, or loss.

C. Contractor shall notify owners of adjacent property, underground facilities and utilities, such as PG&E, AT&T, Municipal Transportation Agency / Municipal Railway, Water Supply and Treatment Division, Hetch Hetchy Water and Power, and the San Francisco Public Utilities Commission, of Contractor's operations a reasonable time in advance thereof so as to permit the owners to make suitable markings on the street surface of the

locations of such facilities. After such markings have been satisfactorily made, Contractor shall maintain them as long as necessary for the proper conduct of the Work.

D. Contractor shall not hinder or interfere with an owner or agency having underground facilities and utilities when removing, relocating, or otherwise protecting such facilities.

E. Contractor shall erect and maintain, as required by existing conditions and performance of the Contract, safeguards for safety and protection, such as posting danger signs and other warnings against hazards; promulgating safety regulations; and notifying owners and users of adjacent sites, underground facilities, and utilities of Contractor's operations.

F. Contractor shall perform all Work in such manner as to avoid damage to existing underground facilities and other utilities in the process of their removal or adjustment and to avoid damage to such facilities lying outside of or below a required excavation or trench area which are intended to remain in place.

G. Contractor shall be responsible for coordinating the exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with applicable laws and regulations.

H. In the event of damage or loss to property referred to in the previous subparagraphs, whether caused by Contractor, its Subcontractors or Lower-Tier Subcontractors, Contractor shall promptly remedy such damage or loss, except such damage or loss attributable to the sole negligent acts or omissions of the City. The foregoing obligations of Contractor are in addition to Contractor's obligations under Paragraph 3.20 of these General Conditions.

I. Pursuant to section 6705 of the California Labor Code, Contractor shall not begin excavation for trenches five feet or more in depth until Contractor has received acceptance from the City of Contractor's detailed plan for worker protection from the hazards of caving ground during excavation of such trenches. Contractor shall submit a shoring plan in accordance with the requirements of the Specifications and shall show the details and supporting calculations of the design of shoring, bracing, sloping, or other provisions to be made for worker protection during such excavation. No plan may allow the use of shoring, sloping, or other protective system less effective than that required by the Construction Safety Orders of the Division of Occupational Safety and Health. If Contractor's shoring plan varies from the shoring system standards established by the Construction Safety Orders, the plan shall be prepared and sealed by an engineer retained by Contractor who is registered as a civil or structural engineer in the State of California. The City's acceptance of Contractor's shoring plan shall not be construed to relieve Contractor of its sole responsibility for damage or injuries related to the excavation resulting from unsafe shoring.

J. Contractor shall be responsible for each operation and all Work, both permanent and temporary. Contractor shall protect its Work and materials and fully or partially completed work of the City or separate contractors from damage due to construction operations from its Work, the action of the elements, the carelessness of its Subcontractors, vandalism, graffiti, or any other cause whatsoever, until Final Completion of the Work. If a separate contractor covers over or integrates Contractor's improper Work with its own work, then Contractor is responsible for the cost to correct any damage or defects its improper Work

caused to the separate contractor's work, and also the cost of removing and replacing the separate contractor's work in order to access and correct the improper Work, without any expense to the City.

12.03 SAFETY PERMITS

A. Contractor shall obtain and pay for a California industrial safety permit for any of the following activities if applicable:

1. The construction of a building, structure, false work, or scaffolding more than 3 stories or the equivalent of 35 feet height; or
2. The demolition of a building, structure, false work, or scaffolding more than 3 stories or the equivalent of 35 feet height; or
3. The excavation of a trench 5 feet deep or deeper into which a person must descend.
4. Contractor shall obtain and pay for all other required safety permits.

12.04 EMERGENCIES

In emergencies affecting the safety or protection of persons or property at the Site, Contractor shall act promptly to prevent threatened damage, injury, or loss. Contractor shall give prompt written notice to the City if Contractor believes that, due to the nature of the emergency or circumstances related thereto, any significant changes in the Work or variations in the Contract Documents have been caused thereby or are required as a result thereof. If the City determines that a change in the Contract Documents is required because of action taken by Contractor in response to such an emergency, the City will issue a Change Order or Unilateral Change Order as provided in Article 6.

ARTICLE 13 - CONTRACT AND GOVERNMENT CODE CLAIMS

13.01 CLAIMS GENERALLY

A. The City and Contractor acknowledge and agree that early identification and resolution of potential claims or disputes benefits all parties and advances the success of the Project.

B. The notice requirements and procedures set forth under this Article 13 are necessary for the City to address potential claims and disputes. Having knowledge of potential claims prior to the Contractor performing disputed Work and having documentation from the Contractor concerning a dispute as Work is being performed is critical for the City to make informed decisions that could impact the budget and schedule for the Project.

C. Contractor's compliance with the Notice of Potential Claim and Contract Claim submission procedures prescribed in this Article are condition precedents to the right to file a Government Code Claim under California Government Code section 900, et seq., and Administrative Code Chapter 10. As set forth in Paragraph 13.04, Contractor's submittal of timely and proper Notices of Potential Claims and Contract Claims may, in some circumstances, toll Contractor's compliance with the Government Code Claim requirements until the Contract Claim process is finally completed. Refer to Paragraph 13.04, below. Contractor's timely submittal of both a properly completed Contract Claim

and a Government Code Claim are conditions precedent to commencing litigation against the City for disputes arising out of or related to this Contract and not expressly excluded from the Contract Claim process by Contractor by subparagraph 13.01D, below. Disputed issues not timely raised and properly documented by Contractor in conformance with this Article shall be deemed waived by the Contractor and may not be asserted in a Government Code Claim, subsequent litigation, or legal action. Furthermore, by executing this Contract, Contractor waives any and all claims or defenses of waiver, estoppel, release, bar, or any other type of excuse of non-compliance with the Contract Claim submission requirements.

D. The Contract Claim procedures specified in this Article 13 do not apply to the following: (i) claims respecting penalties for forfeitures prescribed by statute or regulation that a government agency is specifically authorized to administer, settle, or determine; (ii) claims respecting personal injury, death, reimbursement, or other compensation arising out of or resulting from personal injury of death; (iii) claims by the City; or (iv) stop notices.

E. The requirements of this Article 13 shall survive expiration or termination of this Contract.

13.02 NOTICE OF POTENTIAL CLAIM

A. If, during the course of the Project, the Contractor seeks an adjustment of the terms of the Contract Documents, an adjustment to the Contract Sum and/or Contract Time, or other relief with respect to the Contract Documents, including a determination of disputes or matters in question between the City and the Contractor arising out of or related to the Contract Documents or the performance of Work (including without limitation determination of delay, assessment of liquidated damages, Proposed Change Orders, Unilateral Change Orders, denial of Change Order Requests, payment, nonpayment, termination for cause, termination for convenience, or other act by the City impacting or potentially impacting payment, nonpayment, withholding, or the performance of the Work), then the Contractor must submit to the City a timely Notice of Potential Claim to preserve its right to seek such additional compensation and/or time.

B. Contractor must submit a Notice of Potential Claim to the City within seven days of the event, activity, occurrence, or other cause giving rise to a potential Claim. For potential Claims that involve or relate to a change, addition or deletion to the Work, Contractor's seven-day period to submit a Notice of Potential Claim will commence when the City Representative issues a final written decision denying, in whole or in part, Contractor's Change Order Request or other proper request for adjustment to the Contract Sum and/or Contract Time. Any failure by Contractor to comply with required notice and submittal requirements for Change Order Requests (Article 6) or Differing Site Conditions (Paragraph 3.04) shall constitute grounds for City to deny any related Claim.

C. A Notice of Potential Claim shall describe the nature and circumstances of the potential claim event, set forth the reason(s) for which Contractor believes additional compensation and/or time will or may be due, and provide a good faith estimate of the cost and/or time impact to which Contractor believes it may be entitled. Contractor's Notices of Potential Claims submitted pursuant to Paragraph 3.04 (Differing Site Conditions) must also identify the Escrow Bid Documents that formed the basis of Contractor's Bid to perform the Work affected by the alleged Differing Site Condition.

D. A Notice of Potential Claim provides early notice to the City of a disputed issue and provides the City with the opportunity to mitigate associated costs, allowing for early resolution. Failure by Contractor to submit a timely Notice of Potential Claim shall constitute a waiver of any claim arising out of the event, activity, occurrence, or other cause giving rise to the potential Claim.

E. The requirements of Paragraph 13.02 apply regardless of whether or not the disputed issue underlying a potential claim event has been or will be submitted to an issue resolution/escalation ladder, Dispute Review Board, Dispute Resolution Advisor, or similar dispute resolution process that may be required by the Contract Documents.

13.03 CONTRACT CLAIM

A. General. A Contract Claim shall be the Contractor's sole and exclusive administrative remedy for seeking additional compensation or time associated with its performance of the Work under the Contract. Failure to submit a timely, certified, and documented Contract Claim in conformance with this Article shall constitute a waiver by the Contractor as to any claims relating to its performance of the Work under the Contract and a failure to exhaust its administrative remedies.

B. Deadline to Submit Contract Claim. The time to submit a Contract Claim will depend on the dispute resolution process(es) that are incorporated into the Contract Documents.

1. If the Contract Documents require the establishment of an issue resolution/escalation ladder, Dispute Review Board, Dispute Resolution Advisor, or similar mandatory or optional supplemental dispute resolution process(es), and Contractor timely refers a disputed issue to the applicable process(es), then the time to submit a Contract Claim shall be extended as set forth in the Contract Document that implements the supplemental dispute resolution process(es). For example, as set forth in Section 00 73 10 (Dispute Resolution Advisor), if used, for disputes reviewed by a Dispute Resolution Advisor and heard using a formal Dispute Meeting, Contractor must submit any certified Contract Claim for the dispute no later than 15 days after expiration of the acceptance period for the DRA Report. Contractor's timely referral of a disputed issue to a supplemental dispute resolution process that the Contract Documents identify as mandatory (e.g., Dispute Review Board) is a prerequisite to filing a Contract Claim under this Article. By failing to refer timely a disputed issue to the applicable mandatory supplemental dispute resolution process specified in the Contract Documents, Contractor waives future Contract Claims relating to the disputed issue.

2. The following Contract Claim submittal requirements apply (i) if the Contract Documents do not establish a supplemental dispute resolution process or (ii) the Contract Documents establish an optional supplemental dispute resolution process(es) and Contractor elects to not refer the disputed issue to an optional supplemental dispute resolution process. In such cases, Contractor may file a Contract Claim only as to disputed issues presented to and rejected by the City Representative through the Notice of Potential Claim process set forth in Paragraph 13.04, below. The City Representative will respond, in writing, to Contractor's Notice of Potential Claim, submitted in accordance with Paragraph 13.04, within 30 days of receipt of the Notice. If the City Representative requires additional time to issue a determination, he or she will notify the Contractor of the same in writing, within the initial 30-day review

period. If Contractor disputes the City Representative's written determination and wishes to preserve its right to pursue the disputed issue, Contractor must submit any subsequently filed Contract Claim within 15 days of receipt of the City Representative's written determination on the Notice of Potential Claim. In the event that the City Representative does not issue a written determination on Contractor's Notice of Potential Claim within the prescribed period, the Contractor must submit a Contract Claim either within 15 days of the expiration of the prescribed period, or 45 days of submitting its Notice of Potential Claim, whichever is later, if Contractor wishes to preserve its right to pursue the disputed issue.

C. Contract Claim Certification Requirement:

1. Contractor, under penalty of perjury, must submit with the Contract Claim a certification by Contractor and its Subcontractor(s), as applicable, that:

   a. the Claim is made in good faith;

   b. supporting data are accurate and complete to the best of Contractor's, or Contractor's and Subcontractor's, as applicable, knowledge and belief; and

   c. the amount requested accurately reflects the Contract adjustment for which Contractor believes the City is liable.

2. An individual or officer who is authorized to act on Contractor's behalf must execute the certification. Failure of an authorized Contractor representative to certify a claim under penalty of perjury shall render the Contract Claim a nullity and the underlying claim waived by the Contractor.

3. In regard to a Claim or portion of a Claim by a Subcontractor, Contractor shall fully review the Subcontractor's Claim and shall certify the Subcontractor's Claim or such relevant portion(s) of the Subcontractor's Claim, under penalty of perjury, in the same manner the Contractor would certify its own claim under the foregoing subparagraph 13.03C.1. The City will not consider a direct claim by any Subcontractor. Subcontractors at any tier are not third-party beneficiaries of this Contract.

4. Contractor hereby agrees that failure to furnish certification as required in this Article shall constitute a waiver by the Contractor as to the subject Claim.

5. Contractor further acknowledges and agrees that if it submits a false claim, on behalf of itself or a Subcontractor, Contractor may be subject to civil penalties, damages, debarment, and criminal prosecution in accordance with local, state, and federal statutes.

D. Format of a Contract Claim:

1. The Contractor shall document its Contract Claim in the following format:

   a. Cover letter and certification.

   b. Narrative Summary of Claim merit and amount, and clause under which the Claim is made.

   c. List of documents relating to Claim:

      1) Specifications

2) Drawings

3) Clarifications/RFIs

4) Correspondence

5) Schedules

6) Other

d. Chronology of events and correspondence.

e. Analysis of Claim merit.

f. Analysis of Claim cost (money and time).

g. Attachments:

1) Specifications

2) Drawings

3) Clarifications/RFIs

4) Correspondence

5) Schedules

6) Other

E. Additional Requirements for Contract Claims Seeking Time Extensions or Contesting the Assessment of Delay:

1. All Contract Claims seeking time extensions or challenging the assessment of delay and/or liquidated damages shall include, in addition to all other applicable requirements of this Article 13, a written analysis of all changes and all delays impacting the as-built critical path (the "As-Built Schedule Analysis"). Contractor shall base its As-Built Schedule Analysis on an as-built schedule that incorporate all actual start and finish dates, actual durations of activities, and actual sequences of construction. Contractor shall obtain the as-built schedule from the most recent baseline schedule or progress schedule update as of the time of the activity, occurrence, or other cause giving rise to the Claim. Contractor shall create the as-built schedule as an early start schedule, and the schedule shall use the original activity durations for all incomplete Work and the actual logic driving all activities. The As-Built Schedule Analysis shall incorporate all delays (including City, Contractor and third-party Unavoidable Delays without exception) in the time frame that they occurred with actual logic ties. As part of its review of Contractor's As-Built Schedule Analysis, the City will determine the critical path and identify any City-caused and/or third-party-caused delays (if any) on the critical path. The City will not review or consider any Contract Claim seeking time extensions or contesting the assessment of delay (including liquidated damages) that does not include an As-Built Schedule Analysis that meets the requirements of this subparagraph.

F. Procedure for Review of a Contract Claim:

1. The City shall review only a timely, certified, and properly documented Contract Claim.

2. The City shall respond to a Contract Claim in writing within 45 days of receipt of such Claim. In its response, the City shall either grant or deny the Claim in whole or in part. If the City does not respond to a Claim within the 45-day period, the Claim shall be deemed denied in its entirety.
3. Within 10 days of the date of the City's response or expiration of the 45-day period, whichever is earlier, the Contractor may request review of the Contract Claim and the City's response by the Department Head. The request must be in writing, directed to the Department Head and copied to the City Representative. Failure by the Contractor to make a timely request to the Department Head, copied to the City Representative, shall constitute acceptance by the Contractor of the City's original response.
4. Upon a timely and proper request, the Department Head, or designee (other than personnel assigned to the Project), shall review the relevant documents, meet with the Contractor and City personnel assigned to the Project, and confirm or revise the City's response to the Contract Claim. The Department Head shall issue such determination within 60 days of the date of the request for review. The determination by the Department Head shall constitute the final administrative determination of the City. If the Department Head takes no action on a request for review within the 60-day period, the City's original response shall constitute the final administrative determination by the City.

13.04 GOVERNMENT CODE CLAIM

For the purposes of this Contract, the City and the Contractor hereby agree that any action at law against the City arising out of or relating to Contractor's performance of the Work shall accrue either on the effective date of termination (under Article 14 of these General Conditions) or on the date of Substantial Completion, whichever is earlier. Notwithstanding the foregoing, the timely submittal of a complete and proper Notice of Potential Claim and Contract Claim under the administrative procedure specified in this Article 13 shall operate to toll Contractor's compliance with the Government Code Claim requirements under California Government Code section 900, et seq., and Administrative Code Chapter 10 until the City issues a final administrative determination per subparagraph 13.03F.4.

ARTICLE 14 - TERMINATION OR SUSPENSION OF THE CONTRACT

14.01 NOTICE OF DEFAULT; TERMINATION BY THE CITY FOR CAUSE

A. Grounds for Default. Contractor will be in Default of the Contract if Contractor:

1. Refuses or fails to supply enough properly skilled workers, adequate and proper materials, or supervision to prosecute the Work at a rate necessary to complete the Work within the specified limits of Contract Time, in accordance with the currently accepted updated progress schedule; or
2. Is adjudged bankrupt, makes a general assignment for the benefit of its creditors, or a receiver is appointed on account of its insolvency; or
3. Refuses or fails in a material way to replace or correct Work not in conformance with the Contract Documents; or

4. Repeatedly fails to make prompt payment due to Subcontractors or for labor; or
5. Materially disregards or fails to comply with any law, ordinance, rule, regulation, or order of any public authority having jurisdiction; or
6. Intimidates or sexually harasses a City employee, agent, or member of the public; or
7. Is otherwise in material breach of any provision of the Contract Documents.

B. Notice of Default. When any of the aforementioned grounds for Default exist, the City may, without prejudice to any other rights or remedies that the City may have, issue a written Notice of Default to the Contractor. The City shall provide a copy of any Notice of Default to the Contractor's surety.

1. The Notice of Default shall identify the ground(s) for Default and provide the Contractor with a 14-day cure period to complete necessary corrective Work and/or actions.
2. In the event that necessary corrective Work and/or actions cannot be completed within the 14-day cure period through no fault of Contractor or its Subcontractors/ Suppliers, Contractor shall, within the 14-day cure period, (i) provide the City with a schedule, acceptable to the City, for completing the corrective Work and/or actions; and (ii) commence diligently performance of the corrective Work and/or actions. The City, after accepting Contractor's proposed schedule, will amend the Notice of Default in writing to set forth the agreed-upon cure period. The City will provide a copy of the amended Notice of Default to the Contractor's surety.

C. Termination for Cause. If Contractor fails to cure the Default completely either (i) within the 14-day cure period set forth in the Notice of Default; or (ii) within the agreed-upon cure period set forth in an amended Notice of Default, the City may, without prejudice to any other rights or remedies that the City may have, immediately terminate employment of Contractor and, subject to the prior rights and duties of the surety under any bond provided in accordance with the Contract Documents:

1. Take possession of the Site and use any materials, equipment, tools, and construction equipment and machinery thereon owned by Contractor to complete the Project;
2. Accept assignment of subcontracts and agreements pursuant to Paragraph 4.03; and
3. Finish the Work by whatever reasonable method the City may deem expedient.

D. If the City terminates the Contract for one of the grounds set forth in subparagraph 14.01A, Contractor shall not be entitled to receive further payment until the Work is finished. If the unpaid balance of the Contract Sum exceeds the cost of finishing the Work, including all liquidated damages for delays, such excess shall be paid to Contractor. If such costs exceed the unpaid balance, Contractor shall pay the difference to the City. The amount to be paid to Contractor or City, as the case may be, upon application, shall be an obligation for payment that shall survive termination of the Contract.

1. Upon completion of all Work, Contractor shall be entitled to the return of all its materials that have not been used in the Work, its plant, tools, equipment, and other property provided, however, that Contractor shall have no claim on account of usual and ordinary depreciation, loss, or wear and tear.

E. If, after termination of the Contractor's right to proceed, the City determines that the Contractor was not in default or that the delay was excusable, the rights and obligations of the parties, including adjustment of the Contract Sum, will be the same as if the termination had been issued for the convenience of the City, as provided under Paragraph 14.03.

14.02 SUSPENSION BY THE CITY FOR CONVENIENCE

A. The City may, without cause, order Contractor in writing to suspend, delay, or interrupt the Work in whole or in part for such period of time as the City may determine.

B. City will make an adjustment as specified in subparagraph 7.02A for increases in the cost of performance of the Contract caused by suspension, delay, or interruption. City will not make an adjustment to the extent that:

1. Performance is, was, or would have been so suspended, delayed, or interrupted by another cause for which Contractor is responsible; or
2. City denies a request for an adjustment under another provision of this Contract.

14.03 TERMINATION BY THE CITY FOR CONVENIENCE

A. Pursuant to section 6.22(l) of the Administrative Code the City may terminate the performance of Work under this Contract in accordance with this Paragraph 14.03 in whole or, from time to time, in part, whenever the City shall determine that such termination is in the best interest of the City. City shall deliver written notice of any such termination to Contractor specifying the extent to which performance of Work under the contract is terminated, and the date upon which such termination becomes effective.

B. Except as otherwise directed by the City, after Contractor receives a notice of termination, it shall comply with all of the following requirements:

1. Stop Work under the Contract on the date and to the extent specified in the notice of termination.
2. Place no further orders or subcontracts for materials, services, or facilities except as necessary to complete the portion of the Work under the Contract that is not terminated.
3. Terminate all orders and subcontracts to the extent that they relate to the performance of Work terminated by the notice of termination.
4. Assign to the City, in the manner, at the times, and to the extent directed by the City, all of the rights, title, and interest of Contractor under the orders and subcontracts so terminated. The City shall have the right, at its discretion, to settle or pay any or all Claims arising out of the termination of such orders and subcontracts.
5. Settle all outstanding liabilities and all Claims arising out of such termination of orders and subcontracts with the approval or ratification of the City, in writing, to the extent it may require. The City's approval or ratification shall be final for all the purposes of this Paragraph 14.03.
6. Transfer title to the City, and deliver in the manner, at the times, and to the extent, if any, directed by the City, (i) the fabricated or unfabricated parts, Work in process, completed Work, supplies, and other material produced as a part of, or acquired in connection with the performance of, the Work terminated by the notice of termination,

and (ii) the completed or partially completed drawings, information, and other property which, if the Contract had been completed, would have been required to be furnished to the City.

7. Use its best efforts to sell, in the manner, at the times, to the extent, and at the price or prices that the City directs or authorizes, any property of the types previously referred to herein, but Contractor (i) shall not be required to extend credit to any purchaser, and (ii) may acquire any such property under the conditions prescribed and at a price or prices approved by the City. Contractor shall apply the proceeds of any such transfer or disposition in reduction of any payments to be made by the City to Contractor under this Contract or shall otherwise be credited to the price or cost of the Work covered by this Contract or paid in such other manner as the City may direct.

8. Complete performance of any part of the Work not included in the City-issued notice of termination.

9. Take such action as may be necessary, or as the City may direct, for the protection and preservation of the property related to this Contract which is in the possession of Contractor and in which the City has or may acquire an interest.

C. After receipt of a notice of termination, Contractor may submit to the City a termination claim, in the form and with the certification the City prescribes. Contractor shall submit such termination claim promptly, but in no event later than 3 months from the effective date of termination, unless one or more extensions in writing are granted by the City upon written request of Contractor within such 3-month period or an authorized extension period. However, if the City determines that the facts justify such action, it may receive and act upon any such termination Claim at any time after such 3-month period or extension period. If Contractor fails to submit a termination Claim within the time allowed, the City may determine, on the basis of information available to the City, the amount, if any, due to Contractor because of the termination. The City shall then pay to Contractor any amount so determined.

D. Subject to the previous provisions of this Paragraph 14.03, Contractor and the City may agree upon the whole or any part of the amount or amounts to be paid to Contractor because of the total or partial termination of Work. The amount or amounts may include a reasonable allowance for profit on Work done. However, such agreed amount or amounts, exclusive of settlement costs, shall not exceed the total Contract Sum as reduced by the amount of payments otherwise made and as further reduced by the Contract Sum of Work not terminated. The City will undertake to amend the Contract accordingly, and City will pay Contractor the agreed amount. Nothing following, which prescribes the amount to be paid to Contractor in the event of failure of Contractor and the City to agree upon the whole amount to be paid to Contractor because of the termination of Work under this Paragraph 14.03, shall be deemed to limit, restrict, or otherwise determine or affect the amount or amounts that the parties may agree upon to be paid to Contractor pursuant to this subparagraph 14.03D.

E. If Contractor and the City fail to agree in accordance with subparagraph 14.03D on the whole amount City will pay to Contractor because of the termination of Work under Paragraph 14.03, the City shall determine, on the basis of information available to the City,

the amount, if any, due to Contractor by reason of the termination and will pay to Contractor the amounts determined as follows:

1. For all Contract Work performed before effective date of the notice of termination, the total (without duplication of any items) of the following items:
   a. The cost of such Work.
   b. The cost of settling and paying Claims arising out of the termination of Work under subcontracts or orders as previously provided. This cost is exclusive of the amounts paid or payable on account of supplies or materials delivered or services furnished by Contractor before the effective date of the notice of termination. These amounts shall be included in the cost on account of which payment is made for the cost of Work previously provided.
   c. A sum, as profit on the cost of the Work as provided in subparagraph 14.03D, that the City determines to be fair and reasonable. But, if it appears that Contractor would have sustained a loss on the entire Contract if Contractor had completed all the Work, City shall not be obligated to pay Contractor an amount for profit.
2. The reasonable cost of the preservation and protection of property incurred as previously provided.
3. The total sum City will pay to Contractor shall not exceed the total Contract Sum as reduced by:
   a. the amount of payments already made;
   b. the Contract price or value of Work terminated; and
   c. the fair value, as determined by the City, of destroyed, lost, stolen, or damaged Work or materials for which Contractor was responsible.

F. Contractor shall have the right to dispute in a court of competent jurisdiction within the State of California any determination the City makes under subparagraph 14.03E. But, if Contractor has failed to submit a termination Claim within the time provided and has failed to request extension of such time, it shall have waived such right to dispute the City's determination. In any case where the City has determined the amount owed, the City shall pay to Contractor the following:

1. If there is no right to dispute hereunder or if a right to dispute has not been timely exercised, the amount so determined by the City; or
2. If a proceeding is initiated in a court of competent jurisdiction within the State of California, the amount finally determined in said proceeding.

G. In arriving at the amount due to Contractor under this clause, the City shall deduct:

1. All unliquidated advances or other payments on account theretofore made to Contractor, applicable to the terminated portion of the Contract;
2. Any Claim that the City may have against Contractor in connection with the Contract; and

3. The agreed price for, or the proceeds of sale of, any materials, supplies, or other things kept by Contractor or sold, under the provisions of this Paragraph 14.03, and not otherwise recovered by or credited to the City.

H. Contractor understands and agrees that the foregoing termination of Contract for convenience provisions shall be interpreted and enforced pursuant to cases interpreting and enforcing similar provisions in federal procurement contracts.

ARTICLE 15 - MISCELLANEOUS PROVISIONS

15.01 GOVERNING LAW AND VENUE

A. The Contract Documents shall be interpreted in accordance with the laws of the State of California and the provisions of the City's Charter and Administrative Code, including but not limited to Chapter 6 of the Administrative Code, which is incorporated by this reference as if set forth herein in full.

B. All litigation relative to the formation, interpretation, and performance of the Contract Documents will be decided by a court of competent jurisdiction within the State of California.

15.02 RIGHTS AND REMEDIES

A. All of City's rights and remedies under the Contract Documents will be cumulative and in addition to and not in limitation of all other rights and remedies of City under the Contract Documents or otherwise available at law or in equity.

B. No action or failure to act by the City or the City Representative will constitute a waiver of a right afforded them under the Contract Documents, nor will such action or failure to act constitute approval of or acquiescence in a condition or breach thereunder, except as may be specifically agreed in writing. No waiver by City or the City Representative of any condition, breach, or default will constitute a waiver of any other condition, breach, or default; nor will any such waiver constitute a continuing waiver.

15.03 COMPLETE AGREEMENT

The Contract Documents constitute the full and complete understanding of the parties and supersede any previous agreements or understandings, oral or written, with respect to the subject matter hereof. The Contract Documents may be modified or amended only as specified in Paragraph 1.04 of these General Conditions.

15.04 SEVERABILITY OF PROVISIONS

Should the application of any provision of this Agreement to any particular facts or circumstances be found by a court of competent jurisdiction to be invalid or unenforceable, then (i) the validity of other provisions of this Agreement shall not be affected or impaired thereby, and (ii) such provision shall be enforced to the maximum extent possible so as to effect the intent of the parties and shall be reformed without further action by the parties to the extent necessary to make such provision valid and enforceable.

END OF SECTION

SECTION 00 73 00

SUPPLEMENTARY CONDITIONS

1.01 SUMMARY

A. This Section includes supplements that amend, delete, or modify provisions of Section 00 72 00, the General Conditions of the City and County of San Francisco, as required for the Work of this Contract.

B. All provisions that are not so modified shall remain in full force and effect.

1.02 ARTICLE 1

A. Amend the definition of Final Completion in subparagraph 1.01A.44 by adding the following new sentences to the end of the existing definition:

"Final Completion shall incorporate the following project specific requirements:

1. ***List any additional requirements for Final Completion here.***"

B. Amend the definition of Substantial Completion in subparagraph 1.01A.87 by adding the following new sentences to the end of the existing definition:

"Substantial Completion shall incorporate the following project specific requirements:

1. ***List any additional requirements for Substantial Completion here.***"

1.03 ARTICLE 2

A. Amend Paragraph 2.02 with the following a new subparagraph:

"F. City will furnish two Specifications, two reduced-size sets of Drawings (e.g. on 11"x17" paper), and two sets of full-size Drawings at no cost. Contractor shall pay the reproduction costs of any additional sets required."

1.04 ARTICLE 3

A. Amend subparagraph 3.07B with the following new subparagraph(s):

"3. Permits to be secured and paid for by Contractor that may be required to perform the Work include, but are not limited to those shown in Section 00 73 00/APB (if applicable)."

"4. The City has obtained the permit(s) or agreement(s) listed in Appendix A to Section 00 73 00. The requirements, conditions and restrictions set forth in said permit(s) or agreement(s) that apply to construction of the Project are hereby incorporated as Contract Documents. Copies of said permit(s) or agreement(s) are appended to these Supplementary Conditions as Appendix A. Contractor shall comply with all such requirements, conditions and restrictions

and shall be responsible for all costs, penalties, and delays resulting from Contractor's failure to comply with such requirements, conditions, or restrictions."

B. Add the following new Paragraph:

"3.23 DESIGN PROFESSIONAL SERVICES

A. In the event that the Contract Documents require that a certain Item be designed by Contractor, Contractor shall, consistent with applicable licensing laws, retain the services of such Design Professional(s) who shall be licensed in the State of California and shall have the necessary expertise and experience required to prepare such design documents to permit Contractor to complete such Item in accordance with the requirements of the Contract Documents. Nothing in the Contract Documents is intended to create a legal or contractual relationship between the City and any Design Professional.

B. Such Design Professional(s) shall be vested with the authority to act on behalf of Contractor in all matters relating to design or supervision of construction of that Item of which he or she is responsible. Contractor's Design Professional(s) may be replaced only with the approval of the City.

C. Contractor shall require its Design Professional(s) to be responsible without limitation for the following:

1. Consult with authorized employees, agents, and representatives of the City relative to the City's requirements for the design and construction of the Project.
2. Review the Contract Documents and existing Available Project Information and studies of the proposed Site and other data furnished to the Design Professional and advise the City whether such data is sufficient for purposes of design, and whether additional data is necessary before the Design Professional can proceed.
3. Provide additional surveys and information related to the Site, which the Design Professional deems necessary for the performance of the Work.
4. Provide design-related services for preparing construction documents necessary for Contractor to construct and interface the Item in complete conformance with the intent and performance requirements of the Contract Documents.
   a. Construction documents shall be submitted to the City for review and acceptance for conformance with the intent and performance requirements of the Contract Documents prior to Contractor initiating permit or construction activities based on such construction documents.
   b. The City's approval or acceptance of construction document submitted by Contractor shall not be interpreted as a release of Contractor from its responsibilities to coordinate the various portions of the design and to provide accurate and complete design documents to fulfill the intent and requirements of the Contract Documents.

5. Provide to the City design data, technical criteria, and assistance necessary for supporting, protecting, and incorporating into the Project the Item designed by the Design Professional.
6. Comply with requirements of codes, regulations, and written interpretation thereof, existing at the time permit application(s) are made with the local authorities having jurisdiction over the Project.
7. Provide Design Professional's professional liability policies and coverages as required in Section 00 73 16.
8. Provide assistance in connection with the start-up, testing, refining, and adjusting of equipment or system designed by the Design Professional for incorporation into the Project.
9. Assist the City in training staff and developing systems and procedures for operation and maintenance and record keeping for equipment or system designed by the Design Professional for incorporation into the Project.

D. Contractor shall be wholly responsible for all engineering and design of such Item regardless of any contribution, input, review, participation, or coordination that the City, its agents, members, employees, and authorized representatives may have provided to Contractor or its Design Professional.

E. Contractor agrees to release the City, its agents, members, employees, and authorized representatives from liability or losses directly or indirectly arising out of, connected with, or resulting from such Items engineered or designed by Contractor or its Design Professional or furnished and installed by Contractor and shall bear the costs of corrective and replacement work necessary to complete the Items in accordance with the requirements of the Contract Documents."

1.05 ARTICLE 5

A. Add the following new Paragraph 5.04:

"5.04 ASSIGNED CONTRACTS BY THE CITY

A. The City will have awarded separate construction contracts for portions of the Work of this Project as provided in Section 01 11 00 – Summary of Work which shall be assigned to Contractor as a condition of the Contract.

B. As of the date of execution of the Agreement hereunder, the subcontractors for said construction contracts assigned to Contractor (referred to herein as "assigned contracts") shall be Subcontractors of Contractor, and all references to the City or Owner in the contract assigned shall mean Contractor.

C. The assignment of a contract shall act to relieve the City or Owner from all further obligations and liability under said assigned contract, and all rights, duties, and obligations of the City or Owner under said assigned contracts shall become the rights, duties, and obligations of Contractor.

D. Contractor shall assume all responsibilities for the assigned contracts.

E. Contractor shall not assign the portions of the Work covered by assigned contracts to other persons or entities."

1.06 ARTICLE 7

A. Revise Paragraph 7.03 in its entirety, including deleting subparagraphs C, D, and E, to read as follows:

"A. For each day of delay that meets one or more of the conditions specified in subparagraph 7.02A.2, and for which Contractor has timely complied with the Notice of Delay requirements specified in subparagraph 7.02D, the Contract Sum will be adjusted by the daily rate set forth in the Agreement Form (Section 00 52 00) and specifically identified as the rate to be paid to Contractor for compensable delays. Said daily rate shall only apply to compensable delays. Said daily rate shall be Contractor's maximum compensation per day of delay, regardless of the actual length of delay (including any entity claiming under or through Contractor). Said daily rate shall constitute payment in full for all compensation, costs, expenses, and damages, whether direct or indirect, arising from or related to delay, disruption, hindrance, and/or interference (including without limitation interruption of schedules, extended, excess or extraordinary field and home office overhead-costs, loss of productivity and/or efficiency, and the impact, ripple, or cumulative effect on other Work), of the Contractor and all subcontractors, suppliers, persons and entities, of any tier, under or claiming through Contractor on the Project. Said daily rate shall <u>not</u> apply to any delays occurring after Substantial Completion or to any concurrent delays as defined in subparagraph 7.02A.3.

B. The provisions of this Paragraph 7.03 and subparagraph 7.02A.2 do not apply to Change Order Work paid under Paragraphs 6.06 (Cost of Change Order Work) or 6.08 (Unit Price Work), or to Force Account Work performed under Paragraph 6.07. Contractor's right to recovery of compensation, costs, expenses and damages for delay, disruption, hindrance and interference (including without limitation interruption of schedules, extended, excess or extraordinary field and home office overhead costs, loss of productivity and the impact, ripple or cumulative effect on other Work) that are the result of extras, changes, additions or deletions in the Work shall be limited to the adjustment of the Contract Sum (including without limitation the mark-ups specified) as set forth in Paragraphs 6.06 or 6.08 of these General Conditions. Those Paragraphs include markups to cover field and home office overhead costs. Overhead claims in excess of the markups specified are not allowed for Change Order Work or Force Account Work.

1. The Contract Sum adjustment provisions set forth in Paragraphs 6.06 and 6.08 constitute the sole, exclusive and complete compensation that the City is obligated to pay Contractor for all costs, expenses and damages incurred by Contractor and its Subcontractors and Suppliers of all tiers associated with Change Order Work or Force Account Work.

2. If Contractor performs Change Order Work or Force Account Work during a compensable delay period and seeks additional compensation for the compensable delay (i.e., above the markups specified in Paragraph 6.06), then the City will deduct the field and home office overhead costs paid under

Paragraph 6.06 from the compensation owed under subparagraph 7.03A, above, for the same time period, as follows. For field office overhead paid under Paragraph 6.06, the City will deduct 5-1/2% of the value of the added Work (added through Change Order or Force Account). For home office overhead paid under Paragraph 6.06, the City will deduct 5% of the value of added Work."

1.07 ARTICLE 9

A. Delete subparagraph 9.08B in its entirety and replace with the following:

"B. Within 10 working days from receipt of Contractor's written notification, the City will make an inspection to determine whether the Work is Substantially Complete. If the City determines that the Work is not Substantially Complete, the City will provide Contractor with a Punch List / Substantial Completion within 20 working days from Contractor's notice, that lists all Items that shall be corrected or completed before the City considers the Work Substantially Complete."

END OF SECTION

SECTION 00 73 00/APA

APPENDIX A: PERMITS AND AGREEMENTS TO BE OBTAINED BY THE CITY

The City has obtained or will obtain the following permits and agreements for the Work:

1. ***[Manual Insert – List special permits or third party agreements obtained for this project from other agencies by agency name, date and permit number, if any. Include such documents after this page or provide non-expiring weblinks. For weblinks, add the phrase*** ", which are incorporated by reference via the provided weblink(s); Contractor shall download each document before submitting its bid***" at the end of sentence above.]***
2.
3.

The following is a description of permits or agreements that the City anticipates obtaining for the Work after Bid Opening: ***The purpose of this new paragraph is to explain/summarize anticipated agreements that are still in the works to provide Bidders with at least some information so as to minimize substantive changes to the contract. There should be an instruction for PMs/PEs to work with the City Attorney's Office to draft appropriate summaries, etc.***

1. ***[Manual Insert – List special permits or third party agreements obtained for this project from other agencies by agency name, date and permit number, if any.]***
2.
3.

END OF SECTION

SECTION 00 73 00/APB
APPENDIX B: PERMITS AND AGREEMENTS TO BE OBTAINED BY THE CONTRACTOR

1.01 The permits and agreements to be obtained by the Contractor may include, but not be limited to:
PM/PE to review the list of permits and update/change as appropriate for their projects

A. Electrical, plumbing and mechanical permits from the Department of Building Inspection, 49 South Van Ness Avenue, 2nd floor, San Francisco CA 94103, telephone (628) 652-3200.

B. Excavation, street space, side sewer, night noise, and street improvement permits from the San Francisco Department of Public Works, Bureau of Street-Use and Mapping, 49 South Van Ness Avenue, Suite 300, San Francisco, CA 94103, telephone (628) 271-2000. Refer to Section 00 73 73 – Statutory and Other Requirements for excavation code requirements.

C. Special traffic permits from the Department of Parking and Traffic, Engineering Division, 1 South Van Ness Avenue, 7th Floor, San Francisco, telephone (415) 701-4500.

D. Wastewater discharge permit from the San Francisco Public Utilities Commission, Wastewater Enterprise, 3801 3rd Street, Suite 600, San Francisco, telephone (415) 695-7321.

E. Construction Site Runoff Control Permit from the San Francisco Public Utilities Commission, Wastewater Enterprise, Collection System Division, 3801 3rd Street, Suite 600, San Francisco, telephone (415) 695-7339 or San Francisco Permit Center, 49 South Van Ness Avenue, 2nd floor, San Francisco CA 94103.

F. Combustible or flammable liquids permit from the San Francisco Fire Department.

G. Hazardous materials storage permit from the San Francisco Public Health Department, Hazardous Materials Division.

H. Cal/OSHA permits.

I. State, County and City transportation permits for oversized loads.

J. Caltrans (as necessary such as oversized loads and installation of road closure signage).

K. California Department of Forestry and Fire Protection for certification of construction equipment.

L. Bay Area Air Quality Management District (BAAQMD) and the California Air Resources Board (CARB) permits and notifications. ***Note that the City will prepare and negotiate the preliminary Asbestos Dust Mitigation Plan Application and the associated Asbestos Dust Mitigation Plan (DMP); the Contractor will be required to obtain the final permits under BAAQMD.***

M. County well abandonment permits

N. County hazardous materials certificate of registration

O. County soil boring permits

P. County traffic control permits

Q. San Francisco Demolition Permit

R. Permits and service requests from Pacific Gas and Electric Company (PG&E) and other utility owners, and underground and over-head facilities. A PG&E approval is needed for the demolition.

1.02 Contractor is responsible for payment fines, penalties, and all other costs of permit violations within the Contractor's control or responsibility.

1.03 The Contractor shall obtain and pay for (unless otherwise noted) all permits, inspections, and service requests to start and complete Work. Permit costs shall include all associated costs for notifications, walk-through, in-progress inspections, final inspections, oversight, and approvals.

END OF SECTION

SECTION 00 73 02

CONTRACT TIME AND LIQUIDATED DAMAGES

1.01 SUMMARY

A. This Section specifies the limits of Contract Time and amounts of liquidated damages agreed to be assessed should the Work be incomplete after the limits of Contract Time.

1.02 CONTRACT TIME

A. The Work shall be commenced within 5 calendar days from issuance of the Notice to Proceed by the City, prosecuted diligently thereafter, and brought to Substantial Completion within the time limit of 350 consecutive calendar days beginning with and including the official date of Notice to Proceed.

B. Final Completion shall occur no later than 60 consecutive calendar days after the date of Notice of Substantial Completion.

1.03 LIQUIDATED DAMAGES

A. The City and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay the City and County of San Francisco the sum of one thousand dollars ($1,000.00) for each calendar day that transpires with the Work not Substantially Completed after the time limit for achieving Substantial Completion specified in Paragraph 1.02A.

B. In addition, Contractor shall pay the sum of five hundred dollars ($500.00) for each calendar day that transpires with the Project not Finally Completed after the time limit for achieving Final Completion specified in Paragraph 1.02B.

C. Contractor further acknowledges and agrees that these liquidated damages are intended to compensate the City for damages incurred by the City as a result of Contractor's delay. Liquidated damages do not cover any third-party claims, liability, or damages against the City. The City reserves all rights under this Contract to also seek damages against the Contractor for any third-party claim, liability, or damages arising out of, related to, or resulting from Contractor's delay in its performance under this Contract; neither liquidated damages for delay nor third-party damages shall exclude or preclude the recovery of the other.

1.04 RESTRICTIONS ON AVAILABLE WORK

A. The areas listed below may not be available upon Notice to Proceed.

B. The estimated dates upon which the areas are available are as listed. The Contractor's Total Bid Price shall take into account the restricted availability as indicated below:

LOCATION	DESCRIPTION	ESTIMATED AVAILABLE DATE
1. ***[manual inserts (one for each item no.)]***	***[manual inserts (one for each item no.)]***	***[manually inserted calendar dates (one for each item no.)]***
2.		
3.		
4.		

1.05 MISCELLANEOUS LIQUIDATED DAMAGES, PENALTIES, AND FINES

A. Contractor is advised that miscellaneous provisions for potential liquidated damages, penalties and fines are located elsewhere in the Contract, including but not limited to the following:

1. Section 00 45 60 - $50 per day per person forfeiture plus five year disqualification for failure to comply with prevailing wage requirements.

2. Section 00 49 18 provides as an incentive, an equal split in cost saving between Contractor and the City, resulting from a Contractor submitted substitution request approved by the City.

3. Section 00 52 00, Article 4.03A – back wages due plus not less than $50 per calendar day penalty for each worker not paid the highest general prevailing rate of wage; This is repeated in Article 11.01B.4 of Section 00 72 00 General Conditions.

4. Section 00 52 00, Article 4.03B – back wages due plus not less than $50 per calendar day penalty for each worker not compensated in accordance with the prevailing overtime standard and rate; This is repeated in Article 11.01B.5 of Section 00 72 00 (General Conditions).

5. Section 00 49 01 or 00 49 06 – Part V, Article A.2.b.vi – liquidated damages in an amount up to 25% of the total amount of the Contract or subcontract, as applicable, or $1,000, whichever is greatest as determined by the S.F. Contract Monitoring Division, pursuant to 14B.7(H)(2) of the S.F. Administrative Code, 14B

6. Section 00 72 00, Article 11.02A.4 – a daily penalty for each worker consistent with analogous provisions of the California Labor Code, including section 1776, if after 10 days following Contractor's receipt of a written notice of noncompliance with the payroll records certification requirements of California Labor Code section 1776, said noncompliance is still evident.

7. Section 00 73 30 and Administrative Code Section 6.22(g)(7)(F) – amount equal to the journeyman or apprentice prevailing wage rate, as applicable, for

the primary trade used by Contractor or a Subcontractor for each hour by which Contractor or Subcontractor fell short of the local hiring requirement.

8. Section 00 73 73, Article 3.06B (Projects located in San Francisco only) – $1,000 per day fine for each day that Contractor fails to comply with the Dust Control requirements of San Francisco Department of Public Works Order No. 171,378.

9. Section 01 55 26 – Traffic Control (Projects located in San Francisco only) –

Project Engineer shall edit this Section as it applies to the Project. If Section 01 55 26 already has the liquidated damages in a) through k) below, delete this entire Article X Section 01 55 26 – Traffic Control, including a) through k) and leave Article X+1, below, in place.

a. $1,000 per calendar day Contractor fails to comply with the requirements for accessibility and placement of barricades.

b. $200 per calendar day for which the Traffic Control Plans and schedule submitted is delayed beyond the limits specified per Section 01 55 26.

c. $2,000 for each occurrence, in addition to SFPD's citation, the Contractor's work is shut down due to the Contractor commencing work on city streets without having approved Traffic Control Plans on site (emergency work excepted).

d. $500 per hour, or portion thereof, per lane for failure to provide the lane requirements as specified in Section 01 55 26. In addition, if the Contractor's failure to provide the required traffic lanes causes traffic congestion requiring immediate action by the City to provide Parking Control Officers or Police to control the traffic manually, the Contractor shall pay the City these costs. The Officers shall be paid at overtime rate for a minimum of two hours and an additional one hour for travel time.

e. $500 per calendar day for each solar operated Flashing Arrow Sign and/or Changeable Message Sign not furnished and in place in accordance with Section 01 55 26.

f. $200 per calendar day per each traffic sign, traffic device, and/or non-skid steel plate not furnished and in place in accordance with Section 01 55 26.

g. $500 per calendar day per block or portion of a block where there is no continuous construction activity within 24 hours of the posted effective date and time of the temporary "Tow-Away, No Stopping" zone.

h. $500 per parking meter removed by the Contractor without authorization from the City Representative.

i. $5,000 per unauthorized bus zone relocation or any other unauthorized use of temporary bus stop signs by the Contractor.

j. $200 per calendar day the Daily Traffic Inspection Report is not submitted on time as specified per Section 01 55 26.

k. $1,000 per parking meter misplaced or lost by the Contractor..

10. ***Section 01 55 26 – Traffic Control (regardless of Project location) – various liquidated damages as listed in Part 4.***

END OF SECTION

SECTION 00 73 10

DISPUTE RESOLUTION ADVISOR SPECIFICATION

1. GENERAL

1.1 This Section specifies the requirements for selecting and using a Dispute Resolution Advisor ("DRA"). The DRA will be available to assist the parties by facilitating the timely resolution of disputes relating to the performance of Work under this Contract.

1.2 The City and the Contractor shall diligently cooperate with each other and the DRA, and shall perform such acts as may be necessary to obtain prompt and expeditious resolution of any dispute.

1.3 This specification does not supersede or modify provisions of the Contract regarding submitting Notices of Potential Claims, nor does it reduce or change the respective rights and duties of the City and Contractor under the Contract. Rather, the DRA process is available to supplement normal Project communications and Contract procedures in the event that the City and the Contractor cannot resolve a dispute on their own.

1.4 At all times during the course of the DRA process, the Contractor shall continue with the Work as directed by the City, in a diligent manner without delay and in conformance with all applicable provisions of the Contract. Records of the work shall be kept in sufficient detail to enable payment in accordance with the Contract terms and conditions.

1.5 The following categories of disputes are not eligible for referral to or review by the DRA: (i) claims regarding penalties or forfeitures prescribed by statute or regulation which a government agency is specifically authorized to administer, settle, or determine; (ii) claims regarding personal injury, death, reimbursement, or other compensation arising out of or resulting from personal injury or death; (iii) claims regarding stop notices; and (iv) claims/disputes between Contractor and a subcontractor, supplier or other third party that do not involve the City. In addition, disputes regarding Contractor's obligation to defend and indemnify the City against third party claims as specified in the Contract Documents are not eligible for referral to or review by the DRA.

2. DEFINITIONS

2.1 "ADR" shall mean Alternative Dispute Resolution.

2.2 A "dispute" is a claim under the Contract by either the City or the Contractor that is eligible for review by the DRA.

2.3 "Dispute Meeting" shall mean both the formal and informal dispute meeting processes to review a dispute eligible for consideration, which shall result in a recommendation by the DRA.

2.4 The "DRA" shall mean the Dispute Resolution Advisor who is signatory to the DRA Agreement.

2.5 "DRA Agreement" shall be an agreement, appended to this Specification, to which the DRA, the City, and the Contractor are parties, which establishes the DRA for this Project consistent with the requirements of this Specification.

2.6 "DRA Report" shall be a nonbinding, written recommendation issued by the DRA as a result of a formal Dispute Meeting, as described in this Specification.

2.7 "DRB" shall mean Dispute Review Board.

2.8 "Financial ties" or "Financial interest" shall mean any ownership interest, loans, receivables, or payables.

2.9 "Party directly involved" shall mean the City or the Contractor under this Contract.

2.10 "Party indirectly involved" shall mean the construction managers, architects/engineers, subconsultants, counsel, consultants, or subcontractors and suppliers of all tiers on this Project.

3. DRA QUALIFICATIONS AND REQUIREMENTS

3.1 The DRA shall represent that he or she is qualified and able to perform independently and impartially the duties set forth in the DRA Agreement. It is imperative that the DRA show no partiality to either the Contractor or the City, or have any conflict of interest. The DRA shall agree to abide by the Canon of Ethics recommended by the Dispute Resolution Board Foundation ("DRBF").

3.2 The DRA shall have completed training in the DRB process or other ADR process(es) and meet the relevant ADR referral organization's (e.g., DRBF, American Arbitration Association or equivalent) requirements for DRA or DRB panel members.

3.3 The DRA shall have the following professional experience and qualifications:

- Experience with the interpretation and implementation of public work contract documents; and

- Experience in construction matters and/or construction disputes relevant to the scope of work for the Project; and

- Experience in the DRA, DRB, or other ADR process(es).

3.4 The DRA shall meet the following criteria and limitations for membership:

- Direct Employment: Prospective DRAs who are current employees of any of the parties directly or indirectly involved are prohibited from serving as a DRA. Prospective DRAs who are former employees of one of the parties directly involved must disclose that prior employment information and may serve as the DRA only if the other party consents in writing to the prospective DRA's appointment. Prospective DRAs who are former employees of one of the parties indirectly involved must disclose that employment information prior to appointment.

- Consulting Assignments: Individuals who are currently engaged in a consulting capacity by any of the parties directly involved are prohibited from serving as a DRA. Prospective DRAs who are currently engaged as a consultant by one of the parties indirectly involved may serve as the DRA only if the other party consents in writing to the prospective DRA's appointment. Previous employment as a consultant by any party directly or indirectly involved must be disclosed.

- Financial Ties: Individuals with financial ties to any of the parties directly involved are prohibited from serving as a DRA. Prospective DRAs with financial ties to one of the parties indirectly involved may serve as the DRA only if the other party consents in writing to the prospective DRA's appointment. Previous financial ties with any party, directly or indirectly, involved must be disclosed.

- Close Personal or Professional Relationships: Individuals with close personal or professional relationships with a key member of any party directly involved are prohibited from service as DRA. Prospective DRAs with such current relationships with a member of any party indirectly involved in the contract may serve as DRA only if the other party consents in writing to the DRA's appointment. All past personal or professional relationships with a key member of one of the parties directly or indirectly involved must be disclosed.

- Prior Service as a DRA or DRB Member: All past and current service as a DRA or DRB member on projects where any parties directly or indirectly involved were also involved must be disclosed.

- No DRA shall have had substantial prior involvement in the Project, as determined by the City and the Contractor.

- Ongoing Responsibilities: While serving on this Project, the DRA shall not participate in any discussion contemplating the creation of an agreement or making an agreement with any party directly or indirectly involved in the Contract regarding present or future employment or fee-based consulting services, or any other business arrangement after the Contract is completed.

4. SELECTION OF THE DRA

4.1 As soon as practicable after award of the Contract, the City and the Contractor shall meet to discuss the establishment of the DRA, possible nominees, and to exchange lists of the construction managers, designers, architects, engineers, professional service firms, consultants, joint venture partners, subcontractors, and suppliers involved, or likely to be involved in the Project, with a listing of the key personnel of each.

4.2 The City and the Contractor shall each propose 3 potential DRA candidates. Within 15 days of the Notice To Proceed ("NTP"), the City and the Contractor shall exchange their respective nominees' full name and contact information and the following information:

- Resume showing training, experience and qualifications as required by paragraphs 3.2 and 3.3, above. For past DRA and/or DRB participation, if any, list each DRA and/or DRB assignment separately, indicating the name and location of the Project, dates of DRA/DRB service, name of owner, name of contractor, contract value, nominating party (if applicable), names of other DRB members, and the number of disputes heard.

- Disclosure statement describing past, present, and anticipated relationships, including indirect relationships through the nominee's full-time employer, if any, to the Project, and with all parties directly and indirectly involved in the Contract. Disclose close professional or personal relationships with key members of all such parties.

- Disclosure is a continuing obligation of the DRA throughout the term of the Contract.

4.3 The City and Contractor will be allowed 10 days after the exchange of nominee information to review the resumes and disclosure statements for the DRA candidates proposed by the other party for the purposes of accepting or rejecting a nominee's participation as DRA. The City and the Contractor shall then attempt to select one of the 6 nominees to be the DRA. If the City and the Contractor cannot agree on one candidate, the City and the Contractor shall each choose one

of the three candidates nominated by the other, provided that each party is able to choose a nominee who does not have an actual or potential conflict of interest per section 3.4, above. The final selection of the DRA will be decided by a coin toss between the two candidates.

4.4 The City, the Contractor, and the selected DRA shall execute the DRA Agreement within 30 days of NTP. No DRA meeting shall take place until the DRA Agreement has been signed by all parties, unless all parties agree to sign it at the first meeting.

5. GENERAL PROCEDURES

5.1 The DRA shall meet with the parties at the start of the project to establish procedures that will govern the conduct of its business and reporting procedures in conformance with the requirements of the Contract and the terms of the DRA Agreement. The DRA need not adopt hard and fast rules for every aspect of its operation; the entire procedure shall be kept flexible to adapt to changing situations. Any procedures established by the DRA shall be implemented only upon approval by the parties. In addition, during the course of the Project, any modifications to the DRA's existing rules of operation shall be subject to the approval of both the City and Contractor.

5.2 Subsequent DRA meetings shall be held only to hear disputes between the parties.

5.3 While in the presence of the City and the Contractor, the DRA shall refrain from expressing opinions on the merits of statements on matters under dispute or potential dispute.

5.4 The DRA shall not meet with or discuss Contract or Project issues with individual parties. In addition, the DRA shall not undertake independent investigations of any kind pertaining to disputes or potential disputes, except with the knowledge and express permission of both parties.

6. DISPUTE RESOLUTION PROCESS: REFERRAL TO DRA

6.1 Prior good faith negotiation: The City and the Contractor shall enter into good faith negotiations to resolve their differences before referring a dispute to the DRA. The good faith negotiations shall be founded on the principles of full and timely disclosure of each party's position to the other party, including the exchange of pertinent supporting records, analyses, expert reports, and similar documentation, and shall proceed without delay following the inception of the disputed issue.

6.2 Dispute referral: Either party may initiate review of a dispute eligible for consideration by the DRA by written notice of dispute to the DRA, copied concurrently to the other party. The dispute referral shall concisely define the nature and specifics of the dispute that are to be considered by the DRA and the scope of the recommendation requested, and shall indicate whether the referring party prefers that the DRA use a formal or informal Dispute Meeting. The time and process for referral of disputes is as follows:

- Referral by the Contractor: The Contractor may initiate dispute review only as to issues presented to and rejected by the City Representative through the Notice of Potential Claim process set forth in Article 13 of the General Conditions (Section 00 72 00). The City Representative will respond, in writing, to Contractor's Notice of Potential Claim within 30 days of receipt of the Notice. If the City Representative requires additional time to issue a determination, he or she will notify the Contractor of the same in writing, within the initial

30-day period. If Contractor objects to the City Representative's written determination and wishes to refer the matter to the DRA, Contractor shall, within 10 days after receipt of the City Representative's written determination, file a written reply with the City Representative, stating clearly and in detail the basis of the objection. Contractor shall then promptly refer the dispute to the DRA. The Contractor shall make the referral in writing to the DRA, simultaneously copied to the City, within 15 days after receipt of the City Representative's written determination. In the event the City Representative does not issue a written determination within the prescribed period, and Contractor wishes to refer the matter to the DRA, the Contractor must refer a disputed item to the DRA within 45 days of submitting its Notice of Potential Claim.

- Certification by Contractor: Contractor shall include with its dispute referral a certification, executed under penalty of perjury by an individual or officer who is authorized to act on Contractor's behalf, that: (i) Contractor is pursuing the dispute with the City in good faith; (ii) the supporting data currently known to Contractor are accurate and complete to the best of Contractor's knowledge; and (iii) the amount requested by Contractor accurately reflects the Contract adjustment for which the Contractor believes the City is liable based on information currently available to Contractor.

- Although referral to the DRA is not a prerequisite to the submittal of a Contract Claim, if Contractor wishes to refer a matter to the DRA, it must do so within the time limits specified above. Failure of Contractor to timely refer a disputed matter to the DRA shall result in the waiver of Contractor's right to refer the matter to the DRA, and Contractor must timely submit a Contract Claim per the General Conditions (Section 00 72 00) if it wishes to pursue the matter.

- Referral by the City: The City may refer a dispute to the DRA after passage of a reasonable period of time without progress toward a negotiated settlement. Referral by the City is not a condition precedent to affirmative claims asserted by the City against Contractor, including without limitation the assessment of liquidated damages or litigation.

6.3 Scope of the Recommendation Requested: The referring party may seek a recommendation as to entitlement only or as to entitlement and guidelines for compensation.

7. DISPUTE RESOLUTION PROCESS: PROCEDURES FOR DISPUTE MEETINGS

7.1 Upon being notified of the need for a Dispute Meeting, the DRA shall convene to review and consider the dispute. The DRA shall determine the time and location of the dispute meeting with due consideration for the needs and preferences of the parties, while recognizing the importance of a speedy resolution to the dispute. The Dispute Meeting shall be held no later than 25 days after receipt of the written referral, unless otherwise agreed by all parties. In no event shall the DRA consider a dispute without reviewing the Contract requirements and the facts, documentation, and analyses presented by both sides.

- If the written dispute referral indicates that the referring party prefers that the DRA use an informal Dispute Meeting, the DRA and the other party shall indicate their agreement or disagreement with that approach no later than 3 working days after receipt of the written referral. Failure of the other party to indicate its agreement or disagreement within the specified time period shall be construed as agreement to the use of an informal Dispute Meeting. An informal Dispute Meeting shall not be convened unless both parties and the DRA agree that an informal Meeting is appropriate for the dispute at issue.

7.2 As requested by the DRA, both parties shall furnish copies of written evidence or documentation to the DRA and the other party at least 10 days prior to the scheduled Dispute Meeting. The parties shall produce such additional evidence as the DRA may deem necessary to reach an understanding and a determination of the dispute. The party furnishing additional evidence shall furnish copies of such additional evidence to the other party at the same time the evidence is provided to the DRA. The DRA shall not consider evidence not furnished in conformance with the terms specified herein.

- In the event that either party fails to submit information requested by the DRA by the date established by the DRA, the DRA shall, at its discretion, determine whether the Dispute Meeting shall proceed as originally scheduled, or whether additional time shall be provided and a new date established. On the final date and time established for the Dispute Meeting, the DRA shall proceed with the Meeting utilizing the information that has been submitted.

7.3 Location: Normally, the DRA will conduct a Dispute Meeting at the job site. However, any location that would be more convenient and still provide all required facilities and access to necessary documentation is satisfactory.

7.4 Attendance by the parties: The City and the Contractor shall both limit attendance at a Dispute Meeting to individuals directly involved in the dispute and participants in the good faith negotiations that were conducted prior to submittal to the DRA, except as noted below.

- Prior to the date established for the Dispute Meeting, each party shall provide a list of proposed attendees to the DRA and the other party. In the event of any disagreement as to the number of attendees proposed by a party, the DRA shall make the final determination as to the number of attendees that each party may bring to the Meeting.

- Attorneys shall not participate in the Dispute Meeting. Attorneys representing the parties are not permitted to attend Dispute Meetings unless prior written approval is obtained from the other party. If permitted to attend, attorneys shall only observe.

7.5 The DRA, with approval of the parties, may obtain technical services necessary to adequately review the disputes presented, including audit, geotechnical, schedule analysis, and other expert services. The parties' technical staff or an outside expert may supply those services, as appropriate. Prior to arranging for any outside expert, the DRA shall obtain prior approval from the City and the Contractor by providing: (1) a statement explaining why the expert assistance is needed; (2) an estimate of the cost of the expert assistance; (3) a disclosure statement, in accordance with the requirements for DRA selection as provided above; and (4) a confidentiality statement, consistent with the DRA Agreement, executed by the proposed expert. The DRA shall include the cost of the outside expert in his or her regular invoice, and provide a copy of the invoice. Invoices shall be in accordance with the requirements for DRA invoices. The City and the Contractor shall equally bear the cost of the services of the outside expert employed by the DRA.

7.6 The DRA may keep his/her own notes during a Dispute Meeting. There shall be no reporting of the Dispute Meeting proceedings by a shorthand reporter or by electronic means. There shall be no testimony under oath or cross-examination during a Dispute Meeting. Audio or video recordings are not permitted.

7.7 The conduct of the Dispute Meeting shall be established by the DRA according to its operating procedures and generally consistent with the following guidelines:

- The party who referred the dispute to the DRA shall present its position first, followed by the other party.

- Both parties shall be allowed successive rebuttals, assuring a full and adequate opportunity to present their position, and to rebut the opposing party's position until, in the DRA's opinion, all aspects of the dispute have been fully and fairly covered.

- The DRA shall be fully prepared to, and may at any time, ask questions, request clarifications, or ask for additional data and/or job records.

- Either party may request that the DRA direct a question to, or request a clarification from the other party. The DRA shall determine at what point in the proceedings such requests may be made and if they will be granted. In general, the DRA will not allow one party to be questioned directly by the other party.

- In difficult or complex cases, additional meetings may be necessary to facilitate full consideration and understanding of the dispute.

- The DRA, in its sole discretion, may allow introduction of arguments, exhibits, handouts, or documentary evidence that were not provided in advance of the Dispute Meeting and have not been previously submitted to the other party. In such cases, the other party will be granted time to review and prepare a rebuttal to the new material.

- During the Dispute Meeting, the DRA shall not express any opinion concerning the merit of any facet of the case.

7.8 Failure to Appear for a Dispute Meeting: In the event that some or all of the representatives of either party fails to appear at the appointed time of a Dispute Meeting, the DRA shall proceed with the Meeting. The Dispute Meeting shall take place as if all party representatives were in attendance, and the DRA shall consider all evidence brought before it and hear testimony from those party representatives that are present.

7.9 Disputes Involving Subcontractor Potential Claims: For the purposes of this paragraph, a "subcontractor potential claim" shall include any potential claim by a subcontractor (including also any pass through potential claims by a lower tier subcontractor or supplier) against the Contractor that is actionable by the Contractor against the City which arises from the work, services, or materials provided or to be provided in connection with the Contract. If the Contractor determines to pursue a dispute against the City that includes a subcontractor potential claim, the dispute shall be processed and resolved in accordance with the Contract Documents and in conformance with the following:

- Contractor shall identify clearly in submissions pursuant to this Section that portion of the dispute that involves a subcontractor potential claim or potential claims.

- The Contractor shall include, as part of its submissions and referrals required under Article 7.2, above, a certification by the subcontractor's or supplier's officer, partner, or authorized representative with authority to bind the subcontractor and with direct knowledge of the facts underlying the subcontractor potential claim. Contractor shall also submit a certification that the subcontractor potential claim is acknowledged and forwarded by the Contractor. The form of these certifications is available from the City Representative.

- At Dispute Meetings involving one or more subcontractor potential claims, the Contractor shall require that each subcontractor involved in the dispute have present an authorized representative with actual knowledge of the facts underlying the subcontractor potential claim to assist in presenting the subcontractor potential claim and to answer questions raised by the DRA.

- Failure by Contractor to declare a subcontractor potential claim on behalf of its subcontractor (including lower tier subcontractors' and suppliers' pass through potential claims) at the time of submission of Contractor's potential claims, as provided hereunder, shall constitute a release of the City by Contractor of such subcontractor potential claims.

- Contractor shall include in all subcontracts under this Contract that subcontractors and suppliers of any tier (a) agree to submit subcontractor potential claims to the Contractor in a proper form and in sufficient time to allow processing by Contractor in accordance with the requirements of this Section; (b) agree to be bound by the terms of this Section to the extent applicable to subcontractor potential claims; and (c) agree that the existence of a dispute resolution process for disputes involving subcontractor potential claims shall not be deemed to create any claim, right, or cause of action by any subcontractor or supplier against the City.

- This Section shall not apply to, and the DRA shall not have the authority to consider, subcontractor potential claims between the subcontractor(s) or supplier(s) and the Contractor that are not actionable by the Contractor against the City.

8. DISPUTE RESOLUTION PROCESS: SPECIAL PROCEDURES FOR FORMAL DISPUTE MEETINGS

8.1 The DRA may request clarifying information from either party within 5 days after the Dispute Meeting. Requested information shall be submitted to the DRA within 5 days of the DRA's request.

8.2 The DRA shall issue nonbinding recommendations for resolution of a dispute and, if appropriate, recommended guidelines for determining compensation, formalized in a written Report in a format as determined by the DRA and signed by the DRA. The DRA shall issue the DRA Report to both parties within 10 days of the Dispute Meeting, or within 5 days of receiving requested clarification information, whichever is later. Time extensions may be granted at the request of the DRA and with the written concurrence of both parties. The recommendations in the DRA Report shall be based on the pertinent contract provisions, applicable laws and regulations, and the facts and circumstances involved in the dispute eligible for consideration, and shall include an explanation of the DRA's reasoning in reaching the recommendations. The recommendations in the Report must be consistent with the applicable provisions of the Contract between the City and Contractor. The DRA shall reference applicable Contract provisions in its Report. The DRA Report shall stand on its own, without attachments or appendices

8.3 Clarification: Either party may request clarification of a DRA Report within 5 days following receipt of the Report. Requests for clarification shall be submitted in writing simultaneously to the DRA and to the other party. Only one request for clarification per dispute from each party will be allowed. The DRA shall provide written clarification to both parties within 5 days of receipt of a request for clarification.

8.4 Reconsideration: Either party may request reconsideration of a Report within 10 days following receipt of the Report, subject to the rules and restrictions set forth below. As expeditiously as practicable, the DRA shall provide written reconsideration to both parties.

- Requests for reconsideration shall be submitted in writing simultaneously to the DRA and to the other party.
- The DRA will not entertain requests for reconsideration that amount to a renewal of prior argument or additional argument based on facts available at the time of the Dispute Meeting.
- Only one request for reconsideration per dispute from each party will be allowed.

8.5 Acceptance: The City and the Contractor shall submit their written acceptance or rejection of the recommendation(s) contained in a DRA Report concurrently to the other party and to the DRA within 10 days of receipt of the Report or following receipt of responses to requests for clarification or reconsideration.

- Failure by either party to accept or reject within the specified period shall be construed as acceptance of the Report by that party.
- Acceptance by the City of a Report on entitlement only, or on entitlement with guidelines for compensation, does not obligate the City to any particular compensation amount.

8.6 If the parties are able to settle their dispute with the aid of the DRA Report, the City and Contractor shall promptly accept and implement the settlement of the parties. If the parties cannot agree on compensation within 30 days of the acceptance by both parties of the settlement, either party may request the DRA to make a recommendation regarding compensation.

8.7 Audit: If the Contractor seeks a recommendation from the DRA as to additional compensation under the Contract, the City may request a review or audit of the Contractor's project and accounting records. The City must request the review or audit within 10 calendar days of the Contractor's request for the DRA's recommendation as to compensation. The City shall select and shall bear the cost of the individual or firm performing the review or audit. If the City requests a review or audit pursuant to this paragraph, the Contractor shall produce, for examination and reproduction, its project and accounting records, including, but not limited to, bid estimates; budgets; job cost reports; subcontracts; invoices; timesheets and timecards; correspondence; daily reports; project schedules; and financial statements. The Contractor shall produce all requested project and accounting records promptly so that the City receives all records no later than 15 calendar days after service of the City's request for review or audit. The City shall promptly complete its review or audit and shall provide the DRA and the Contractor with the results of the review or audit as directed by the DRA. If the Contractor fails to fully comply with the City's request for review or audit, the DRA shall retract and revoke its Report recommending entitlement, and the Report will not be admissible as evidence in any subsequent proceeding.

9. DISPUTE RESOLUTION PROCESS: SPECIAL PROCEDURES FOR INFORMAL DISPUTE MEETINGS

9.1 If the parties and the DRA agree that an informal meeting is appropriate for the dispute at issue, the DRA shall consider disputes as quickly as possible, taking into consideration the particular circumstances and the time required to prepare detailed documentation. Procedural steps may be omitted as agreed to by both parties, and time periods may be shortened to hasten resolution. In no event shall the DRA consider a dispute without reviewing Contract requirements and the facts, documentation, and analyses presented by both sides.

9.2 The following procedures shall be used after an informal Dispute Meeting:

- After the Dispute Meeting has concluded, the DRA shall deliberate in private on the same day, or as otherwise agreed to by the parties, until the DRA develops recommendations with findings for the parties. The DRA shall then verbally deliver its recommendations to the parties. The DRA will not issue a written report.

- After the DRA presents its recommendations, the parties may ask the DRA for clarifications.

- If the parties are able to settle their dispute with the aid of the DRA's verbal recommendations, the City and Contractor shall promptly accept the recommendations and implement a settlement.

- If the parties are unable to settle their dispute with the aid of the DRA's verbal recommendations, either party may request a formal Dispute Meeting. The DRA will not be bound by its verbal recommendations in the event that a dispute is later heard by the DRA in a formal Dispute Meeting. Any follow-up formal Dispute Meeting shall take place as quickly as possible, taking into account particular circumstances.

10. DISPUTE RESOLUTION PROCESS: SUBSEQUENT PROCEEDINGS

10.1 In the event that the DRA process does not result in a resolution of a dispute, the Contractor must comply with the certified Contract Claim requirements under the Contract, in accordance with Administrative Code Chapter 6 and other applicable laws. For disputes reviewed by the DRA and heard using a formal Dispute Meeting, Contractor must submit any certified Contract Claim for the dispute no later than 15 calendar days after expiration of the acceptance period for the DRA Report. For disputes reviewed by the DRA and heard using an informal Dispute Meeting, with no follow-up formal Dispute Meeting, Contractor must submit any certified Contract Claim for the dispute no later than 15 calendar days after the informal Dispute Meeting. Failure to timely submit a certified Contract Claim will result in Contractor waiving its right to additional compensation and/or time pertaining to the dispute.

10.2 In any subsequent litigation or similar proceeding arising out of a dispute heard by the DRA, the final, written DRA Report and other DRA materials will not admissible as evidence. Neither party may call the DRA as a witness in any subsequent proceeding.

11. COMPENSATION OF THE DRA

11.1 Fees and expenses of the DRA shall be shared equally by the City and the Contractor as set forth in the DRA Agreement.

11.2 The Contractor shall pay the invoices of the DRA after approval by both parties. Upon receipt of satisfactory evidence of payment of the invoices of the DRA by the Contractor, the City will then reimburse the Contractor for 50% of such invoices, with no mark-up. If the Contractor fails or refuses to pay the DRA invoices, the City may pay such invoices and deduct the Contractor's portion from any amount that is due or may become due under the Contract.

12. TERM

12.1 The DRA will be available during the term of the Contract through final acceptance of the Work and, if needed, for a reasonable post-construction period following final acceptance of the Work, but not to exceed the date that the City administratively closes the Contract.

12.2 Notwithstanding the term specified in paragraph 12.1, above, the DRA will terminate and cease to operate in the following circumstances: (i) at any time during the Contract term if City and Contractor mutually agree in writing to terminate the DRA and provide the DRA with 10-days written notice of termination; or (ii) in the event of early termination of the Contract per Article 14 of the General Conditions (Section 00 72 00), unless the City and Contractor mutually agree in writing to extend the DRA for a reasonable post-termination period.

END OF SECTION

SECTION 00 73 10/A

CITY AND COUNTY OF SAN FRANCISCO

DISPUTE RESOLUTION ADVISOR
THREE-PARTY AGREEMENT

THIS AGREEMENT, dated for convenience as of the ____ day of _____, 202__, is between the City and County of San Francisco (the "City"), acting by and through its Public Utilities Commission (the "PUC"), _____ (the "Contractor"), and the following individual: _____ (the "DRA").

Recitals

A. The City, by and through its PUC, has awarded to the Contractor public work Contract No. WW-XYZ (the "Contract") for the construction of a public work known as Sample PUC Contract (the "Project").

B. Included as part of the Contract is Section 00 73 10, implementing a Dispute Resolution Advisor procedure for the Project (the "DRA Specification").

C. The DRA has been selected in conformance with the DRA Specification.

Agreement

NOW THEREFORE, the City, the Contractor, and the DRA hereby agree as follows:

1. **Compliance with Specification.** The DRA agrees to be bound by the terms of the DRA Specification and to perform the required duties strictly as set forth in the DRA Specification. The DRA Specification is incorporated herein by reference as if fully set forth.

2. **Compensation.** The City and the Contractor agree that the DRA shall be compensated for his/her individual services as DRA at a billing rate of $_____ per hour. Compensation shall be paid at the stated billing rate, applied to travel time and reasonable study/consultation time, time spent in Dispute Meetings, and preparation of any written Report as set forth in the DRA Specification. Included in the billable rate shall be routine office expenses, such as secretarial, administrative, report preparation, telephone, computer, and internet connections.

3. **Additional Compensation.** Not included in the billable rate, and considered additional compensation, shall be any travel expenses, outside reproduction costs, and postage costs. Travel expenses must be approved in writing by both the City and the Contractor prior to being incurred. Outside reproduction and postage expenses for DRA Reports and other written communications may be billed at cost.

4. **Invoices.** The DRA shall submit to the Contractor invoices for work completed (a) not more often than once per month; (b) based on the agreed billing rate and conditions and on the number of hours expended, together with direct, non-salary expenses including an itemized listing supported by copies of original bills, invoices, and expense accounts; and (c) accompanied by a description of activities performed daily during the invoice period.

5. **Confidentiality.** The DRA shall not divulge any information acquired during DRA activities without obtaining prior written approval from the City and the Contractor.

6. **Recordkeeping.** The DRA shall maintain cost records pertaining to this Agreement for inspection by the City or the Contractor for a period of three years following the end or termination of this Agreement.

7. **Assignment.** No party to this Agreement shall assign any duty established under this Agreement or the DRA Specification.

8. **Termination.** This Agreement may be terminated by mutual agreement of the City and the Contractor at any time upon not less than 10 days written notice to the DRA or as otherwise set forth in Section 00 73 10. If the DRA resigns, is unable to serve or is terminated, he/she will be replaced within four weeks in the same manner as he/she was originally selected under the DRA Specification. This Agreement shall be amended to indicate the member replacement.

9. **Legal Relations.** The parties to this Agreement expressly acknowledge that the DRA, in the performance of his or her duties under this Agreement and the DRA Specification, is acting in the capacity of an independent agent and not as an employee of the City or the Contractor. The DRA shall not participate in any subsequent dispute proceedings relating to the Contract or the Project. The City and Contractor release the DRA from any and all liability, claims, demands, actions and causes of action arising out of or resulting from the findings and recommendations of the DRA. The release set forth above excludes any and all liability, claims, demands, actions, and causes of action arising out of or resulting from fraud or willful misconduct by the DRA.

10. **Jurisdiction and Venue.** Disputes among the City, the Contractor, and the DRA arising out of this Agreement shall be brought in the California Superior Court, County of San Francisco. The Agreement shall be interpreted in accordance with the laws of the State of California. The DRA hereby consent to the personal jurisdiction of the California Superior Court, County of San Francisco.

CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION

BY: _____
Name:
Title:

[CONTRACTOR]

BY: _____
Name:
Title:

DRA

BY: _____

Approved as to form:
David Chiu
City Attorney

BY: _____
Deputy City Attorney

SECTION 00 73 16

INSURANCE REQUIREMENTS

1.01 SUMMARY

A. This Section includes insurance requirements, which amend Article 10 of the General Conditions.

1.02 CONTRACTOR'S LIABILITY INSURANCE

A. Contractor shall maintain in full force and effect, for the period covered by the Contract, the following liability insurance with the following minimum specified coverages or coverages as required by laws and regulations, whichever is greater:

1. Worker's Compensation in statutory amount, including Employers' Liability coverage with limits not less than $1,000,000.00 for each accident, injury, or illness. The Worker's Compensation policy shall be endorsed with a waiver of subrogation in favor of the City for all work performed by the Contractor, its employees, agents and subcontractors.

2. Commercial General Liability insurance with limits not less than $3,000,000.00 each occurrence combined single limit for bodily injury and property damage, including coverage for Contractual Liability, independent contractors, Explosion, Collapse, and Underground (XCU), Personal Injury, Broadform Property Damage ,products, and completed operations.

3. Commercial Automobile Liability insurance with limits not less than $2,000,000.00 each occurrence combined single limit for bodily injury and property damage, including owned, hired, or non-owned vehicles, as applicable.

B. Approval of Contractor's insurance by the City will not relieve or decrease the liability of Contractor under this Agreement. The City reserves the right to require an increase in insurance coverage in the event the City determines that conditions show cause for an increase.

1.03 ADDITIONAL COVERAGES

A. Builder's Risk Insurance: Contractor shall provide "Special Form" (All Risk) Builder's Risk Insurance on a replacement cost basis as follows:

1. Amount of Coverage: The amount of coverage shall be equal to the full replacement cost on a completed value basis, including periodic increases or decreases in values through change orders. The policy shall provide for no deduction for depreciation. The policy shall provide coverage for "soft costs," such as but not limited to design and engineering fees, code updates, permits, bonds, insurances, and inspection costs caused by an insured peril; the policy may limit the amount for soft costs but such limit shall not be less

than ***5%*** of the coverage amount. ***PROJECT MANAGER: THE "5%" IS THE DEFAULT LIMIT FOR SOFT COSTS. PLEASE CONSULT WITH RISK MANAGEMENT (BENSON HUA) IF YOU WOULD LIKE TO INCREASE OR DECREASE THIS LIMIT TO A SPECIFIC DOLLAR AMOUNT OR PERCENTAGE FOR THE PROJECT, OR NEED ASSISTANCE TO MAKE THAT DETERMINATION.***

2. Additional Premium: If, due to change orders or project term extensions authorized by the City, the Builder's Risk policy becomes subject to additional premium, the City will reimburse Contractor the actual cost of such additional premium, without markup, provided that the Contractor submits to the City proof of payment of such additional premium and either:

   a. A copy of the applicable endorsement to the Builder's Risk policy, if the Builder's Risk Policy is issued on a declared-project basis; or

   b. A copy of Evidence of Property Insurance if the Builder's Risk policy is placed on a reporting form basis.

3. Parties Covered: The Builder's Risk policy shall identify the City and County of San Francisco as loss payee. The policy shall include as additional named insureds the City and County of San Francisco, the Contractor and its subcontractors of every tier. Each insured shall waive all rights of subrogation against each of the other insured to the extent that the loss is covered by the Builder's Risk Insurance.

4. Included Coverage: The Builder's Risk Insurance shall include, but shall not be limited to, the following coverages:

   a. All damages of loss to the Work and to appurtenances, to materials and equipment to be incorporated into the Project while the same are in transit, stored on or off the Project site, to construction plant and temporary structures.

   b. The perils of fire, lightning, windstorm, hail, explosion, riot, riot attending a strike, civil commotion, smoke damage, damage by aircraft or vehicles, vandalism and malicious mischief, theft, collapse, and water damage.

   c. The costs of debris removal, including demolition as may be made reasonably necessary by such covered perils, resulting damage, and any applicable law, ordinance, or regulation with a sub-limit of not less than 25% of the value of the construction contract.

   d. Start up and testing and machinery breakdown including electrical arcing.

   e. Consequential loss (lost revenues and costs of funding or financing when a covered risk causes delay in completing the Work). In the event the City receives coverage specifically for a consequential loss associated with delay to the completion of the Project, such specific amount shall be credited against any liquidated damages for delay for which the Contractor would otherwise be responsible.

f. Terrorism coverage. ***PROJECT MANAGER: UNCOMMON TO INCLUDE UNDER BUILDER'S RISK BUT OPTIONAL AT THE PM'S DISCRETION. IF THERE ARE ANY QUESTIONS, CONFER WITH RISK MANAGEMENT.***

g. Damages due to earthquake and flooding, including but not limited to, losses arising from storm surge, rapidly rising tidal waters and tsunami. ***PROJECT MANAGER: UNCOMMON TO INCLUDE UNDER BUILDER'S RISK BUT OPTIONAL AT THE PM'S DISCRETION. IF THERE ARE ANY QUESTIONS, CONFER WITH RISK MANAGEMENT.***

5. Deductibles: The Builder's Risk Insurance may have a deductible clause not to exceed the amounts below. Contractor shall be responsible for paying any and all deductible costs. The deductible for coverage of All Perils shall not exceed the following:

a. $25,000 for projects valued up to $25,000,000;

b. $50,000 deductible for projects valued in excess of $25,000,000 and up to $75,000,000; and

c. $100,000 deductible for projects valued in excess of $75,000,000.

B. Professional Liability Insurance with limits not less than $1,000,000 for each claim with respect to negligent acts, errors, or omissions in connection with professional services (e.g., performing field engineering, surveying, preparing designs, calculations, drawings, and specifications) to be provided under this Contract. Contractor's professional liability policy shall not have an exclusion for environmental compliance management or construction management professionals. ***PROJECT MANAGER: IF NECESSARY, MANUALLY UPDATE THE "$1M" DEFAULT LIMIT FOR PROFESSIONAL LIABILITY BASED ON RISK MANAGEMENT'S PROVIDED AMOUNT.***

C. Pollution Liability Insurance with limits not less than $1,000,000 each occurrence combined single limit (true occurrence form) for bodily injury, property damage, abatement of hazardous or contaminated materials, including coverage for Non-Owned Disposal Site, and on-site or off-site third party claims. Contractor and its subcontractor(s) performing abatement or disposal of such materials must have insurance coverage and shall do so in accordance with the requirements of the Contract Documents. ***PROJECT MANAGER: IF NECESSARY, MANUALLY UPDATE THE "$1M" DEFAULT LIMIT FOR ENVIRONMENTAL POLLUTION LIABILITY BASED ON RISK MANAGEMENT'S PROVIDED AMOUNT.***

1.04 INSURANCE FOR OTHERS

A. For general liability, environmental pollution liability, and automobile liability insurance, Contractor shall include as additional insured, the City and County of San Francisco, its board members and commissions, and all authorized agents and representatives, and members, directors, officers, trustees, agents and employees of

any of them. Other parties to be protected by Contractor's liability insurance shall be as follows:

1. City's consultants / City's subconsultants: N/A

2. Non-City Agencies: N/A

B. General /Auto Liability policies shall:

1. Name as Additional Insured the City and County of San Francisco, its Officers, Agents, and Employees as well as others as required by contract and must include coverage for bodily injury and property damage.

2. Contractor agrees to waive subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss. Contractor agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation.

1.05 FORMS OF POLICIES AND OTHER INSURANCE REQUIREMENTS

A. Before commencement of the Work of this Contract, certificates of insurance and policy endorsements in form and with insurers acceptable to the City, evidencing all required insurance and with proper endorsements from Contractor's insurance carrier identifying as additional insureds the parties indicated under Article "Insurance for Others" above, shall be furnished to the City, with complete copies of policies to be furnished to the City promptly upon request. Contractor will be allowed a maximum of 5 working days, after the date on which the Contract is awarded, in which to deliver appropriate bond and insurance certificates and endorsements.

B. Approval of the insurance by the City shall not relieve or decrease the extent to which Contractor or subcontractor of any tier may be held responsible for payment of any and all damages resulting from its operations. Contractor shall be responsible for all losses not covered by the policy, excluding damage caused by earthquake and flood consistent with section 7105 of the California Public Contract Code in excess of 5% of the Contract Sum, including the deductibles. All policies of insurance and certificates shall be satisfactory to the City.

C. The Contractor and its subcontractors shall comply with the provisions of California Labor Code section 3700. Prior to commencing the performance of work, the Contractor and all of its subcontractors shall submit to the awarding department a certificate of insurance against liability for workers compensation or proof of self-insurance in accordance with the provisions of the California Labor Code.

D. Liability insurance, with an allowable exception for professional liability insurance, shall be on an occurrence basis, and said insurance shall provide that the coverage afforded thereby shall be primary coverage (and non-contributory to any other existing valid and collectable insurance) to the full limit of liability stated in the declaration, and such insurance shall apply separately to each insured against whom claim is made or suit is brought, but the inclusion of more than one insured shall not operate to increase the insurer's limits of liability.

E. Except for professional liability insurance, should any of the required insurance be provided under a form of coverage that includes an annual general aggregate limit or provides that claims investigation or legal defense costs be included in such annual general aggregate limit, such general annual aggregate limit shall be two times the occurrence limits stipulated. City reserves the right to increase any insurance requirement as needed and as appropriate.

F. Should any of the required insurance be provided under a claims-made form, Contractor shall maintain such coverage continuously throughout the term of this Contract, and without lapse, for a period 5 years beyond the Contract Final Completion date, to the effect that, should occurrences during the Contract term give rise to claims made after expiration of the Contract, such claims shall be covered by such claims-made policies.

G. Each such policy shall be endorsed to provide 30 calendar days' advance written notice to the City of reduction or non-renewal of coverages or cancellation of coverages, except for non-payment of premiums for which no fewer than 10 calendar days' advance notice shall be provided to the City, unless otherwise approved by the City. All notices shall be made to:

Manager, SFPUC Contract Administration Bureau
City and County of San Francisco
525 Golden Gate Avenue, 8th Floor
San Francisco, CA 94102.

H. Contractor, upon receipt of any such notice of cancellation, shall file with the City a certificate of insurance of the required new or renewed policy, including applicable policy endorsements, at least 10 calendar days before the effective date of such cancellation, change or expiration, or as soon as practicable before such effective date in the case of non-payment issues. Upon request, Contractor promptly shall furnish the City with a complete copy of the new or renewed policy.

I. If, at any time during the life of this Contract, Contractor fails to maintain any item of the required insurance in full force and effect, all Work of this Contract may, at City's sole option, be discontinued immediately, and all Contract payments due or that become due will be withheld, until notice is received by the City as provided in the immediately preceding Subparagraph "H" that such insurance has been restored to full force and effect and that the premiums therefor have been paid for a period satisfactory to the City.

J. Any failure to maintain any item of the required insurance may, at City's sole option, be sufficient cause for termination for default of this Contract.

1.06 QUALIFICATIONS

A. Insurance companies shall be legally authorized to engage in the business of furnishing insurance in the State of California. All insurance companies shall have a current A.M. Best Rating not less than "A-,VIII" and shall be satisfactory to the City.

END OF SECTION

SECTION 00 73 18.10

PROJECT LABOR AGREEMENT

The San Francisco Public Utilities Commission Water System Improvement Program Project Labor Agreement, dated March 27, 2007, and Sewer System Improvement Program and Auxiliary Water Supply System (AWSS) Pumping Station 2 project PLA Extension Agreement, dated May 10, 2016, are hereby incorporated by reference in the Contract Documents and are available at the following internet address: https://sfpuc.org/PLA

Water System Improvement Program Project Labor Agreement, dated March 27, 2007:
https://sfpuc.org/sites/default/files/construction-and-contracts/PLA_WSIP_PLA_MAR2007.pdf

Sewer System Improvement Program and Auxiliary Water Supply System (AWSS) Pumping Station 2 project PLA Extension Agreement, dated May 10, 2016:
https://sfpuc.org/sites/default/files/construction-and-contracts/PLA_SSIP-AWSS-PLA-ExtensionMAY2016.pdf

END OF SECTION

SECTION 00 73 19

HEALTH AND SAFETY REQUIREMENTS

INTRODUCTION

This Section sets forth general health and safety requirements for the Contract.

Contractor shall be solely and fully responsible for compliance with all laws, rules and regulations applicable to health and safety of persons during the performance of the Work, and shall fully assume the defense of, indemnify, and hold harmless those entities and persons identified in Sections 00 72 00 and 00 73 16. Contractor shall be solely and fully responsible for all construction means, methods, techniques, sequences, and procedures, including all safety precautions and programs taken in connection with the Work, as well as coordinating all portions of the Work. Contractor, not the City, is responsible and liable for the health and safety of Contractor's employees and Subcontractors as set forth in applicable statutes, laws, and regulations. Contractor shall be solely responsible for any and all fines, penalties or damages which result from its failure to so comply.

The health and safety requirements specified in this Section are not all-inclusive. In addition, some of the requirements specified may not apply to the specific Work of this Contract. It is Contractor's sole responsibility to identify and comply with all applicable health and safety requirements for the Work. The City will neither assume administration nor direct control and responsibility for maintaining Contractor's health and safety program.

Nothing contained in this Section shall relieve Contractor, or any Subcontractor or Supplier, from the obligations set forth above and obligations as required by applicable laws, rules, or regulations. If a provision of this Section conflicts with any applicable provision of this Contract or any federal, state, or local safety regulations, the more stringent requirements that maintain a greater level of safety shall apply. Section includes:

1.0 Related Documents
2.0 Submittals
3.0 References
4.0 Definitions
5.0 General Health and Safety Requirements
6.0 Staff Organization
7.0 Controlled Substance Abuse and Alcohol
8.0 Training
9.0 Meetings
10.0 Project Activity Hazard Analysis/Job Hazard Analysis Program
11.0 Site-Specific Contractor Health & Safety Plan (HASP)
12.0 Inspections
13.0 Incident Reporting and Investigation
14.0 Personal Protective Equipment (PPE)
15.0 Emergency Equipment
16.0 Logs, Reports, and Recordkeeping
17.0 Remedial Action

1.0 RELATED DOCUMENTS

Documents related to the health and safety requirements set forth in this Section include, but are not necessarily limited to the following:

A. Contractor Health and Safety Plan (HASP) Template
B. Section 00 72 00 (General Conditions)
C. Construction Management Plan (CSP)
D. Section 00 73 18.10 Project Labor Agreement (PLA)

2.0 SUBMITTALS

This Article summarizes required safety-related Submittals. This Article is not intended to be all-inclusive. In addition, some Submittal requirements specified below may not apply depending on the specific Work under this Contract. Contractor is solely responsible for identifying and submitting to the City and appropriate authorities having jurisdiction all Submittals required by applicable laws, rules, and regulations.

A. Site-Specific Contractor Health and Safety Plan (HASP) – Submitted to the City Representative a minimum of 10 business days prior to planned commencement of Site work activities for the City's review and acceptance. No work may occur onsite until the Contractor has submitted a HASP which conforms with the requirements and is accepted by the City. Note: Contractor's HASP shall include plan for administration of the Substance Abuse Policy in Appendix H of the PLA
B. Resume for the Contractor's proposed Site Safety Representative (SSR)
C. Activity Hazard Analysis (AHA) or Job Hazard Analysis (JHA) shall be completed in conformance with OSHA standards and <u>must</u> be submitted with the HASP for all known activities which may pose known hazards or risks. During the course of the project, the Contractor is to utilize the AHA/JHA template for all activities and tasks that meets the criteria below for submission, describing the job steps, key equipment to be used, hazards associated with each job step, and the controls used to remove or minimize the associated hazards. The Contractor is to submit a AHA/JHA to the City Representative for all activities/tasks with the highest injury or illness rates (as listed by the Department of Labor), all activities/tasks with the potential to cause severe or disabling injuries or illness, (even if there is no history of previous incidents), for all activities/tasks that are new to your operation or have undergone changes in processes and procedures, and for activities/tasks complex enough to require written instructions, for the City's review and acceptance. For other tasks, AHA/JHA shall be submitted if requested and applicable. Project Specific Contractor Hazardous Communications Plan – Submitted to the City Representative as part of the Contractor HASP
D. Air Monitoring Results/Reports – Submitted to the City Representative on a regular basis and no less frequent than weekly unless City and Contractor agree to a different frequency (if applicable)
E. Monthly Field Project Report – Including man-hours, incident/injury and property damage reports – Submitted to the City Representative on a monthly basis within 5 business days of the last working day of the month
F. Heavy Equipment Inspection Forms – Submitted to the City Representative on request (if applicable).

G. Detailed three-week Look-Ahead Schedule addressing specific scheduled activities, the associated hazards and their mitigation shall be addressed in the applicable AHA/JHA, previously submitted. The look ahead schedule shall be reviewed to ensure applicable AHA/JHA are in place for the upcoming work – The schedule shall be submitted to the City Representative on request (if applicable)

H. Incident Investigation Reports – Submitted to the City Representative within 24 hours of the project incident

I. HASP modification requests, and accepted modifications to the appended HASP – Submitted to the City Representative for review and acceptance (if applicable)

J. Documentation for all individuals applicable to Regulatory Medical Surveillance guidelines and HAZWOPER training per Cal/OSHA requirements – Submitted to the City Representative for review prior to beginning any work associated with these requirements (if applicable)

K. Critical Lift Plans – Submitted to the City Representative a minimum of three business days in advance of work to allow for review and acceptance (if applicable)

L. Crane Inspection Certifications – Submitted to the City Representative a minimum of three business days prior to the start of work (if applicable)

M. Crane Operators certification – Submitted to the City Representative on request (if applicable)

N. Applicable employee training, required medical approval, and respiratory protection fit-testing documentation in compliance with Cal/OSHA standards

O. Copies of detailed and documented annual and Quad crane inspections conducted by qualified individuals

P. Written crane inspections to City Representative on a daily basis

Q. A final report submitted within 20 working days following completion of the on-site work and prior to final acceptance by the City. The following minimum information shall be included in the final report:

1. Summary of the overall performance of safety and health (incidents including near misses, unusual events, lessons learned, etc.)
2. Final decontamination documentation including procedures and techniques used to decontaminate equipment, vehicles, and on-site facilities.
3. Complete summary of personnel and/or worksite monitoring, as applicable to the project scope, (excluding security).
4. Complete summary of air monitoring accomplished during the project (if applicable)

R. Arc Flash and Shock Risk Analysis – Submitted to the City 10 business days prior to performing electrical work on equipment/panels 240 volts and above in a single phase system, or any voltage in a three phase or polyphase system. For any and all work on and around energized lines/equipment, Contractor shall also submit the qualifications of the Electricians performing such work to the City Representative upon request. For any system that the Contractor does not believe meets this threshold, the Contractor should submit a justification which includes but is not limited to Hazard Risk Category of the equipment in question, the results of the Shock Risk Assessment, and Arc Flash Assessment

S. Energized Electrical Work Permit – Contractor shall submit an Energized Electrical Work Permit, which is attached to this Section as **Exhibit A**, 72 hours prior to performing energized electrical work. The permit submitted shall cover only the work detailed in the permit. Should the location or work change, a new Energized Electrical Work Permit will be required.

T. Electrical Safety Program – Submitted to the City Representative on request (if applicable)

U. Excavation Plan – For all excavation work of 5 feet or greater. Where a California Dig Permit is required to be held by the Contractor, an excavation plan shall be submitted. The excavation plan shall define work approach, methods and mitigations in place to ensure for safe entry and delineation of open trenches / excavations. For excavations deeper than 20 feet, the plan shall be stamped, dated, and signed by a California-registered Professional Engineer (Civil/Structural) as required by Cal/OSHA.

1. Excavation Plan shall include all requirements of CCR8 § 1541 and Title 1, Division 5, Chapter 3.1, Article 2, §4216.

V. Blasting Plan (including Micro Blasting) – for all blasting work of any kind. All blasting plans to include applicable training records and be supplemented with a JHA prior to performing the work.

1. Blasting Plan for conventional blasting operations shall comply CCR Title 8 §5291 which shall include copies of all required licenses and training records for all workers involved in any way with blasting tasks. Plan shall be submitted a minimum of ten (10) business days prior to planned start of work, for the City's review and acceptance, which includes, but not limited to, the requirements of this Contract
2. For micro-blasting, plan shall include training records demonstrating workers involved in micro-blasting tasks are trained in the use of the micro-blasting system being used on the project. Additionally, the Contractor shall appoint a person who is trained in the micro-blasting system being used on the project, who is experienced in blasting and/or micro-blasting as the Competent Person for the work. The plan shall include a copy of all applicable training records and a resume for the Contractor's appointed Competent Person for the City's review and acceptance. Micro-blasting plan shall be submitted a minimum of five (5) business days prior to the planned start of work, for the City's review and acceptance. Prior to starting, all persons onsite will be fulling informed as to the hazards and precautions to be taken in the form of a tailgate or a formal training, to be provided upon request to the City Representative.

W. Daily Health and Safety inspections performed by the Contractor's Site Safety Representative (SSR) will be submitted to the City Representative in a weekly report.

X. Safety Meeting Attendance sheet ("Toolbox" meetings) – Submitted to the City Representative on request

3.0 REFERENCES

Work performed shall be consistent with the following guidelines and references and in compliance with all applicable regulations and standards, including those listed below. In the case that these requirements are conflicting, the one which offers the greatest level of safety shall be followed.

A. California Occupational Safety and Health Administration (Cal/OSHA) Regulations
   1. CCR Title 8 Standards (All)
   2. CCR Title 8 Tunnel Safety Orders (8400-8568)

B. National Institute for Occupational Safety and Health (NIOSH) Publications

C. U.S. Environmental Protection Agency (USEPA) Publications

D. American Conference of Governmental Industrial Hygienists (ACGIH) Publications

E. NFPA 70E – Standard for Electrical Safety in the Workplace (all, current and applicable sections)
F. ANSI Z359.0 through ANSI Z359.15 – American National Standard Institute Fall Protection (current and applicable sections)
G. ANSI Z133 – American National Standard Institute for Arboricultural Operations (all, current and applicable sections)
H. ANSI Z117.1 – American National Standard Institute Safety Requirements for Entering Confined Spaces (all current and applicable sections)
I. ANSI/ISEA Z358.1 American National Standard For Emergency Eyewash And Shower Equipment (all, current and applicable sections)
J. ANSI Z535 – American National Standard Institute Standards For Safety Sign And Colors (all, current and applicable sections) InterNational Electrical Testing Association – NETA ATS latest Edition: Acceptance Testing Specifications, and/or NETA MTS latest Edition: Maintenance Testing Specifications.
K. National Electrical Code (NEC, all, current and applicable sections)

4.0 DEFINITIONS

A. Activity Hazard Analysis (AHA) / Job Hazard Analysis (JHA) – a form used to identify the task and break it down into steps, identify the hazards associated with each step, and identify the control measures used for each step to protect the worker, environment or public. This form is also commonly referred to as Job Safety Analysis (JSA).
B. Arc Flash – a dangerous condition associated with the possible release of energy caused by an electric arc.
C. Competent Person – one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them
D. Hot-Work – any activity using tools or equipment resulting in the generation of sparks or open flame. This includes, but is not limited to, cutting or burning with torches, welding, grinding, and the use of reciprocating saws
E. Incident – any unplanned or unexpected event that results in personal injury, property damage, or environmental release
F. Near-miss Incident - any unplanned or unexpected event that could have resulted in personal injury, property damage or environmental release, but does not, due to luck, chance, or other circumstances.
G. Project Minimum Personal Protective Equipment (PPE) – ANSI Z87.1 safety glasses/shields; hard hat; work boots or protective footwear; gloves; hearing protection; and high visibility vest
H. Qualified Person – one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated the ability to solve or resolve problems related to the subject matter, the work, or the project.
I. Site Safety Representative – a Contractor's employee(s) who is exclusively assigned to the project based on the contract scope of work, responsible for all aspects of Safety on the project site(s), assigned to the site(s) on a full-time basis for the entire duration of construction activities, who is authorized to correct safety deficiencies,

and implement work practices that protect workers, as well as members of the public that may be in proximity to the work being performed.

J. Work Areas – Refers to the perimeter of the work area for that specific Contractor.

5.0 GENERAL HEALTH AND SAFETY REQUIREMENTS

The list of general health and safety requirements set forth in this Article is not a comprehensive list of all requirements that may apply to Work under this Contract. In addition, some of the specified requirements may not apply to the Work under this Contract, depending on the type and scope of the Work. Contractor is solely responsible for determining the means and methods of complying with all applicable health and safety requirements in accordance with applicable laws, rules, regulations, and standards.

A. Contractor shall implement an effective safety culture, practices, and controls designed to minimize or eliminate hazards to Contractor personnel, City personnel, process, equipment, environment, and the general public.

B. Contractor shall develop and use Activity Hazard Analyses (AHAs) / Job Hazard Analyses (JHAs) process that address all elements of the work in conformance with OSHA's guidance on Job Hazard Analysis.

C. Contractor shall have a written Lockout/Tagout Procedure that complies with CCR Title 8 §3314. The written program shall also be coordinated with and submitted to SFPUC facility personnel when applicable based on scope and location of work.

D. Contractor shall have a written Lockout/Tagout Procedure that complies with CCR Title 8 §2940.13.

E. The Prime Contractor shall be the Controlling Contractor for all confined space operations or work and shall have a written Confined Space Program that complies with CCR Title 8, Subchapter 4 Construction Safety Orders Article 37, Section 1950-1962 and shall submit as part of the Contractor's site-specific HASP for all contracts with confined space work. Contractor shall provide City Representative with documentation of confined space entrant(s), attendant(s), supervisor(s), and rescue training.

1. The following Confined Space requirements shall be incorporated into the Contractor's Confined Space Program and are required for working within all SFPUC jobsites and assets:

   a. Contractor's Project Site Safety Representative shall be present at the worksite from the time that entry into a permitted confined space is initiated until exit from the confined space has been completed for all confined space entries.

   b. Each entrant shall be equipped with at minimum a four-gas meter capable of detecting hydrogen sulfide (H2S), carbon monoxide (CO), oxygen (O2), and Lower Explosive Limit (LEL) gases in accordance with Cal/OSHA atmospheric testing requirements for confined spaces. If other atmospheric hazards are suspected, a monitoring plan should be developed by the Contractor and implemented after acceptance by the City.

   c. Include procedures to coordinate entry operations for all persons entering the confined space.

   d. Contain site specific procedures required to protect employees and any members of the public within 100 feet of the confined spaces entrance(s).

e. Shall include an evaluation of the hazards identified with the confined space(s) that may cause a particular space to be deemed or cause a space to become a Permit-Required Confined Space.
f. Shall include a provision to communicate any immediate hazard posed by the confined space or hazards within the confined space to SFPUC or other City personnel
g. Shall include a debriefing at the conclusion of confined entry operations to report any hazards encountered or created within the confined space.
h. For all permit-required confined space entries, shall also follow the subsequent, additional requirements:
    i. Contractor's Project Site Safety Representative shall be present, within 50 feet from the entrance(s), in direct line of site, in continuous communication with the Attendant(s), and fulfill the role of the Entry Supervisor from the time that entry into a permitted confined space is initiated until exit from the confined space has been completed.
    ii. The Contractor shall continuously monitor the confined space using a four-gas meter equipped with pump module which draws air across the sensor and capable of remote sampling by use of extendable wand, or probe attached to the meter by tubing, into the hazardous atmosphere while the user remains outside the confined spaces.
    iii. Rescue from Confined Spaced:
        1) Each entrant shall remain connected to a retrieval device (if only one Entrant at a time is planned);
        2) Each entrant shall have a self-contained self-rescuer device with a minimum of 10 minutes of air (when allowed by OSHA), or;
        3) Must have a rescue service or rescue trained crew on stand-by to respond to a rescue, considering the hazard(s) identified and capable of fulfilling the Cal/OSHA requirements, as delineated in Subchapter 4. Construction Safety Orders Article 37. Confined Spaces in Construction.
    iv. All rescue personnel, if used or required, shall be on stand-by at all times while work is being performed within the Permit Confined Space, remain within 50 feet of the Confined Space entrance, with line of site, and in direct, continuous communication with the Contractor’s Entry Supervisor(s), and immediately available for rescue, (response time excludes those performing work under the Tunnel Safety Orders). If rescue personnel are unavailable or cannot remain within 50 feet of the Confined Space entrance, in line of site, all permit Confined Space work must cease and all Confined Space Entrants must exit the Confined Space.
    v. If Contractor plans to utilize a Contractor Confined Space rescue crew, service, or emergency service, the Contractor shall submit the following for City Representative’s review and acceptance prior to entry.
        1) Documentation showing who will provide rescue services.
            a) If using an emergency service provider (e.g., fire department personnel, first responder personnel) to perform rescue or rescue standby, the Contractor must submit a copy of a letter of agreement from the named emergency service provider,

stating the emergency service provider will provide confined space rescue on stand-by, for immediate rescue, and understands the hazards of the confined space for the work performed under this Contract.

2) Documentation demonstrating adequate training of rescue personnel if using Contractor or subcontractor personnel to perform rescue.

2. For entry into all Wastewater assets:
   a. The Contractor shall notify the designated Wastewater Operations personnel upon entry and exit of each asset. This includes, but is not limited to, entry onto Wastewater Treatment Plants/Pump stations, outfalls, manholes, transport boxes, cisterns, storm drains, etc.
3. For all work performed within SFPUC Wastewater Treatment Plants and Pump Stations, or other SFPUC Wastewater facilities, no personal vehicles will be allowed onsite.
4. The Contractor, along with the Contractor's SSR, shall meet with the City Representative to receive a Contractor Advisement after NTP and prior to start of work. The purpose of the Contractor Advisement is to provide specific information about potential hazards and to review the SFPUC procedures, specific to the planned confined space work within any of our existing assets and/or facilities.

F. Contractor shall have a written Fall Protection Plan which must require fall protection for all work activities that occur at a height of 6 feet or greater. Fall Protection Program shall be required by the Contract. No work may occur above 6 feet without fall protection/fall arrest system in place. For all projects with a fall exposure of more than 15 feet, the Contractor shall also include a Fall Protection Rescue Plan. All aspects of the plan shall be communicated to all affected employees and subcontractors.

G. Hoisting of personnel on a personnel platform by a crane or derrick is prohibited, except when the erection, use, and dismantling of conventional means of reaching the worksite, such as a personnel hoist, ladder, stairway, aerial lift, elevating work platform or scaffold, would be more hazardous or is not possible because of structural design or worksite conditions. This type of operation must meet the requirements of Cal/OSHA regulatory requirements.

H. Never raise a load over people or occupied buildings. Tag lines must be used to control every load. All materials shall be rigged to prevent unintentional displacement. Hooks with self-closing safety latches shall be used to prevent components from slipping out of the hook. Defective rigging equipment shall be tagged and removed from service. Only qualified and trained persons shall rig materials to be hoisted.

I. Only qualified and trained operators may operate power equipment. Seat belts must be worn if available and/or required. The user manual for such equipment shall be kept with such equipment while in operation on the site at all times.

J. Safe lifting procedures for cranes and hoists must be developed, documented, and provided to the City Representative upon request. Crane and hoist operators and qualified riggers must conduct rigging equipment inspections prior to each use on each shift and as necessary during its use. Defective or damaged equipment must be removed from service.

K. Preventative maintenance must be conducted on cranes, hoists, or other equipment use on the project in accordance with manufacturer's guidance or regulatory requirements.

L. Riding on hooks, headache balls, slings of hoisting equipment, or sideboards/tailboards of equipment is strictly prohibited.

M. Scaffolds shall be built per Cal/OSHA standards.

N. All scaffolds must be inspected by a Qualified Person before use and must be designed for the safe working load. Guardrails and toe-boards shall be used on all scaffolds and secured per Cal/OSHA requirements. Rolling tower scaffolds must be locked while the scaffold is in use.

O. Scaffold platforms that are 6 feet or greater and above any working surface must be equipped with a guardrail system – Top rails (42 inches plus or minus 3 inches), mid rails (midway between the top rail and the scaffold platform) and toe boards – or personal fall arrest systems must be utilized.

P. No scaffold shall be erected, moved, dismantled, or altered except by trained personnel under the authority of the Qualified Person.

Q. The Scaffold Tag System shall be implemented using red, yellow, and green tags.

R. Outriggers and platforms below the working/walking level shall be fully planked.

S. Contractor shall perform a Shock Risk Assessment, in accordance with NFPA 70E – 130.04, and Arc Flash Risk Assessment in accordance with NFPA 70E – 130.5 prior to performing electrical work on any and all equipment operating at 50 volts and higher.

T. Energized lines/equipment shall not be installed, repaired or removed, except by a Qualified Electrician who has successfully completed an NFPA 70E course or an equivalent course. Documentation of training shall be submitted to the City Representative as part of the HASP or HASP amendment, prior to performing the work.

U. Prior to Final Completion and prior to turning over equipment to the City or City personnel, Contractor shall affix all final required Arc Flash labeling in conformance with current NFPA 70E, current NEC (National Electric Code), current ANSI Z535, as required.

V. Electrical equipment shall not be installed, repaired, or removed except by trained Qualified Electricians.

W. All lines of 600v and above to be cut or severed in any way, even when de-energized, shall be tested for the absence of power and cut remotely. For all lines below 600v to be cut or severed in any way, even when de-energized, shall be tested for the absence of power and the City recommends remote cutting, when appropriate.

X. Temporary lighting must be guarded.

Y. All 120-volt, single phase 15 and 20-ampere receptacle outlets on construction sites, which are not part of permanent wiring of the building or structure and are in use by employees, shall have approved Ground Fault Circuit Interruption (GFCI) for personnel protection.

Z. Extension cords must be at least 16-gauge heavy duty 3-wire with a UL approved three prong ground plugs.

AA. Gasoline and similar flammable liquids must be stored only in and approved safety containers and in areas free of bringing hazards.

BB. Open fires are strictly prohibited on the job site.

CC. Every hot-work operation must have a properly trained and equipped Fire Watch with appropriate fire extinguishers for the specific hazard in the work area. The Fire

Watch must remain in the work are for at least 30 minutes after the hot-work activity is completed.

DD. The Contractor shall utilize a hot-work permit system when working in/around a combustible environment.

EE. Defective tools and equipment must be taken out of service and shall be properly repaired before reuse.

FF. Compressed gas cylinders shall remain standing and securely tied off, whether empty or full. Valves shall be closed on all empty cylinders. Protection caps shall remain on cylinders when not in use.

GG. When cylinders are not in use, they must be secured and capped. If cylinders are not used within a 24-hour period, they are considered to be in storage, and must be secured, capped, and separated. Separate oxygen and fuel gas cylinders by a minimum distance of 20 feet or by a noncombustible barrier that is at least 5 feet high, and has a fire-resistance rating of a 1/2 hour.

HH. A motor vehicle engine shall not be left running if the vehicle/equipment is unattended unless it is necessary in the normal operational requirement of the unit. Unattended means that the operator has left the normal control position of the vehicle. The vehicle shall be placed in PARK on the transmission, emergency brake set and at least one rear wheel chocked.

II. All moving equipment must be equipped with back-up alarms.

JJ. Job-made wooden ladders can be utilized on the job site if they meet Cal/OSHA requirements.

KK. Stepladders (A-Frame) must be fully open and cannot be used as straight/extension ladders.

LL. Tie-off all straight and extension ladders to keep them secure. Straight and extension ladders must extend 3 feet beyond the top landing. The base of the ladder shall be set out at least one-fourth of the ladder height measured from bottom to point of bearing.

MM. Contractor is responsible for cleaning up and removing hazardous and non-hazardous waste generated on the job site.

NN. Each Contractor shall be responsible to maintain areas where it is performing work free from waste materials, debris, and rubbish.

OO. All protruding nails in form lumber, boards, etc., must be withdrawn or bent into the wood before the wood is stacked or piled.

PP. Provide a proper collection container and floor protection when using cutting oil, solder flux, hydraulic oil, and other fluids. In the event of a large spill, immediately install acceptable containment barriers and notify the City Representative.

QQ. Follow the safety standards for Tunnel work as specified in Cal/OSHA Title 8, Section 8400-8568 regulations. The Contractor is required to provide the necessary Emergency Rescue Team.

RR. Alcoholic beverages, recreational drugs, and people under the influence of these substances are not permitted on the job site.

SS. Weapons and firearms are strictly prohibited on the job site.

TT. Heavy equipment operators are prohibited from using music radios/headsets, cellular phones, internet access devices, and other similar distracting objects/devices while occupying the cab of the equipment when the heavy equipment is idling or operating on the jobsite.

UU. No cameras or video equipment are permitted on site except as necessary to document the progress of the Work, as may be allowed under the Site Security Guidelines or approved by the City Representative.

VV. Smoking is only allowed in designated project areas based on the City Representative's approval.

WW. Horseplay and fighting are prohibited.

XX. Protect floor openings by providing adequate barricades and secured covers. All covers must be painted with high visibility paint or shall be marked with the word "HOLE" or COVER" to provide warning of the hazard.

YY. All project employees to include trade workers, vendors, and visitors must comply with the project's security and access program as outlined in the Contract Documents.

ZZ. All liquid hazardous materials must be properly contained in accordance with the Contract Documents and environmental regulations.

AAA. Park in designated Contractor-parking areas. The driver of any motor vehicle on job site is responsible for its safe condition and use. The driver is required to have a valid driver's license and the vehicle must have a valid license plate. All job site traffic rules must be obeyed.

6.0 STAFF ORGANIZATION

A. The Contractor shall develop an organizational structure that sets forth lines of authority, responsibility, and communication. The Contractor shall include a description of this organization and responsibilities of each key personnel (see Article 11.0, below)

B. The Contractor shall designate in writing, by name, subject to contract requirements, at least one individual to be the full time Site Safety Representative (SSR). If more than one project site working shift is initiated, the Contractor will have to ensure that provisions are made to have a qualified SSR for all work shifts.

C. A SSR shall possess at a minimum, the following qualifications:
   1. OSHA Training Requirements:
      a. OSHA 30-hour Construction Safety and Health trained, instructed by an OSHA Authorized Trainer, for all projects valued at $100,000,000 or less.
   2. First Aid/CPR trained within the past two (2) years.
   3. Trained (formal, documented training) and experienced in the hazards and complexity of site and contract scope.

D. The SSR shall also have **formal documented safety training** as required by Cal/OSHA or other state regulations, and the Contractor shall include but not limited to the following:
   1. Fall Protection
   2. Material Handling (if part of the scope)
   3. Confined Space (if part of the scope)
   4. OSHA Training:
      a. For projects valued at $100,000,000 or less, OSHA 30 Construction Safety and Health training by an Authorized Trainer
   5. Excavation (if part of the scope, for all excavations of 10 feet or greater or excavation which may generate significant hazards at any depth)
   6. Scaffolding (if used)
   7. Confined Space Entry Supervisor (if part of the project scope)

E. The SSR shall be physically present at the site during all working hours. The SSR shall be available 24 hours a day, 7 days a week by telephone or other approved means.

F. Contractor shall provide at least two (2) individuals on the job site current in CPR/First Aid training. A job site is defined as an area where work is occurring. If work is being performed at job site, a qualified CPR/FA trained person(s) must be present and available to respond immediately. When a project has multiple job sites, spanning large areas, the Contractor is to determine whether the need for more than two qualified CPR/FA responders may be necessary. Where Contractor provides Automatic External Defibrillators (AEDs), at least two individuals must be trained in its use.

G. If applicable to the project scope, the Site Safety Representative (SSR) must be physically present during tree felling operations, from the commencement of tree felling until the work is complete.

H. Contractor must identify and certify Competent Persons as defined by Cal/OSHA for work or tasks requiring this level of qualification or supervision. The personnel identified must be present on the project when work requiring the Competent Person(s) is taking place. The name(s) of the Competent Person(s) will be provided by the Contractor to the City Representative in writing prior to start of such work activities, along with copies of their training as a Competent Person, to an appropriate level for the scope of work being performed.

I. All Contractor employees, City and Project Representatives shall have "Stop Work Authority" – the ability to stop work without any adverse consequences when unsafe conditions are present.

7.0 CONTROLLED SUBSTANCE ABUSE AND ALCOHOL

A. The City, Contractors, and the Unions are committed to protecting the health and safety of individual employees, their co-workers, and the public at large from the hazards caused by the misuse of drugs and alcohol on the job. The safety of the public, as well as the safety of fellow employees, dictates that employees are not permitted to perform their duties while under the influence of drugs or alcohol. Accordingly, the Contractor agrees to comply with the Substance Abuse Policy contained in Appendix H to the PLA titled Substance Abuse Policy. Refer to Section 00 73 18.10.

Contractor agrees to apply the policy contained in Appendix H. of the PLA to all employees covered by the PLA as defined in Article II of the PLA – SCOPE OF AGREEMENT.

Contractor also agrees that those "non-manual employees" excluded from the scope of the PLA in Section 2.7(a) of the PLA will also be subject to the same substance abuse testing procedures described in Appendix H.

B. Substance Abuse Third Party Administrator

Contractor will utilize Substance Abuse Third Party Administrators specified by the City to conduct all required substance abuse testing.

8.0 TRAINING

A. Contractor must comply with all applicable Cal/OSHA training requirements.

B. Contractor Managers, Supervisors, and Site Safety Representatives must attend a Site-Specific Safety Orientation training conducted by the City that will include site-specific hazards and controls.

C. The Contractor shall provide a Project Orientation session that includes site hazards, procedures, and all requirements. (See Article 11.0, below). This Orientation will be provided to all Contractor employees and all employees of Subcontractors working on the project site. This training shall be documented. Records shall be kept on site and available for review by the City Representative.

D. Prior to working on the Site, Contractor's Superintendents and General Foreman(s) must have successfully completed a 30 hour OSHA Construction Safety and Health training from an OSHA Authorized Trainer. The Contractor must submit documentation of such training to City Representative.

E. Crane operators shall meet the Cal/OSHA requirements for certification. Proof of current certification shall be provided to the City Representative prior to commencement of crane activities on the job site.

F. Confined Space Training Requirements:

1. Entrants shall receive Confined Space Entry training that shall establish employee proficiency, which meets the current Cal/OSHA standards, and is intended to instruct employees working within confined spaces. The Contractor shall provide documentation of this training to the City Representative upon request.
2. Employees working as Attendants shall receive Confined Space Entry training, equal or better to that of employees working within the Confined Space. Employees who work as Attendants shall receive additional training that shall establish employee proficiency as an Attendant, which meets the current Cal/OSHA standards. The Contractor shall provide documentation of this training to the City Representative upon request.
3. The Contractor's Site Safety Representative shall receive Confined Space Entry training, equal or better to that of employees working within the Confined Space. The Site Safety Representative shall also receive training that shall establish the SSR's proficiency as the Confined Space Entry Supervisor and which meets the current Cal/OSHA standards. The Contractor shall provide documentation of this training to the City Representative upon request.
4. Confined Space Rescue Personnel who work for the Contractor, a subcontractor, or lower tier contractor shall receive documentable training which meets the current Cal/OSHA standard for both employees who are entrants and specific training for Confined Space Rescue which shall train that employee to perform the assigned rescue duties. An employee designated as Rescue Personnel shall, at minimum, take part in practice Confined Space Rescue once a year by means of simulated rescue operations in which they remove dummies, manikins, or actual persons from the actual permit spaces or from representative permit spaces. Representative permit spaces shall, with respect to opening size, configuration, and accessibility, simulate the types of permit spaces from which rescue is to be performed. The Contractor shall provide documentation of this training and a copy of each such employee's current First Aid/CPR training to the City Representative.

G. CPR/First Aid trained persons assigned to the work coved by this Contract must have received training within the past two (2) years. First-aid/CPR training must be from the U.S. Bureau of Mines, the American Red Cross, or equivalent training that can be verified by documentary evidence, shall be available at the worksite to render first aid. Persons who received First Aid/CPR training solely online will not be accepted as the Contractor's First-aid/CPR persons for the work covered under this Contract.

H. Electrician working on energized equipment/lines must successfully complete an Arc Flash safety training that contains the requirements referenced in Cal/OSHA Electrical Safety Orders, NFPA 70E, and covers the work which will be performed under the Contract scope. Contractor shall submit documentation of such training prior to performing the referenced work to the City Representative.

9.0 MEETINGS

A. The Contractor (at a minimum) shall conduct "toolbox" safety meetings per Cal/OSHA standards. The safety meeting must be documented, including the attendance, subject outline, and submitted to the City Representative.

B. The Contractor's Project Manager, Superintendent(s), and SSR shall attend City Representative meetings as required to review project Immediately Dangerous to Life and Health (IDLH), stop work activities, incidents, and incident investigations.

10.0 PROJECT ACTIVITY HAZARD ANALYSIS/ JOB HAZARD ANALYSIS PROGRAM

A. Contractor shall develop AHA/JHA for job site work activities which may pose a known hazard and is based on their three-week look-ahead project schedule. Contractor AHA/JHA shall be reviewed by the Contractor's SSR prior to submission to the City Representative or implementation.

B. The Contractor will submit the completed AHAs/JHAs to the City Representative prior to conducting work activities. The submission of AHAs/JHAs to the City shall not be construed as approval of the adequacy of the Contractor's SSR, the AHAs/JHAs, the Contractor's HASP, or any safety measures taken in or near the construction site. All AHAs/JHAs must be submitted at least three (3) business days prior to the planned work to ensure the City's Safety trained personnel have sufficient time to review and return any needed comments to the Contractor.

C. Contractor's supervision will monitor workers which includes observing a worker's behaviors and comparing them against the written AHA/JHA.

D. Observations by supervision indicating non-compliance with AHAs/JHAs shall be corrected immediately and documented. The observation program shall be reviewed at the monthly Contractor safety committee meetings conducted by the Contractor's Site Safety Representative.

E. A detailed three-week Look-Ahead Schedule addressing specific scheduled onsite activities, the associated hazards and their mitigation shall be submitted to the City and address such hazards in the applicable AHA/JHA, either previously submitted or submitted as the work nears. The look ahead schedule shall be reviewed to ensure applicable AHA/JHA are in place for the upcoming work – The schedule shall be submitted to the City Representative, in time for weekly project progress meetings or City Representative meetings.

11.0 SITE-SPECIFIC CONTRACTOR HEALTH AND SAFETY PLAN (HASP)

A. Contractor shall be responsible for developing, implementing, enforcing, and submitting a site-specific Contractor HASP consistent with all CCR Title 8, other applicable regulations, applicable standards, and this Contract, depending upon their scope of work. The scope shall be stated within the HASP.

B. The Contractor shall prepare a site-specific Contractor Health and Safety Plan (HASP) and submit to the City for its review and acceptance. Contractor HASP shall establish, in detail, the protocols, means and methods necessary for the recognition, evaluation, and control of all hazards associated with each task performed by the Contractor and lower tier subcontractors. The Contractor HASP shall be site-specific and cover all work to be performed under this Contract.

C. Contractor shall include with the HASP or as separate submittal, an Infectious Disease Preparedness and Response Plan (IDPRP) to protect workers from any and all infectious diseases. IDPRP must provide specific controls, measures, and steps to protect workers from coronavirus, specifically COVID-19; conform with OSHA laws and guidance, Cal/OSHA laws and guidance, all local and state authorities, including San Francisco City and County Orders and guidance, and San Francisco Department of Public Health Orders; and the IDPRP shall be updated should Orders and guidelines change. A copy of the most current Orders and guidelines may be obtained through the City Representative, if requested. It is the responsibility of the Contractor to ensure its IDPRP is up to date and conforms with current health Orders and guidelines.

1. Contractor's IDPRP shall direct workers to have a face mask on hand, whether needed or not, to be prepared if required by the project or facility due to an outbreak or other health and safety related reason.

D. The Contractor HASP must be reviewed, and approved by signature, by the Contractor's Project Manager and the SSR, then submitted to the City Representative as specified in Article 2.0 of this Section, for the City's review and acceptance. Submission to or acceptance of the Contractor HASP by the City, or any review of the HASP by the City, shall not be construed as approval of the adequacy or effectiveness of the Contractor's SSR, the Contractor's HASP or any other safety measures taken in or near the construction site.

E. No work shall be performed onsite until the Contractor has submitted a HASP which meets all current applicable safety/Contract requirements, and has been accepted by the City, in writing.

F. The Contractor HASP shall address site-specific safety and health requirements and procedures based upon site-specific project conditions and scope.

G. Contractor shall develop a HASP that complies with and includes all applicable requirements as set forth in this Section 00 73 19.

H. A Copy of the Site Safety Representative's Department of Labor OSHA 30 or OSHA 500 training card, a copy of the SSR's valid First Aid/CPR training documentation, resume, and all applicable training records shall be submitted with the Health and Safety Plan (HASP).

I. The Contractor's HASP shall describe the emergency and first aid equipment to be provided by each Contractor and utilized for the project.

J. The Contractor's HASP shall include a written Hot-Work Program. The Contractor's written Hot-Work Program shall follow SFPUC Hot-Work guidelines delineated within the Contract Documents, pre-bid conference, and pre-construction conference. A sample Hot-Work Permit shall be included in the Contractor's HASP and made available to the City Representative upon request.

K. An Example project safety inspection form(s) shall be provided in Contractor's HASP and shall include date, work area checked, employees present in the work area, PPE, work equipment being used in each area, safety and health issues, notes, and signature of the Contractor inspecting personnel.

L. The formats for all safety forms and reports shall be developed by the Contractor and examples submitted as part of the Contractor HASP.

M. The Contractor shall include an organizational structure in the HASP that sets forth lines of authority, responsibility, and communication, including a description of this organization and responsibilities of each key personnel.

N. Contractor shall develop Emergency Response and Contingency Planning procedures that will be included in the Contractor HASP to address potential emergencies that may occur during a task, relative to the Contractor's scope of work. The Emergency Response and Contingency Planning procedures shall identify the closest medical facility that provides urgent/emergency services by name, address, and include a map to the identified the best route to that medical facility.

O. Names and qualifications (resumes including education, training, experience, and certifications) of all site safety and health personnel designated to perform work on this project will be provided in the HASP when submitted to the City Representative. Submissions will include the designated Site Safety Representative and other Competent Persons and Qualified Persons to be used on the project in support of job site safety requirements.

P. Contractor shall include the following information in the HASP, as required, if part of the scope:

1. Confined Space Entry Plan
2. Crane Critical Lift Plan
3. Fall Protection and Prevention (FP&P) Plan, which shall include a Fall Protection Rescue Plan if work involves a fall exposure above 15 feet
4. Respiratory Protection Plan
5. Activity Hazard Analysis (AHA) / Job Hazard Analysis (JHA)
6. Written Hazard Communication Plan which conforms to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) for workplace chemicals brought to the site must be established. Contractor shall also maintain a Safety Data Sheet (SDS) for all products/chemicals brought to the project site and make them available to the City Representative, upon request.
7. Emergency Response/Contingency Plan
8. Excavation Plan (if part of the scope, for all excavations of 10 feet or greater or excavation which may generate significant hazards at any depth)
9. Lockout/Tagout Plan (if part of the scope)
10. Arc Flash and Shock Risk Analysis (if meeting the criteria set forth in Art. 2.0R of this section)
11. Lead/Asbestos Program (if part of the scope or encountered)
12. Tree Felling Plan (if part of the scope)
13. Blasting and/or Micro-Blasting Plan (if part of the scope or used)
14. or other applicable work plan for work that may generate hazards

Q. Any changes or modifications to the Contractor's HASP must be signed by the Contractor's Project Manager and SSR and submitted to the City Representative for review. When accepted by the City, the modifications shall be appended to the Contractor HASP. All on-site personnel shall be fully informed of the modifications and required actions.

R. The Contractor's HASP shall describe the Contractor's plan for compliance with the Substance Abuse Policy in Appendix H of the PLA. The Contractor's plan for

compliance with the Substance Abuse Policy shall include but not be limited to the following:

1. Contractor's method for ensuring that all employees required to take a pre-employment substance abuse test on this project are tested.
2. The name and telephone number of the Contractor's Designated Employer Representative for the Substance Abuse Policy.
3. The location(s) Contractor designates as collection site(s) for pre-employment urine tests.
4. The date(s) and location(s) of training to assist Contractor's management representatives in identifying factors which constitute reasonable cause for drug testing, as well as a detailed explanation of the terms and conditions of the drug policy.

12.0 INSPECTIONS

A. Contractor SSR shall perform *daily* inspections of their active field work area(s) covering workplace conditions, physical facility safety, and employee work practices. Any deficiencies and corrective actions shall be documented. The daily inspection shall be documented in the Contractor's Weekly Health and Safety Report submitted to the City Representative.

B. Each piece of heavy equipment shall be inspected upon delivery to the Site, at the beginning of each work shift, and prior to use. Heavy equipment inspection documentation shall be submitted to the City Representative upon request, within one (1) business day if requested.

C. Crane inspection documentation shall be submitted to the City Representative prior to use. The Contractor shall provide current inspection documentation and Certification per OSHA that the crane operator is qualified and trained in the operation of the crane to be used.

D. Cranes shall be visually inspected prior to each shift by the Contractor's competent person. The inspection must include observation for deficiencies during operation. The inspection must be documented in writing and a copy submitted to City Representative if requested, within one (1) business day if requested.

13.0 INCIDENT REPORTING AND INVESTIGATION

A. Contractor employees involved in or witnessing an Incident must immediately report it to the responsible supervisor or foreman. The Contractor must, in turn, immediately notifies the City Representative. This notification shall be by phone initially and then followed-up by an email.

B. Contractor shall invite and allow City Representative's Safety personnel to participate and review all project incident and/or near-miss investigations.

C. Contractor employees involved in or witnessing a Near-Miss Incident must report it to the responsible supervisor or foreman in a reasonable time frame, not to exceed 24 hours. Thereafter, the Contractor must immediately notify the City Representative.

D. No supervisor may decline to accept or relay a report of injury or significant near-miss incident from a subordinate.

E. All incidents and significant Near-Miss Incidents are investigated immediately by the Contractor's SSR or team with training in accident investigation and root cause analysis.

F. No work shall continue in the incident area until the hazard and/or behavior that caused the incident are corrected by the Contractor and accepted by the City.

G. The Contractor must investigate all incidents and submit an initial investigation report to the City Representative using a Contractor Incident Investigation Report within 24 hours of learning about the incident. Corrections of any deficiencies found in the report, as identified by the City, are to be corrected and submitted to City Representative within 48 hours of incident.

1. The Contractor shall provide notice to the City Representative within one (1) business day if the project site, project offices, or other area associated with the project, belonging to the Contractor, City, or others, may have been exposed or affected by COVID-19 or other infectious disease that may propose a public and known hazard. The notice shall contain the following information:

a. The dates on which an employee, or employee of a subcontracted employer, with a confirmed case of COVID-19 tested was on the worksite premises within the infectious period.

b. The general location of the exposures, sufficiently specific enough to provide notice to any potential exposed groups and does not allow identification of the infected employee(s).

c. If required, the date cleaning was affected.

d. Contact information for the SSR's, COVID Manager, or person providing the above report information, should the City have questions.

2. Contractor shall follow requirements of the California Labor Code, §6409.6 for other requirements, including notices to their Employees and others.

H. A final report with Root Cause Analysis and corrective actions report for all injury incident and Near Miss Incidents that could have resulted in serious injury or worse shall be conducted by the Contractor, including but not limited to the Contractor's SSR, and submitted to City Representative within 10 business days.

I. Any Incident, as defined in Article 4.0 of this Section, that is not reported or if the Contractor attempts to conceal an Incident from the City, alter the scene of an Incident prior to City inspection, fail to preserve involved PPE, fail to provide witness statements with its Incident Investigation Report, and/or exclude SFPUC Safety personnel from the incident/incident investigation may result in a Non-Compliance Notice and suspension of work until the Contractor provides a corrective action plan the City accepts. Such actions on the part of the Contractor may impact the Contractor's ability to bid on SFPUC Contracts.

14.0 PERSONAL PROTECTIVE EQUIPMENT (PPE)

A. Contractor shall define task specific PPE requirements for all personnel in compliance with applicable laws, rules, regulations, and standards.

B. PPE shall be worn at all times on the Site, including travel within the Site when starting or ending shifts. Minimum requirements include:

1. Hard hats are required at all times in the work area areas.

2. Task appropriate eye and face protection that complies with ANSI Z87 shall be worn at all times. Safety glasses with side shields are required as minimum.

3. Sensible and safe work clothing/safety shoes must be worn. No canvas/leather sneakers or sandals will be worn at any time while at the job site, within the project area.
4. Task appropriate hearing protection shall be worn in work areas where levels exceed established standards.
5. Suitable gloves must be worn to protect the hands from injury as appropriate for the task.
6. High visibility warning vests or other suitable garments marked with or made of reflection or high-visibility material, or better, must be worn at all times on the project.

C. The Contractor's SSR shall establish the specific and appropriate levels of protection for each work task and include within their AHA/JHA.

D. For electrical work, Personal Protective Equipment (PPE) and other Protective Equipment shall also conform with all NFPA 70E guideline (NFPA 70E 130 (G)) provides guideline based on calculating an incident energy analysis method, based on the Hazard Risk Category for the equipment they have assessed as the tables 130.7(C)(14), 130.7(C)(15)(a), and 130.7(C)(15)(c), as applicable).

E. The Contractor shall have a Respiratory Protection Program in compliance with Cal/OSHA requirements. The Contractor shall also provide the following to the City Representative prior to beginning work utilizing or requiring respiratory protection:
1. Copies of the Respiratory Program
2. Respirator training records
3. Fit-testing and medical approval documentation
4. Annual documentation for training, fit testing, and medical evaluations

F. All respiratory equipment will be provided to the employees by the Contractor, inspected, as required, and maintained per Cal/OSHA regulations.

G. Where “Hot-Work” is involved, a Hot-Work permit must be submitted to the City Representative prior to work. Protective clothing that provides thermal protection shall be required.

H. Safety harnesses must be worn/used per manufacturer’s, OSHA, and ANSI Z359 requirements, at all times when used and are required as follows:
a. Within manlifts, scissor-lifts, and equipment baskets designed to lift workers.

I. Workers must wear a safety harness with their safety lanyard secured to a separate lifeline while working from swing scaffolds, boatswain’s chairs, or other suspended work platforms where a fall hazard is present.

J. Lifelines installed by Contractor must be designed by a Fall Protection Engineer trained to design to the ANSI Z359 standard. Such a lifeline must be installed under the supervision of the Contractor’s Fall Protection Engineer or Fall Protection Qualified Person. Qualifications of the Contractor’s Fall Protection Engineer and/or Fall Protection Qualified Person, who is trained to the ANSI Z359 standard, with documented training records demonstrating the person is trained to the ANSI Z359 standard, shall be submitted to the City Representative along with the design of such a lifeline, including but not limited to stamped calculations which delineate the Initial Sag, design Pretension (lbs.), Maximum Pretension (lbs.), Cusp Sag, total cable length, proposed harnesses to be used, lanyard with Person Energy Absorber length as well as force required to deploy, total number of workers calculations are for, total force during a fall on the worker for the designed system, and total Free Fall length for the designed system. Also to be included with the afore mention are the anchor calculations, which shall be submitted for the City’s review and acceptance. Note:

Vertical lifelines may not require some of the listed items above, provided they conform with the current ANSI Z359 standards for vertical lifelines.

K. Existing Lifelines and anchors, or other rigid, rail type lifelines may not be used unless the Contractor, City, owner of the asset, or other person can confirm required inspections of the lifeline and/or anchors have occurred, as required, as well as provide the documented of said inspections, or have a Fall Protection Engineer, trained to design to the ANSI Z359 standard, confirm in writing the lifeline and/or anchors are capable of performing to the design criteria.

L. Task appropriate personal protective equipment must be worn for welding, brazing, and burning. Welding screens must be used when welding operations have the ability to expose other employees or the general public.

15.0 EMERGENCY EQUIPMENT

A. The Contractor shall provide the required emergency and first aid equipment to be utilized for the project. The following items, at a minimum, shall be maintained on-site and available for immediate use:

1. First aid equipment and supplies approved by a physician, including first aid kits and eyewash station.
   a. Eyewash stations shall be inspected in accordance with ANSI/ISEA Z358.1.
2. Spill control materials and equipment, including multi-purpose absorbent materials, poly bags, brooms and shovels and drums.
3. Fire extinguishers with a minimum rating of 2A-10B:C or better, as required by Cal/OSHA standards for scope of work and as allowed by the current NFPA 10 standard.
4. Emergency rescue equipment (if applicable), including SCBA or self-rescue escape pack (with a minimum of 10 minutes of air and as allowed by OSHA), and tripod/extraction equipment for confined space rescue or tunnel rescue; backboard/basket for transport of injured personnel, air horns/bull horns for emergency signaling and communications.
5. All site Contractor safety personnel, project managers, and key line supervisors shall be equipped with two-way radios for emergency communications.
6. All boats and vessels (if applicable) used on the project shall comply with the U.S. Coast Guard regulations and carry all Coast Guard–required safety equipment, including adequate personal flotation devices and signaling devices.

16.0 LOGS, REPORTS AND RECORDKEEPING

A. Contractor shall maintain Project safety audits, equipment safety inspection logs, incident reports, and all reports covering the implementation of Contractor HASP on the project site for review upon request by the City Representative.

B. Contractor shall submit Monthly project safety statistical report to City Representative that includes hours worked by Contractor, OSHA Recordable Incidents, Incident Rates, Lost Work Day Cases, Total Project Lost Work Days, and Days Away from Work Rate, First Aid Cases, and Property Damage Incidents.

C. Contractor shall submit Weekly Safety Inspection Reports to the City Representative which include corrective actions.

D. Contractor shall allow City Representatives to access to all Contractor operations and records. The City's review of Contractor's logs and records documenting safety performance shall not be construed as approval of the adequacy of any safety measures taken in, on or near the construction site, nor shall it relieve the Contractor of its responsibilities of performing and enforcing health and safety inspections/audits, monitoring or any other components of the project safety requirements and site-specific Contractor HASP.

17.0 REMEDIAL ACTION

A. The Contractor shall expect the City Representative to issue a Non-Compliance Notice to ensure that observed immediately dangerous to life and health situation(s) and/or repeated failure to comply with health and safety requirements and/or violations are corrected by the Contractor in a timely manner. The notice would document such behaviors, conditions, and/or work performed that is not in compliance with safety standards and/or Contract requirements. Such a notice, if referencing a serious condition or behavior that could result in a serious injury or worse, may require an immediate action to remedy and correct the non-compliance with a written response from Contractor’s Project Manager within 24 hours of receipt of this notice.

B. If Contractor repeatedly fails to comply with applicable health and safety laws, rules, regulations, and orders, the City reserves the authority to suspend the Contractor’s work until a comprehensive correction plan is submitted to the City, accepted by the City, and subsequently implemented by the Contractor.

C. If Contractor repeatedly fails to comply with applicable health and safety laws, rules, regulations, and orders, the City reserves the authority to have the necessary work performed by others and deduct corresponding costs from Contractor's progress payment(s), suspend progress payments, and terminate the Contract for cause.

D. The Contractor’s non-compliance with applicable health and safety laws, rules, regulations, orders and contract safety requirements shall be considered failure by the Contractor to perform a provision of the Contract, and may be cause for the suspension of the Work and/or the discharge from the Work of an employee, Subcontractor or Supplier as set forth in the General Conditions. The Contractor will be responsible for all costs for stoppage of work and/or replacement of employee(s).

END OF SECTION

San Francisco Water Power Sewer
Services of the San Francisco Public Utilities Commission

EXHIBIT A: ENERGIZED ELECTRICAL WORK PERMIT FOR CONTRACTORS

PART I: TO BE COMPLETED BY THE PERMIT REQUESTER

Contract Number/Task Order Number: _____

1. Description of circuit/equipment: _____
2. Location: _____
3. Scope of work: _____
4. Justification of why the circuit/equipment that cannot be de-energized or why work cannot be deferred until the next scheduled outage/shutdown: _____

Permit Applicant – Electrical Contractor Representative /Title/Company _____ Date _____

General Contractor's Site Safety Representative/ Name and signature _____ Date _____

PART II: TO BE COMPLETED BY THE ELECTRICALLY QUALIFIED PERSON PERFORMING THE WORK:

1. Detailed description of the of the work procedures to be used in performing the above described work: _____
2. Results of the shock risk assessment: _____
3. Results of the arc flash risk assessment:
4. Nominal system voltage: _____
5. Number of phases: _____
6. Maximum Fault clearing time/cycles: _____
7. Arc Flash PPE Category for the proposed work): ☐ 1 ☐ 2 ☐ 3 ☐ 4
8.

Hazards	**Distance**	**Determined By** (Arc Flash Risk Label, Table, Other (Specify)
Arc Flash Boundary		
Limited Approach Boundary		
Restricted Approach Boundary		

Additional Personal Protective Equipment to be used

Eyes	**Extremities**	**Body**
☐ Safety Glasses	☐ Insulated/Rated Gloves	☐ Non-Melting, Non-Flammable Street Clothes (plus cotton under garments*)
☐ Goggles	☐ Leather Gloves	☐ Other - Describe:
☐ Work Shoes/Rubber Boots	☐ Hard Hat	

Hearing	**Ventilation**	**Fall Protection**	
☐ Ear Plugs	☐ Exhaust Fan	☐ Safety Harness	☐ Fixed Anchor Location: _____
☐ Ear Muffs	☐ Blower Fan	☐ Lanyard	☐ Self-Retracting Lifeline (SRL)
☐ Other -	☐ Other -	☐ Portable Anchor Type: _____	

*Please note, this permit is only valid until the specified activities at the specified location are completed.

San Francisco Water Power Sewer
Services of the San Francisco Public Utilities Commission

PART II Continued

If additional hazards (i.e., Confined Space Entry or Hot-Work) are present then additional CSP's and/or Permits are necessary.

9. Means employed to restrict access of unqualified persons from the work area: _____
10. Evidence of completion of a job briefing (please attach if additional room is needed). Please include any job-related hazards.

11. Do you agree the above described work can be done safely? Yes ☐ No (If no, return to applicant) ☐

_____
Permit owner and Electrically Qualified Person:

I certify that all required precautions have been taken, the necessary equipment has been provided for the above work, and that the information contained in this permit truly reflects the work plan which will be used by all who perform work under this permit.

_____
Print Name of Qualified Electrical Worker and Title Sign and date

_____
Print Name of additional Qualified Electrical Worker and Title Sign and date

PART III: APPROVAL(S) TO PERFORM THE WORK WHILE ELECTRICALLY ENERGIZED:

☐ This permit is approved *

☐ This permit is not approved for the following reason(s) (required if not approved): _____

_____

_____
SFPUC Electrical Engineer - Print Name Sign and date with the time

_____
SFPUC Electrical Maintenance Manager (for existing facilities) - Print Name/ Sign and date with the time

_____
SFPUC Electrical Supervisor (for existing facilities) - Print Name Sign and date with the time

*Please note, this permit is only valid until the specified activities at the specified location are completed.

SECTION 00 73 20

EXISTING UTILITY FACILITIES

1.01 SUMMARY

A. This Section includes special requirements for existing utilities and underground facilities owned or controlled by any person or entity, private or governmental, referred to herein as “Utility Operators,” which may be encountered by Contractor performing the Work.

B. Utility facilities in public streets that are within the jurisdiction of the Department of Public Works shall be governed by the applicable provisions of the San Francisco Public Works Code, Sections 906, 907, 908, 909, and 910. The Utility Crossings Specifications is based on agreements with non-governmental agencies for removal, support and relocation of privately-owned utility facilities.

1.02 EXISTING UTILITIES INDICATED

A. The Contract Documents may identify or include utility occupancy drawings or utility reference drawings, hereinafter called "reference drawings," showing the approximate locations and other details, of pipes, conduits, structures and other utility facilities which are based on information and data furnished the City by the Utility Operators.

1. Reference drawings do not form part of the Contract Documents. It is understood that the City makes no representation as to the completeness or accuracy of said reference drawings or other information available to Contractor and assumes no responsibility therefor.

B. With respect to existing utility facilities, the Contractor shall assume the cost and responsibility for the following:

1. Reviewing and checking all such reference drawings or information.

2. Locating all underground facilities indicated in the reference drawings or other information available to Contractor.

3. Coordinating the Work with the Utility Operators and construct the Work to clear existing utility facilities.

4. The safety and protection of all such utility facilities as provided in Article 12 of the General Conditions (Section 00 72 00) and repairing damage thereto which may result from the Work.

5. Removing, adjusting, and relocating existing utility facilities located in, over or around the location of the Work as necessary to allow the prosecution of the Work, when such work to the existing utility facilities is indicated in the Contract Documents.

1.03 EXISTING UTILITIES NOT INDICATED

A. Consistent with the provisions of section 4215 of the California Government Code, the City will assume the responsibility for the timely removal, relocation, or protection of existing main or trunk line utilities located on the site of the Work, if such utilities are not identified in the Contract Documents, reference drawings or other information available to Contractor.

B. Contractor shall notify promptly the City and the Utility Operators in writing, and before further disturbing conditions affected thereby, of such unforeseen or differing utilities it discovers while performing the Work.

C. Contractor shall negotiate with the Utility Operator, who shall have the sole discretion to perform repairs or relocation work or permit Contractor to do such repairs or relocation work at a reasonable price.

D. For Work which physically conflicts with existing non-City owned utilities that were not indicated in the Contract Documents, the Contractor shall seek reimbursement for additional cost incurred from the non-City Utility Operator.

E. For Work which physically conflicts with existing City owned utilities that were not indicated in the Contract Documents, the Contractor will be compensated per Subsection 1.04.

F. Contractor will be granted a non-compensable time extension and shall not be assessed liquidated damages for delay in completion of the Work if the delay was caused by such existing main or trunk line utilities in direct conflict with the Work and not indicated in the Contract Documents, reference drawings or other information available to Contractor.

G. Contractor shall not be entitled to any adjustment in the Contract Sum or Time if the extra work could have been avoided by:

1. reasonable examination, investigation, exploration, test or study of the site and contiguous areas as required by the Contractor to locate all underground utility facilities and coordinate such existing utilities with the work prior to commencing the Work; or

2. reasonable inference from the presence of other visible facilities, such as buildings, meter, utility castings, junction boxes, vaults, and etc., to locate all underground utility facilities and coordinate such existing utilities with the Work prior to commencing the Work.

1.04 GOVERNMENTAL FACILITIES IN THE CITY OF SAN FRANCISCO

A. Contractor shall satisfactorily support, work around, and protect, as approved by the City, all facilities, whether shown on the Drawings or not, which exist within any excavation and which are owned or controlled, and maintained, by a City department or other authority in the exercise of a governmental function, including, but not limited to, traffic control, lighting, police communication and fire alarm systems, and

all conduits, wiring and related appurtenances for such systems; sewers and sewer structures; Water Enterprise facilities; pipes and facilities of the Auxiliary Water Supply System for Fire Protection; the Municipal Railway and Hetch Hetchy Water and Power overhead lines and power feeder systems serving the Municipal Railway; and other Hetch Hetchy Water and Power facilities.

1. Municipal Railway facilities, Hetch Hetchy Water and Power facilities serving the Municipal Railway, and other Hetch Hetchy Water and Power facilities, if encountered, shall be supported in a manner satisfactory to the City.

2. Auxiliary Water Supply for Fire Protection facilities, if encountered, shall be supported by a minimum of one cable with turnbuckle, a strongback, and a beam spanning the trench; however, where a joint falls within the trench area, a cable with turnbuckle shall be placed on each side of the joint. All such support work shall be subject to the approval of the City before commencement thereof. After supports are removed and the pipe is sufficiently supported by partial backfill, but with the joints exposed, the pipe shall be subjected to a hydrostatic field test of 350 psi pressure in accordance with section 908.22 of the DPW Standard Specifications (refer to Division 1 for reference standards) before final backfill is placed. If a joint is visibly wet, Contractor shall repair the joint in accordance with section 910 of the DPW Standard Specifications.

3. If vitrified clay pipe side sewers or culverts are encountered, Contractor may elect, in lieu of supporting such side sewers and culverts, to cut and restore those portions of the side sewers and culverts which obstruct the prosecution of the Work, provided that it complies with the provision of section 301 of the DPW Standard Specifications regarding the handling and disposal of seepage, storm water and sewage.

4. Water Enterprise facilities, if encountered, shall be supported as follows:

    a. Push-on joint pipes: Pipes shall be supported by a minimum of one cable with turnbuckle, a pipe clamp and a beam spanning the trench; however, where a joint falls within a trench area, a cable with turnbuckle and pipe clamp shall be placed on each side of the joint.

    b. Copper tubing and plastic pipes (service pipes 2 inches or smaller in diameter): If the trench is less than 8-foot wide, no support is required. For trenches wider than 8 feet, one support is required for every additional 8 feet or part thereof.

    c. Steel welded pipes: Pipes shall be supported in a manner satisfactory to the General Manager of the Public Utilities Commission of the City and County of San Francisco.

    d. Contractor shall submit support designs for approval and start work only with approved support designs.

5. The adjustment of manhole castings and other castings of governmental facilities, and the paving adjacent thereto, shall be done in accordance with the requirements of section 217 of the DPW Standard Specifications.

B. Supporting, working around, and protecting existing governmental facilities indicated in the Contract Documents, reference drawings or other information available to Contractor shall be considered incidental work and no direct or additional payment will be made therefor.

C. Governmental facilities not shown on the Contract Documents, reference drawings or other information available to Contractor that require removal, adjustment or relocation to avoid direct physical conflict with the facilities to be constructed under the Contract shall:

1. be removed or adjusted by Contractor in accordance with the provisions of the Contract Documents; or

2. in the absence of such provisions, be removed or adjusted by Contractor on a force account basis as set forth in Paragraph 6.07 of General Conditions (Section 00 72 00); or

3. be removed or adjusted by other suitable procedure at the City's expense.

1.05 NON-GOVERNMENTAL FACILITIES IN THE CITY OF SAN FRANCISCO

A. The procedure to be followed with respect to non-governmental utility facilities owned or controlled by any person, company, firm or corporation, in the exercise of a proprietary function is covered by sections 906, 907, 908, 909, and 910 of the San Francisco Public Works Code (part II, chapter X, of the Municipal Code).

B. The method of application of the provisions of these Public Works Code sections is described in the following subparagraphs:

1. If the cost of removing or adjusting a utility facility, (a) materially exceeds the cost of so modifying the Work that it can be done satisfactorily without the removal or adjustment of the facility, or (b) materially exceeds the increase in the cost of Contractor's operations that would be occasioned to it by the uninterrupted presence of the facility if it were not removed or adjusted, then, in either case, the City will, if requested by the Utility Operator, waive the requirement that the facility be removed or adjusted and allow it to remain in place, provided that (1) the Utility Operator obtains the consent of Contractor to such waiver in return for such compensation, if any, by the Utility Operator as may be just and equitable and no expense is occasioned either directly or indirectly to the City by such waiver, (2) the City determines that it is economically and technically feasible to change the Project design without affecting its performance, and (3) the Utility Operator agrees to compensate the City for the expense, if any, of revising the Drawings and Specifications as necessary to accomplish the appropriate modification of the Work. Should a Utility Operator, in satisfying the requirements of the immediately preceding subparagraph, notify Contractor

of its intention to leave the facility in place, Contractor shall, within 10 days, furnish to the Utility Operator a quotation covering the entire cost of supporting, working around or protecting, as necessary, such facility. In the event a Utility Operator and Contractor cannot agree upon the amount of the compensation, if any, to be paid by the Utility Operator to Contractor, then the Director of the San Francisco Public Works, with or without the consent of Contractor, will, if he or she determines that it would be uneconomical and contrary to the public interest to remove or adjust the utility facility, and if the Utility Operator promises in writing to pay to the City the amount of the expense incurred by the City under the Change Order next hereinafter mentioned, waive the requirement that the facility be removed or adjusted and will issue an appropriate Change Order to Contractor in accordance with the provisions of Article 6 of the General Conditions (Section 00 72 00) to modify the Work or to modify its operations, as the case may be, as necessary to accommodate the continued presence of the facility.

2. In lieu of the procedures set forth in subparagraph 1.05B.1, agreements have been executed between various utility companies and agencies, and the City, enabling such companies and agencies to have included in City contracts the work of supporting, working around, and protecting their facilities. Such work will be paid for by the various utility companies and agencies directly to Contractor in conformance with the provisions of the Utility Crossing Specifications (Section 00 73 21). Requirements for performance of this work are also contained in the Utility Crossing Specifications.

C. Pursuant to the provisions of subparagraphs 1.05B.1 and 1.05B.2, Bidders shall not include in their Bids expense on account of the presence, or possible presence, of non-governmental utility facilities, except only that which might be included for forming around manhole frames and other castings with boxes as specified in section 217 of the DPW Standard Specifications.

D. If during the course of the Work an unexpected interference by a non-governmental utility facility is discovered, Contractor shall immediately notify the Utility Operator of the interfering facility so that the required procedure outlined in subparagraph 1.05B.1 or 1.05B.2, as applicable, may be followed in a manner to cause no delay in the Work.

1.06 ABANDONED UTILITY FACILITIES

A. These provisions do not apply to abandoned utility facilities. Any increase in the cost of Contractor's operations occasioned by the presence and/or removal of abandoned facilities shall be at the sole expense of Contractor and no additional payment will be made by the former Utility Operators or by the City, except that removal of abandoned utility facilities, not shown on the Drawings or specified to be removed, shall be removed by Contractor on a force account basis as provided in Paragraph 6.07 of the General Conditions (Section 00 72 00).

1.07 USE OF PAVEMENT BREAKER ADJACENT TO UTILITY FACILITIES LIMITED

A. In accordance with the requirements of section 373 of the Public Works Code, Contractor may use pavement breakers or other labor-saving devices; however, the use of any machine or device that breaks pavement by blows struck by a falling or driven hammer or weight is prohibited within a horizontal distance of 6 feet from any gas, sewer, water or Auxiliary Water Supply System pipe, communications duct or any other utility facility.

1. Such prohibition, however, shall not be construed as barring the use of hand tools or manually operated air tools such as jackhammers.

END OF SECTION

SECTION 00 73 21

UTILITY CROSSINGS SPECIFICATIONS (Effective January 2023)

SECTION U1. SUPPORT, WORK AROUND, AND PROTECT EXISTING UTILITY COMPANY FACILITIES-GENERAL SPECIFICATIONS

I. General

Contractor shall support, work around, and protect the following utility company facilities, as applicable, where shown on the Drawings or where directed, at utility crossings which exist within the excavations and interfere with the prosecution of the work because of their presence:

Pacific Gas and Electric Company (PG&E), Pacific Bell Telephone Company D/B/A AT&T California (AT&T), Comcast Corp. (Comcast), Astound Broadband, LLC dba Wave (Astound), Webpass Telecommunications LLC (Webpass), Zayo Group, LLC (Zayo), Century Link Communications LLC f/k/a Qwest Communications Company LLC (Century), Sonic Telecom, LLC (Sonic), GTE Mobilnet d/b/a Verizon Wireless (Verizon), Mobilitie, LLC (Mobilitie), Crown Castle NG West LLC (Crown Castle), ExteNet Systems (California) LLC (Extenet). MCImetro Access Transmission Services Corp., PAXIO, INC., Electric Lighwave Holdings, Inc. fka Integra Telecom Holdings, Inc. (Electric Lightwave), Mpower Communications Corporation, T-Mobile West LLC (T-Mobile), Level 3 Communications LLC (Level 3), TW Telecom of California l.p, formerly known as Time Warner Telecom of California, L.P (TW Telecom).

This Section covers supporting documentation required from Contractor and direct payment by Utility Company to the Contractor for all costs incurred as a result of the work performed by the Contractor to support, work around and/or protect Utility Facility within the Project Limit.

A “Utility Crossing” is defined as any facility (Utility Main, Duct Structure, or Service) located within the excavation area, where the facility will remain in place and will not be relocated, abandoned in place, or removed.

If provided by the Utility Companies prior to advertisement of this Contract, Utility Contract Drawings showing Utility Crossings will be incorporated into the Contract Drawings. Utility facilities which the Utility Company intends to adjust or abandon thus eliminating the need for Contractor to support, work around, or protect will also be shown. Estimates of the cost of Utility Crossing work will be included with the Drawings.

Within 45 calendar days of notification of the award of the City contract, the Utility Companies listed above , as applicable, will execute a payment agreement with the Contractor and will pay said Contractor directly for the work of supporting, working around, and protecting such facilities, according to the Cost of Fixed Price Schedule, hereinafter set forth. The Utility Company is not required to accept or pay invoices submitted to Utility Company by a subcontractor. Prime contractor will not be allowed to mark up the invoices for the support and work around costs from the Subcontractor.

Work at crossings of other non governmental utility company facilities in public streets shall be in accordance with the provisions of Section 00 73 20, Article 1.5, unless otherwise specified.

Any facility owned by Utility Companies mentioned above, or other non governmental facilities, as applicable, that require relocation to avoid physical conflict with the facilities to be constructed under this Contract will be relocated by the appropriate Utility Company in accordance with the requirements of Section 00 73 20, Article 1.5, or treated as otherwise allowed therein.

Fixed Price Schedule

Utility Crossings where the length of the Facility is not more than 3 times the width of the excavation for excavation widths less than 18 feet, shall be priced pursuant to the Fixed Price Schedules hereinafter set forth, and submitted to the Utility Company for payment.

Excavation width will be the outside diameter or width of the City structure plus 3 feet. The length of a Utility Crossing is the centerline distance, in feet, of the portion of the Facility within the excavation area.

Utility Co. Facility Support, Etc., Work Located in Contract but Utility Contract Drawings Omitted from Contract

In the event that Utility Contract Drawings from PG&E, AT&T, Comcast and other Utility Companies listed above, as applicable, are not included in the Contract but the Estimate and General Location of the Support, Work Around and Protect Work are known and included in the Contract, all such work performed will be paid for by the Utility according to the Cost of Fixed Price Schedule hereinafter set forth.

Abandoned and other facilities which the DPW Standard Specifications provide may be cut or treated by Contractor at its expense are excluded from this coverage.

Utility Co. Facility Support, Etc., Work Overlooked, Unexpected, and Not Shown on Utility Contract Drawings, but Ownership Known

Support, Work Around and Protect Work for those Utility Crossings overlooked, unexpected, and not shown on Utility Contract Drawings and Estimates will be paid for by the Utility Company according to the Cost of Fixed Price Schedule hereinafter set forth plus an additional fifteen (15) percent surcharge for Contractor's profit and overhead.

Abandoned and other facilities which the DPW Standard Specifications provide may be cut or treated by Contractor at its expense are excluded from this coverage.

No Surcharge for Certain Work

Due to urgent and contingency nature of the following contracts and related work, an additional fifteen percent (15%) surcharge does not apply:

- Emergency Contract Work
- As Needed Contracts including As Needed Spot Sewer Repair and Job Order Contracts
- Added Scope (Via Change Order or Addendum)
- Work performed under conditional Bid items

Negotiated Payment

Notwithstanding the Fixed Price Schedules hereninafter set forth, the Utility Company and the Contractor shall directly negotiate the costs for other crossings and encroachments including following:

- “Parallel” Utility Crossings,
- Utility Crossings with lengths more than three times the width of the excavation, and/or
- Where the computed cost of any crossing exceeds $12,748.

If a utility facility is located longitudinally and directly on top of the City trench or multiple utility facilities crossing the City trench are located too close to each other leaving no space in between for the Contractor to excavate and shore the trench, and there is a need to change the construction method to install City facilities, the increased cost shall be shared by various utility agencies and City based on the number and size of each Utility agency or City department facilities.

Duct Structure

Duct structure is one or more ducts, conduits or pipes, of any size, or a combination of such ducts, conduits or pipes, which are grouped together but which may or may not be banded, encased in concrete, or otherwise incorporated into a solid unit.

Nested Utility Facilities

Nested utility facilities are defined as facilities six- inches (6") or less in outside diameter or width and are less than 3 feet clear distance from each other regardless of ownership. In the case of nested facilities, each crossing shall be paid for according to the Cost of Fixed Price Schedule reduced by 33 1/3%.

Abandoned or Inactive/Deactivated Facilities

Abandoned Facilities
Utility Company identifies abandoned facilities as facilities that they have stopped using with the intent of never using again. Utility Company may, but is not required to, specify abandoned facilities on its utility contract drawings. If City Contractor encounters unidentified utility company facility during construction, Contractor shall notify the Utility Company in accordance with paragraph "Unexpected or Unidentified Facilities". The Utility Company Inspector shall visit the site within the time mentioned to confirm that the facility is abandoned. If the Utility Company fails to confirm that facility is abandoned, the contractor will receive full payment per Fixed Price Schedule for support, work around and protect work performed.

Inactive/Deactivated Facilities
Utility Company identifies Inactive/Deactivated facilities as facilities that they have temporarily stopped using with the possible intent of future use. Utility Company will specify on its utility contract drawings Inactive Facilities. The Contractor will perform Utility Company Reimbursed Work around Inactive Facilities unless otherwise instructed by the Utility Company on the Utility Contract Drawings.

Within 48 hours of the receipt of notice pursuant to paragraph "Unexpected or Unidentified Facilities", PG&E will perform necessary investigation and clear Abandoned/Inactive/Deactivated gas Facilities for removal by the Contractor.

Removal of Abandoned Facilities or Inactive Facilities
If necessary to construct City Project, the removal of Abandoned Facilities, and Inactive Facilities that the Company specifies on its Utility Contract Drawings that it intends to abandon will be at the Contractor's sole expense, except for removal of duct banks, and conduits or pipes larger than twelve-inch (12") in outside diameter owned by Utility Companies listed above. Utility Company and the Contractor will negotiate the cost for removal of such Utility Company duct banks, and conduits or pipes larger than twelve-inch (12") in diameter.

Any increase in the cost of the Contractor's operations occasioned by the presence and/or removal of other abandoned subsurface facilities shall be handled in accordance with section 700.09 of the DPW Standard Specifications.

Payment Only for Work Performed by the Contractor

The Utility Company will not pay the Contractor unless actual work to support, work around and/or protect Utility Company's Facilities was performed. No payment shall be due to the Contractor if the Utility Company crews respond and are supporting, working around, and/or protecting their Company's Facilities, such as in an emergency, or if the Contractor does not actually perform any work or undertake any action to support, work around or protect the Utility Company's Facilities.

Third Party Insurance

The Contractor shall provide third party insurance naming the affected Utility Company or Utility Companies in addition to the City as an insured against claims for property damage and personal liability arising directly or indirectly from Utility work performed by the Contractor.

II. Contract Activities

The Contractor Measurement

The Contractor shall measure the outside diameter or width of Utility Crossings to the nearest inch (outside diameter **excluding** any fittings, bells, or gate valves) and length of the Utility Crossings to the nearest foot to determine the cost of each Utility Crossing according to the Fixed Price Schedule hereinafter set forth.

Utility Company's Right of Confirmation

The Utility Company shall have the right to confirm measurements with the Contractor but all disagreements shall be resolved without delay to the City Project.

Variations and Cost Adjustments

The Contractor shall notify the Utility Company immediately of any variation of Utility Crossings from the Utility Contract Drawings and/or estimate that require cost adjustment and such cost adjustments shall be settled within no more than two business days without delay to the City Project. Contractor shall also notify the City Representative immediately of any such variations, and any disagreement between Contractor and the Utility Companies regarding Utility Crossings will be decided prior to backfilling by the Director of Public Works or his or her designated City representative. The decision of the Director of Public Works will be final. The Contractor's only recourse is to file a claim.

Verification and the Contractor Itemization

Contractor shall keep an itemized record of the Utility Crossing work done, noting any variations from the Utility Contract Drawings and Estimates. The itemized record shall be maintained and copies submitted monthly to Company and the City as the City Contract work progresses, or as otherwise agreed by Company and City Contractor.

Supporting Documentation for City Projects other than Spot Sewer Repair Contracts

The Contractor shall, at a minimum, submit the following supporting documentation with each invoice submitted to the Utility Company for payment:

- Utility Facility Crossing Support and Work Around Summary and "Drawing for Support and Work Around Invoice for Utility Facilities" identifying Company reimbursed work by type of facility, and shall include following:
  - Identification of all Utility Crossings by alpha-numerical numbering system (e.g., E1, E2, G1, G2);
  - Location and size of all Utility Crossings
  - Length of all Utility Crossings
- Photos of following Utility Crossings:
  - Utility Crossings where the size of the Facility varies from that shown on Utility Contract drawings or estimates; any change of measurement requires one photo per block per size variation.
  - Utility Crossings not shown on Company's Utility Contract Drawings or estimates.
  - Parallel Utility Crossings showing measurements and potential facilities support
  - Utility Crossings six-fee (6') or longer unless:
    - Shown on Utility Contract Drawings and/or estimates and no variance.
    - Facility is a lateral that is crossing the City main facility trench having 6 feet or greater trench width and crossing length does not exceed the trench width.

Supporting Documentation for Spot Sewer Repair Contracts

The Contractor shall, submit following documentation with each invoice submitted to the Company for payment for Spot Sewer Repair Contracts:

- Utility Facility Crossing Support and Work Around Summary.
- "Drawing for Support and Work Around Invoice for Utility Facilities" identifying company reimbursed work by block, type of facility and shall include following:
  - Identification of all Utility Crossings by alpha-numerical numbering system (e.g., E1, E2, G1, G2);
  - Location and size of all Utility Crossings
  - Length of all Utility Crossings.
  - Invoice and as-built templates should be utilized and all information filled out in its entirety (e.g. City Representative's Name and Signature, Date, the Contractor's Full Name, Signature, etc.)
- Photos of following Utility Crossings:
  - All Duct Bank Structures and related measurements
  - All Utility Crossings six-feet (6') or greater in length
  - All unmarked active Utility Crossings that are supported
  - Each utility that varies in size and/or location from USA street marking(s).
- Underground Service Alert ticket number

Photos

All photos must include:

- Label with Utility Crossing Reference Number
- Name of Street or Intersection
- Above-ground picture that includes a landmark (street sign, or house) that helps identify location of the crossing.

Unexpected or Unidentified Facilities

If, during the course of the work, an unexpected or unidentified interference is discovered, the Contractor shall immediately call this fact to the attention of all Utility Companies, including appropriate City Departments. The City Departments and Utility Company shall have 48 hours from receipt of such notification including at least 8 working hours to determine ownership and provide direction to the Contractor for disposition of the facility which are not in direct conflict with City Project work and can be supported, worked around and protected in the trench. However, if the unidentified facility is in direct physical conflict with the City Project work and the Contractor cannot proceed further without resolution, the Utility Company and City Departments will visit the site as soon as possible within the 24 hours from receipt of such notification to determine ownership and provide direction to the Contractor. The time allowance shall include at least 8 working hours. If the ownership of the unidentified facility is unknown, the Contractor shall call Underground Service Alert (USA) requesting Utility Agencies to visit the site to identify the ownership. If no determination can be made after the aforementioned procedure is followed, the Contractor will follow the direction of the City Representative or authorized designee to either remove the facility as abandoned or support and work around the facility. Disposition shall be in accordance with the applicable requirements of Section 00 73 20, Article 1.5, if such facilities are owned by companies other than listed above. If ownership is by one or more of the companies listed above, disposition shall be as hereinbefore set forth under the heading, "Utility Co. Facility Support, Etc., Work Overlooked, Unexpected, and Not Shown on Utility Contract Drawings, But Ownership Known." If City Representative directs the contractor to support and work around a facility whose ownership is unknown and can not be confirmed that it is abandoned, support and work around work of such facility will be paid for by the City according to the Cost of Fixed Price Schedule hereinafter set forth plus an additional fifteen (15) percent surcharge for Contractor's profit and overhead.

Progress Payments

Progress payment for the utility crossing work done shall be made by Company within ninety (90) days of receipt of an invoice from the Contractor submitted along with the supporting documentation listed above.

III. METHOD OF DETERMINING UTILITY CROSSING COSTS

Fixed Price Schedule

The cost of support, work around and protection of utility mains, duct structures and services shall be based on the outside diameter or width of said Facilities and the length of the Utility Crossing.

In the following schedules the maximum outside diameter shall mean outside diameter of pipe, conduit, service, duct or main **excluding** any fittings, bells, or gate valves, and width shall mean the distance measured horizontally across the duct structure.

Cost of Utility Crossing = Fixed Cost + Support Cost

Group I: Length of Crossing less than Six (6) Feet

Maximum Outside Diameter Of Main And Service Or Width Of Duct Structure	Fixed Cost	Support Cost Per Foot of Length of Crossing
4 inches or less	$717	0
Over 4 inches to 20 inches	$717 + $119 per inch over 4 inches	0
Over 20 inches	$2,628 + $199 per inch over 20 inches	0

Group II: Length of Crossing Six (6) Feet to Twelve (12) Feet

Maximum Outside Diameter Of Main And Service Or Width Of Duct Structure	Fixed Cost	Support Cost Per Foot of Length of Crossing Over Six Feet
4 inches or less	$916	$119
Over 4 inches to 20 inches	$916 + $127 per inch over 4 inches	$119
Over 20 inches	$2,955 + $215 per inch over 20 inches	$119

Group III: Length of Crossing Greater than Twelve (12) Feet

Maximum Outside Diameter Of Main And Service Or Width Of Duct Structure	Fixed Cost	Support Cost Per Foot of Length of Crossing Over Twelve Feet
4 inches or less	$1,633	$159
Over 4 inches to 20 inches	$1,633 + $143 per inch over 4 inches	$159
Over 20 inches	$3,926 + $239 per inch over 20 inches	$199

SECTION U2. SUPPORT, WORK AROUND, AND PROTECT EXISTING PACIFIC GAS AND ELECTRIC COMPANY (PG&E) UNDERGROUND FACILITIES - STANDARD TECHNICAL SPECIFICATIONS

The requirements for supporting, working around, and protecting existing Pacific Gas and Electric Company (PG&E) underground electric, gas and steam facilities are as follows:

For pipe and conduit in sizes up to and including 6 inches inside diameter, spans of less than 6 feet shall be considered self-supporting unless otherwise directed by the City or by the PG&E inspector through the City Representative. Spans of 6 feet and more, but not to exceed 12 feet, shall be supported by a beam with at least one cable and turnbuckle. For spans over 12 feet, an additional cable and turnbuckle shall be installed for each additional 6 feet or fraction thereof of span. Cables and turnbuckles shall be located to support joints, valves and other fittings. Cast iron joints and valves, where encountered, shall be supported on both sides.

For pipe and conduit in sizes larger than 6 inches inside diameter, spans shall be supported by beams with cables and turnbuckles located at intervals not to exceed ten times the diameter of the pipe measured in inches, unless otherwise directed by the City or PG&E inspector through the City Representative. Cable and turnbuckles shall be located to support joints, valves, and other fittings. Cast iron joints and valves, where encountered, shall be supported on both sides.

Concrete-encased duct lines and/or concrete-encased steam lines shall not be considered as self-supporting, but may be so designated by the City or PG&E inspector through the City Representative, upon a visual examination of the concrete envelope.

Beams, cables and turnbuckles for supporting steel pipe and/or conduit shall be adequately sized to limit the deflection so as not to exceed length of span in feet divided by 360.

Length of Span in Feet

Beams, cables and turnbuckles used for supporting cast iron pipe shall be adequately sized to insure that no deflection will occur.

Beams, cables and turnbuckles used for supporting concrete encased duct lines and/or concrete encased steam lines shall be adequately sized and spaced to insure that no deflection will occur.

For multi-way conduits, spacers shall be placed to maintain conduit separation at point of support. 2-inch x 4-inch wood softeners shall be used with all cable slings to prevent damage to pipe, coating, wrapping or concrete encasement. However, slings supporting unreinforced concrete encased pipe must also incorporate strongbacks to prevent cracking of concrete.

Contractor shall exercise due care to avoid damage to pipe and pipe coatings, wrapping or concrete encasement. To help prevent damage to gas pipelines and other PG&E underground utilities, call 811 at least two (2) working days before and up to fourteen (14) days in advance of an excavation so that all crossings can be verified. Should Contractor damage or displace any PG&E facility: move to a safe location, call 911, and then contact PG&E at 1-800-743-5000 (gas and electric facilities). Repairs or replacements will be made by the PG&E. However, all expenses in connection therewith shall be borne solely by Contractor.

SECTION U3. SUPPORT, WORK AROUND, AND PROTECT EXISTING PACIFIC BELL TELEPHONE COMPANY D/B/A AT&T CALIFORNIA (AT&T) UNDERGROUND FACILITIES - STANDARD TECHNICAL SPECIFICATIONS

General

The requirements for supporting, working around, and protecting existing AT&T underground facilities are as follows:

Requirements for Supporting AT&T Ducts

A single duct spanning less than 6 feet shall be considered self-supporting unless otherwise directed by the City or by the AT&T inspector through the City Representative.

A single duct spanning more than 6 feet shall be supported by a beam with at least one cable and turnbuckle. For spans over 12 feet, an additional cable and turnbuckle shall be installed for each additional 6 feet or fraction thereof of span. Cables and turnbuckles shall be located to support duct joints.

Duct structures consisting of 2 or more single ducts not encased in concrete and spanning more than 4 feet, shall be banded with at least 2 bands and supported by a beam with at least one cable and turnbuckle. For spans over 8 feet, an additional set of bands, cable and turnbuckle shall be installed for each additional 4 feet or fraction thereof of span. Banding of ducts shall be done in such a manner as to not distort the normal configuration of the structure.

Duct structures consisting of 2 or more single ducts, encased in concrete and spanning more than 4 feet, shall be supported by a beam with at least one cable and turnbuckle. For spans over 8 feet, an additional cable and turnbuckle shall be installed for each additional 4 feet or fraction thereof of span.

Multiple-duct structures of vitrified clay and/or concrete shall be supported for the complete width of the trench. The support shall consist of planking or beams equal in width to the width of the structure and banded to it. This structure in turn shall be supported by a beam with at least one cable and turnbuckle placed every 4 feet or fraction thereof so as to maintain the existing position and alignment of the duct structure.

Duct structures consisting of dissimilar conduit materials shall be supported in the manner applicable to the most fragile portion of the structure.

Requirements for Protecting AT&T Ducts

Single ducts shall be protected if required. This determination will be made by the City or by the AT&T inspector through the City Representative.

Duct structures having top and bottom wood planking or encased in concrete will not require additional protection unless otherwise directed by the City or by the AT&T inspector through the City Representative.

All other multiple duct structures, with the exception of steel pipe in good condition, shall be protected by the placement of wood planking or sheeting no less than 1/2-inch in thickness and equal in width to the width of the structure.

Damage or Displacement of AT&T Facilities

Should Contractor damage or displace any AT&T owned facility, the Cable Maintenance Department of AT&T shall be notified immediately by calling 611, press Option 1, and then Option 5. Repairs or replacements will be made by AT&T. However, all expenses in connection therewith shall be borne solely by Contractor

SECTION U4. SUPPORT, WORK AROUND, AND PROTECT EXISTING COMCAST CORP. (COMCAST) UNDERGROUND FACILITIES - STANDARD TECHNICAL SPECIFICATIONS

General

The requirements for supporting, working around, and protecting existing Comcast underground facilities are as follows:

Requirements for Supporting Comcast Corp. Ducts

A single duct spanning less than six (6) feet shall be considered self-supporting, unless otherwise directed by the Comcast engineering coordinator or the Comcast inspector, through the City Representative.

A single duct spanning more than six (6) feet shall be supported by a beam with at least one cable and turnbuckle. For spans over twelve (12) feet, an additional cable and turnbuckle shall be installed for each additional six (6) feet or fraction thereof of span. Cables and turnbuckles shall be located to support duct joints.

Duct Structures consisting of two (2) or more single ducts spanning more than four (4) feet shall be banded with at least two (2) bands and supported by a beam with at least one (1) cable and turnbuckle. For spans over eight (8) feet an additional set of bands, cable, and turnbuckle shall be installed for each additional four (4) feet or fraction thereof of span. Banding of ducts shall be done in such a manner as to not distort the normal configuration of the structure.

Duct structures consisting of dissimilar conduit materials shall be supported in the manner applicable to the most fragile portion of the structure.

Requirements for Protecting Comcast Ducts

Single ducts shall be protected if required. This determination will be made by the Comcast engineering coordinator or by the Comcast Corp. inspector, through the City Representative.

Duct Structure having top and bottom wood planking will not require additional protection unless otherwise directed by the Comcast engineering coordinator or the Comcast Corp. inspector through the City Representative.

All other multiple duct structures shall be protected by the placement of wood planking or sheeting no less than 1/2-inch in thickness and equal in width to the width of the structure.

Damage or Displacement of Comcast Facilities

Should Contractor damage or displace any Comcast owned facility the proper authorities shall be notified immediately by calling 1-888-824-8399. Repairs or replacements will be made by Comcast. However, all expenses in connection therewith shall be borne solely by Contractor.

SECTION U5. SUPPORT, WORK AROUND, AND PROTECT EXISTING MUNI TRANSIT POWER (MTP) UNDERGROUND FACILITIES - STANDARD TECHNICAL SPECIFICATIONS

General

The requirements for supporting, working around, and protecting existing Muni Transit Power (MTP) underground conduit and ducts are as follows:

Requirements for Supporting MTP Conduits and Ducts

Steel conduit spanning less than six feet shall be considered self-supporting unless otherwise directed by the City or by the MTP inspector through the City Representative.

Steel conduit spanning six feet and more shall be supported by a beam with at least one cable and turnbuckle. For spans over 12 feet, an additional cable and turnbuckle shall be installed for each additional six feet or fraction thereof of span. Cables and turnbuckles shall be located to support duct joints.

Beams, cables and turnbuckles for supporting steel conduit shall be adequately sized to limit the deflection so as not to exceed length of span in feet divided by 360.

Spacers shall be placed between multiple conduits in a manner to maintain conduit separation at points of support.

Concrete-encased ducts spanning more than four feet shall be supported by a beam with at least one cable and turnbuckle. For spans over eight feet, an additional cable and turnbuckle shall be installed for each additional four feet or fraction thereof of span for the complete width of the excavation.

Beams, cables and turnbuckles for supporting concrete-encased duct lines shall be adequately sized and spaced to insure that no deflection will occur.

Contractor shall provide adequate support and protection to prevent differential movement at the juncture of manholes and duct banks.

Duct structures consisting of dissimilar conduit materials shall be supported in the manner applicable to the most fragile portion of the structure.

Requirements for Protecting MTP Conduits and Ducts

Steel conduit shall be protected if required. This determination will be made by the City or by the MTP inspector through the City Representative.

Duct structures having top and/or bottom wood planking or encased in concrete will not require additional protection unless otherwise directed by the City or by the MTP inspector through the City Representative.

All other duct structures, such as unprotected tile and the like, shall be adequately protected by the placement of wood planking or sheeting no less than 1/2-inch in thickness and equal in width to the width of the structure. The top, bottom and sides shall be covered as necessary, depending on Contractor's operations and the conditions of the work.

Damage or Displacement of MTP Facilities

Should Contractor damage or displace any MTP owned facility, John Orkes, Overhead Lines Superintendent of the Traction Power Group (TPG), shall be notified immediately by calling 1-415-554 9221. Repairs or replacements will be made by MTP. However, all expenses in connection there with shall be borne solely by Contractor.

Conduits to Pole Risers to be Considered as Services

For the purpose of payment, conduits that run directly from a manhole or pull box to a pole riser shall be considered to be a service and will be paid for according to the Cost of Utility Crossing Schedule.

END OF SECTION

SECTION 00 73 25

ARCHAEOLOGICAL CONDITIONS

1.01 SUMMARY

A. This Section includes procedures to provide for protection, removal, or investigation of archaeological findings, and to provide Contractor such compensation or relief as may be appropriate for unforeseen Work or for Work suspension directed by the City under the provisions of the Contract Documents.

B. Pursuant to the California Environmental Quality Act of 1970 and the National Historic Preservation Act of 1966 as amended (54 U.S.C. 306108), the City intends to provide for the preservation and protection of such material of an archaeological nature as may be of scientific or historical value.

C. Pursuant to the California Public Resources Code Sections 5097.94 et seq. and California Health and Safety Code Section 7050.5., the City intends to protect Native American burials, skeletal remains, and associated grave goods encountered during construction, regardless of their antiquity, and to provide for the sensitive treatment and disposition of those remains.

1.02 GENERAL

A. Collection of prehistoric, historic, or fossil material is strictly prohibited.

B. Taking photos of prehistoric, historic, or fossil material and distribution of such, including online and posting to social media, is strictly prohibited.

1.03 DISCOVERY OF ARCHAEOLOGICAL FINDS

A. If potential historical, architectural, archaeological, or cultural resources are discovered at the Site, the following procedures are to be instituted:

1. Immediately report all historical, architectural, archaeological or cultural resources finds to the City Representative. Prehistoric finds, including human remains, shall also be reported to local Native American organizations by the City. Human remains shall also be reported to the San Francisco Coroner by the City.

2. Immediately stop all Work within 25 feet of the discovery and demarcate the area for avoidance (e.g., fencing or other barrier).

3. The City's Archeologist, while onsite, has the authority to verbally direct the Contractor to suspend Work.

4. If the suspension will last more than 1 working day, the City Representative will also issue a written order to suspend Work in accordance with Paragraph 14.02 of Section 00 72 00 directing Contractor to cease all construction

operations only at the location of such potential historical, architectural, archaeological, or cultural resources finds.

5. If required by the nature of the discovery encountered and as directed by the City Representative, Contractor shall relocate Work and adjust its construction schedule to allow implementation of required archaeological treatment measures.

6. Contractor shall provide safe access to the City's Archaeologist to document the discovery and take the steps necessary to ensure safe access.

7. The City's Archaeologist will assess the significance of the find and immediately report it to the San Francisco Planning Department's Environmental Review Officer (ERO) or local authority, who will recommend specific additional measures as necessary to minimize potential effects on cultural resources. Such measures may include, but are not limited to, additional site security; changes to the Contractor's operations; on-site investigations by the City Archaeologist; and documentation, preservation, and recovery of cultural materials. Following implementation of required measures, City will send copies of reports related to the resource to the Planning Department and the Northwest Information Center of the California Historical Resources Information System.

B. Contractor shall only resume Work in affected area upon verbal notification by the City Representative, including by the City's Archeologist. For suspension of Work lasting greater than 1 working day, the City Representative will also issue a written order to resume Work.

C. Cost or time impacts as a result of a suspension under this Section shall be resolved as provided in Section 00 72 00 – refer to Article 6 for Changes and Article 13 for Claims.

D. For Work suspensions, there shall be no compensation to Contractor for any delays up to a total of 20 working days due to the City Representative or City Archeological Monitor's order to suspend Work. ***Project Engineer: 1.02D is an optional paragraph for the project to "pre-purchase" a certain period of delay for projects where there is a decent chance of archaeological-related delays. Include this paragraph if Section 01 35 43 requires archeological monitoring. If uncertain, consult Kimberly Stern Liddell with the Environmental Management Group.***

1.04 EXAMPLES OF ARCHEOLOGICAL RESOURCES

A. Prehistoric-era Native American resources may include, but are not limited to, concentrations of shellfish remains; evidence of fire (e.g., ashes, charcoal, burnt earth, fire-cracked rocks); concentrations of bones; and artifacts (e.g., arrowheads, shell beads, stone mortars and pestles, humanly shaped rock).

B. Historic-era resources may include, but are not limited to, cobblestones, old brick drainage catch basins, or railroad rail or ties; brick building foundation remains; trash pits, privies (outhouse holes); floor remains; wells, concentration of bottles, broken

dishes, shoes, buttons; cut animal bones; hardware, household items, barrels, etc.; debris from the Great 1906 Earthquake and Fire (thick layers of burned building debris, charcoal, nails, fused glass, burned plaster, burned dishes, etc.); wood structural remains (planks, building, ship, wharf, etc.); clay roof/floor tiles; stone walls or footings; gravestones.

END OF SECTION

SECTION 00 73 30

LOCAL HIRING REQUIREMENTS

1.01 SUMMARY

A. This Section 00 73 30 incorporates applicable requirements of the San Francisco Local Hiring Policy for Construction ("Policy") as set forth in Section 6.22(g) and Chapter 82 of the San Francisco Administrative Code. The Provisions of the Policy are hereby incorporated as a material term of this Contract. Contractor agrees that (i) Contractor shall comply with all applicable requirements of the Policy; (ii) the provisions of the Policy are reasonable and achievable by Contractor and its Subcontractors; and (iii) they have had a full and fair opportunity to review and understand the terms of the Policy.

B. The Office of Economic and Workforce Development (OEWD) is responsible for administering the Policy. For more information on the Policy and its implementation, please visit the OEWD website at: www.oewd.org.

C. Meeting the local hiring requirements of the Policy as set forth in this Section will satisfy Contractor's obligations under the City's First Source Hiring Program (San Francisco Administrative Code Chapter 83).

1.02 DEFINITIONS

A. "Apprentice" means any worker who is indentured in a construction apprenticeship program that maintains current registration with the State of California's Division of Apprenticeship Standards.

B. "Area Median Income (AMI)" means unadjusted median income levels derived from the Department of Housing and Urban Development ("HUD") on an annual basis for the San Francisco area, adjusted solely for household size, but not high housing cost area.

C. "Covered Project" means a public work or improvement or part thereof with estimated cost in excess of the Threshold Amount as set forth in Section 6.1 of the San Francisco Administrative Code.

D. "Non-covered Project" means any construction projects not covered by the San Francisco Local Hiring Policy.

E. "Disadvantaged Worker" means a local resident, who (i) resides in a census tract within the City with a rate of unemployment in excess of 150% of the City unemployment rate; or (ii) at the time of commencing work on a covered project has a household income of less than 80% of the AMI, or (iii) faces or has multiple barriers to employment as set forth in Section 82.3 of the Administrative Code.

F. "Local Resident" means an individual who is domiciled, as defined by Section 349(b) of the California Election Code, within the City at least seven (7) days prior to commencing work on the project. For projects outside the jurisdictional boundaries of

the City, "local resident" also applies to residents within the San Francisco Public Utilities Commission service territory, except where a reciprocity agreement exists with another local agency, in which case the reciprocity agreement controls. [1]

G. "Project Work Hours" means the total work hours worked on a construction contract by all apprentices and journey-level workers, whether those workers are employed by the Contractor or any Subcontractor.

H. "Job Notification" means the written notice of any Hiring Opportunities from Contractor to CityBuild. Contractor shall provide Job Notifications to CityBuild with a minimum of three (3) business days' notice.

I. "Targeted Worker" means any Local Resident or Disadvantaged Worker.

1.03 LOCAL HIRING REQUIREMENTS

A. Total Project Work Hours by Trade. For all Covered Projects advertised for bids on or after March 25, 2013, the mandatory participation level in terms of Project Work Hours within each trade to be performed by Local Residents is 30%, with a goal of no less than 15% of Project Work Hours within each trade to be performed by Disadvantaged Workers.

B. Apprentices. For all Covered Projects, at least 50% of the Project Work Hours performed by apprentices within each trade shall be performed by Local Residents, with a goal of no less than 25% of Project Work Hours performed by apprentices within each trade to be performed by Disadvantaged Workers.

C. Out-of-State Workers. For all Covered Projects, Project Work Hours performed by residents of states other than California will not be considered in calculation of the number of Project Work Hours to which the local hiring requirements apply. Contractors and Subcontractors shall report to SFPUC and OEWD the number of Project Work Hours performed by residents of states other than California.

D. Pre-construction or other Local Hire Meeting. Prior to commencement of construction on Covered Projects, Contractor and its Subcontractors identified in the Local Hiring Forms as contributing toward the mandatory local hiring requirement shall attend a preconstruction or other Local Hire meeting(s) convened by awarding department or OEWD staff. Representatives from Contractor and the Subcontractor(s) who attend the pre-construction or other Local Hire meeting must have hiring authority.

[1] For Covered Projects located in whole or in part in San Mateo County, the following reciprocity agreement controls: http://oewd.org/sites/default/files/Workforce/Workforce-Docs/SFO-SM%20reciprocity%20agreement.pdf

E. The Policy does not limit Contractor's or its Subcontractors' ability to assess qualifications of prospective workers, and to make final hiring and retention decisions. No provision of the Policy shall be interpreted so as to require a Contractor or Subcontractor to employ a worker not qualified for the position in question, or to employ any particular worker.

1.04 CITYBUILD WORKFORCE DEVELOPMENT PROGRAM: EMPLOYMENT NETWORKING SERVICES

A. OEWD administers the CityBuild Program. CityBuild is a resource for Contractor and Subcontractors to use in meeting local hiring requirements under the Policy. CityBuild has two main goals:

1. Assist with local hiring requirements under the Policy by connecting Contractor and Subcontractors with qualified journey-level, apprentice, and pre-apprentice local residents.

2. Promote training and employment opportunities for disadvantaged workers of all ethnic backgrounds and genders in the construction work force.

B. Where Contractor's or its Subcontractors' preferred or preexisting hiring or staffing procedures for a Covered Project do not enable Contractor to satisfy the local hiring requirements of the Policy, the Contractor or Subcontractor shall use other procedures to identify and retain Targeted Workers, including the following:

1. Requesting to connect with workers through CityBuild, with qualifications described in the request limited to skills directly related to performance of job duties.

2. Considering Targeted Workers networked through CityBuild within three business days of the request and who meet the qualifications described in the request. Such consideration may include in-person interviews. All workers networked through CityBuild will qualify as Disadvantaged Workers under the Policy. Neither Contractor nor its Subcontractors are required to make an independent determination of whether any worker is "disadvantaged" as defined in the Policy.

1.05 CONDITIONAL WAIVER FROM LOCAL HIRING REQUIREMENTS

A. Contractor or the Subcontractor may use one or more of the following pipeline and retention compliance mechanisms to receive a conditional waiver from the local hiring requirements on a project-specific basis. All requests for conditional waivers must be submitted to OEWD for approval.

1. Specialized Trades. OEWD has published a list of trades designated as “Specialized Trades” for which the local hiring requirements of the Policy will not apply. The list is available on the OEWD website. Contractor and its Subcontractors shall report to OEWD the project work hours utilized in each

designated Specialized Trade and in each OEWD-approved project-specific Specialized Trade.

2. Credit for Hiring on Non-Covered Projects. Contractor and its Subcontractors may accumulate credit hours for hiring Targeted Workers on Non-Covered Projects in the nine-county San Francisco Bay Area and apply those credit hours to contracts for Covered Projects to meet the mandatory local hiring requirement. For hours performed by Targeted Workers on Non-Covered Projects, the hours shall be credited toward the local hiring requirement for this Contract provided that:

   a. the Targeted Workers are paid the prevailing wages for work on the Non-Covered Projects; and

   b. for Non-Covered Projects located in the City, the number of hours to be credited for the Non-Covered Project exceed one-half of the number of hours that would be required if the project were a Covered Project.

3. Sponsoring Apprentices. Contractor or a Subcontractor may agree to sponsor an OEWD-specified number of new apprentices in trades in which noncompliance is likely and retaining those apprentices for the period of Contractor's or a Subcontractor's work on the project. OEWD will verify with the California Department of Industrial Relations that the new apprentices are registered and active apprentices.

4. Direct Entry Agreements. OEWD is authorized to negotiate and enter into direct entry agreements with apprenticeship programs that are registered with the California Department of Industrial Relations' Division of Apprenticeship Standards. Contractor may avoid assessment of penalties for non-compliance with the Policy by Contractor or Subcontractor hiring and retaining apprentices who are enrolled through such direct entry agreements. Such exception from assessments of penalties is subject to review and approval by OEWD.

1.06 LOCAL HIRING FORMS

A. Utilizing the City's online Project Reporting System ("PRS"), Contractors shall submit the following forms, as applicable, to the SFPUC **within 15 calendar days of notice of Award:**

1. Form 1: Local Hiring Workforce Projection. The City will not issue Notice to Proceed (NTP) until Contractor completes and submits a Local Hiring Workforce Projection.

2. Upon commencement of work, Contractor and its Subcontractors may submit Job Notifications to CityBuild to connect with local trades workers.

3. Form 4: Conditional Waivers. To be completed by Contractor in the event that Contractor or a Subcontractor believes the local hiring requirements cannot be met. Refer to Articles 1.04 and 1.05 for more information regarding conditional waivers.

1.07 ENFORCEMENT, RECORD KEEPING, NONCOMPLIANCE AND PENALTIES

A. Subcontractor Compliance. Contractor shall ensure that Subcontractors of all tiers comply with applicable requirements of the Policy. Refer to Administrative Code Section 82.7(d).

B. Reporting. As required by Subparagraph 9.03M of the General Conditions (Section 00 72 00) Contractor shall submit certified payrolls to the City electronically using the Project Reporting System. OEWD and SFPUC will monitor compliance with the Policy electronically.

C. Recordkeeping. Contractor and each Subcontractor shall keep, or cause to be kept, for a period of four years from the date of Substantial Completion of project work, certified payroll and basic records, including time cards, tax forms, and superintendent and foreman daily logs, for all workers within each trade performing work on the Project.

1. Such records shall include the name, address and social security number of each worker who worked on the covered project, his or her classification, a general description of the work each worker performed each day, the apprentice or journey-level status of each worker, daily and weekly number of hours worked, the self-identified race, gender, and ethnicity of each worker, whether or not the worker was a local resident, and the referral source or method through which the contractor or subcontractor hired or retained that worker for work on the covered project (e.g., core workforce, name call, union hiring hall, City-designated referral source, or recruitment or hiring method).

2. Contractor and Subcontractors may verify that a worker is a Local Resident by following OEWD's domicile policy.

3. All records described in this subsection shall at all times be open to inspection and examination by the duly authorized officers and agents of the City, including representatives of the awarding department and the OEWD.

D. Monitoring. From time to time and in its sole discretion, OEWD and/or the awarding department may monitor and investigate compliance of Contractor and Subcontractors working on the Project with requirements of this Policy. Consistent with the Access to Work provisions of Paragraph 3.14 of the General Conditions (Section 00 72 00), Contractor shall allow representatives of OEWD and the awarding department, in the performance of their duties, to engage in random inspections of the Site. Contractor and all Subcontractors shall also allow representatives of OEWD and the awarding department to have access to employees of Contractor and Subcontractors and the records required to be maintained under the Policy.

E. Noncompliance and Penalties. Failure of Contractor and/or its Subcontractors to comply with the requirements of the Policy and the obligations set forth in the Local Hiring Plan may subject Contractor to the consequences of noncompliance specified in Section 82.8(f) of the Administrative Code, including but not limited to the

penalties prescribed in Section 82.8(f)(2). The assessment of penalties for noncompliance shall not preclude the City from exercising any other rights or remedies to which it is entitled. Refer to Administrative Code Section 82.8(f)(4) for a description of the recourse procedure applicable to penalty assessments under the Policy.

END OF SECTION

SAN FRANCISCO
Office of Economic and Workforce Development

CITY AND COUNTY OF SAN FRANCISCO
OFFICE OF ECONOMIC AND WORKFORCE DEVELOPMENT
CITYBUILD PROGRAM

LOCAL HIRING PROGRAM
OEWD FORM 1
CONSTRUCTION CONTRACTS

FORM 1: LOCAL HIRING WORKFORCE PROJECTION

Contractor: _____ **Project Name:** _____ **Contract #:** _____

The Contractor must complete and submit this *Local Hiring Workforce Projection* (Form 1) within 15 calendar days from notice award of the contract. The Contractor must include information regarding all of its Subcontractors who will perform construction work on the project regardless of Tier and Value Amount. Notice to Proceed (NTP) will not be issued until the City receives a completed Form 1 from Contractor. The Contractor shall be responsible for any delays to NTP and resulting damages incurred by the City caused by Contractor's failure to submit an accurate and complete Form 1 for its workforce and the workforce of its Subcontractors in a timely manner.

Will you be able to meet the mandatory Local Hiring Requirements?

☐ **YES** (***Please provide information for all contractors performing construction work in Table 1 below.)***

☐ **NO** (***Please complete Table 1 below and Form 4: Conditional Waivers.***)

INSTRUCTIONS FOR COMPLETING TABLE 1:

1. Please organize the contractors' information based on their Trade Craft work.
2. For contractors performing work in various Trade Craft, please list contractor name in each Trade Craft (*i.e. if Contractor X will perform two trades, list Contractor X under two Trade categories*.)
3. If you anticipate utilizing apprentices on this project, please note the requirement that 50% of apprentice hours must be performed by Local Residents.
4. Additional blank form is available at our Website: www.oewd.org. For assistance or questions in completing this form, contact (415) 701-4894 or Email @ Local.hire.ordinance@sfgov.org.

TABLE 1: WORKFORCE PROJECTION

Trade Craft		Contractor *List contractors by Trade Craft*		Est. Total Work Hours	Est. Total Local Work Hours	Est. Total Local Work Hours %
Example:	*Laborer*	*Contractor X*	***Journey***	800	250	31%
			Apprentice	200	100	50%
Example:	*Laborer*	*Contractor Y*	***Journey***	500	100	20%
			Apprentice	0	0	0
Example:		**TOTAL LABORER**	***Journey***	1300	350	**27%**
			Apprentice	200	100	**50%**
Example:			**TOTAL**	**1500**	**450**	**30%**
			Journey			
			Apprentice			
			Journey			
			Apprentice			
			Journey			
			Apprentice			

DISCLAIMER: *If the Total Work Hours for a Trade Craft are less than 5% of the Total Project Work Hours, the Trade Craft is exempt from the Mandatory Requirement. Subsequently, if the Trade Craft exceeds 5% of the Total Project Work Hours at any time during the project, the Trade Craft is subject to the Mandatory Requirement.*

Name of Authorized Representative	Signature	Date	Phone	Email

SAN FRANCISCO
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LOCAL HIRING PROGRAM
OEWD FORM 4
CONSTRUCTION CONTRACTS

FORM 4: CONDITIONAL WAIVERS

Contractor: _____ **Project Name:** _____ **Contract #:** _____

Upon approval from OEWD, Contractors and Subcontractors may use one or more of the following pipeline and retention compliance mechanisms to receive a Conditional Waiver from the Local Hiring Requirements on a project-specific basis. Conditional Waivers must be approved by OEWD prior to approval of Contractor's first Application for Payment. If applicable, each contractor must submit their individual Waiver request to OEWD and copy their Prime Contractor.

TRADE WAIVER INFORMATION: Please provide information on the Trades you are requesting Waivers for:

Laborer Trade Craft	Est. Total Work Hours	Projected Deficient Local Work Hours	Laborer Trade Craft	Est. Total Work Hours	Projected Deficient Local Work Hours
1.			3.		
2.			4.		

Please check any of the following Conditional Waivers and complete the appropriate boxes for approval:

☐ **1. SPECIALIZED TRADES** ☐ **2. SPONSOR APPRENTICE(S)** ☐ **3. CREDIT FOR NON-COVERED PROJECTS or DIRECT ENTRY HIRE**

1. SPECIALIZED TRADES: Will your firm be requesting Conditional Waivers for "Specialized Trades" designated by OEWD and listed on OEWD's website or project-specific Specialized Trades approved by OEWD during the bid period? ☐ Yes ☐ No

Please CHECK off the following Specialized Trades you are claiming for Condition Waiver:

☐ MARINE PILE DRIVER ☐ HELICOPTER, CRANE, OR DERRICK BARGE OPERATOR ☐ IRONWORKER CONNECTOR
☐ STAINLESS STEEL WELDER ☐ TUNNEL OPERATING ENGINEER ☐ ELECTRICAL UTILITY LINEMAN ☐ MILLWRIGHT
☐ TRADE CRAFT IS LESS THAN 5% OF TOTAL WORK HOURS*. ***LIST:***
*WAIVER VOIDED IF TOTAL WORK HOURS EXCEED 5%.

a. List OEWD-approved project-specific Specialized Trades approved during the bid period:

OEWD APPROVAL: ☐ **Yes** ☐ **No** **OEWD Signature:**

2. SPONSORING APPRENTICES: Will you be able to work with OEWD to sponsor an OEWD-specified number of new apprentices in the agreeable trades into California Department of Industrial Relations' Division of Apprenticeship Standards approved apprenticeship programs? ☐ Yes ☐ No

PLEASE PROVIDE DETAILS:

Construction Trade	Est. # of Sponsor Positions	Union (Yes / No)	If Yes, Local #	Est. Start Date	Est Duration of Working Days	Est Total Work Hours Performed
		Y ☐ N ☐				
		Y ☐ N ☐				

OEWD APPROVAL: ☐ **Yes** ☐ **No** **OEWD Signature:**

3. CREDIT for HIRING on NON-COVERED PROJECTS or DIRECT ENTRY HIRE: If your firm cannot meet the mandatory local hiring requirement, will you be requesting credit for hiring Targeted Workers on Non-covered Projects or hiring workers with Direct Entry Agreements? ☐ Yes ☐ No

PLEASE PROVIDE DETAILS:

Labor Trade, Position, or Title		Est. # of Off-site Hires	Est Total Work Hours Performed	Offsite Project Name	Project Address
	Journey				
	Apprentice				

OEWD APPROVAL: ☐ **Yes** ☐ **No** **OEWD Signature:**

SECTION 00 73 63

SECURITY REQUIREMENTS

1.01 DESCRIPTION

A. Responsibilities include:

1. Contractor shall comply with the SFPUC's protocol for personnel identification.

2. Site Security shall be the Contractor's responsibility from commencement of Work through Final Completion.

3. Contractor's Site Security Monitor shall be on-site and available at all times while Work is being performed, ensuring that requirements of this Section are met.

1.02 SUBMITTALS

A. Contractor to provide daily sign-in log to the City Representative at the end of the workday identifying all workers and visitors. Log shall include the following information:

- individual's full name
- company name
- responsibilities
- company phone number

B. Submit name and cell phone contact number of individual(s) designated as the Site Security Monitor(s) to the City Representative.

1.03 BACKGROUND CHECKS

A. Upon the request of the SFPUC and at no additional cost to the SFPUC, the Contractor shall provide such information as necessary and as allowed by law for a Department of Justice (DOJ) background check on any person that enters the site. Using the information, the SFPUC subsequently will bear the costs of conducting a DOJ background check.

1.04 PHOTO CONTROL

A. Contractor and its subcontractors shall restrict photographs, video, film, or any other images or image formats to the Limit of Work, unless otherwise required in the Specifications. The Contractor and its subcontractors shall seek the prior written approval of the City Representative before taking any photographs, video, film, or any other images or image formats and shall specifically identify the intended object(s) being captured.

B. Photographs, video, film, negatives, backup copies, archived copies, any electronic hardcopies and electronic or digital files, and any other images or image formats of the project are considered confidential, protected information. The Contractor and its subcontractors agree to hold the above-described confidential, protected information in trust and confidence and agree that it shall be used only for documenting the work performed and shall not be used for any other purpose or be disclosed in any form to any person, entity, or third party without the prior written approval of the SFPUC.

C. The Contractor shall provide to the City Representative at project completion a detailed list of photographs, video, film, negatives, backup copies, archived copies, any electronic hardcopies and electronic or digital files, and any other images or image formats of the project to be retained by the Contractor and its subcontractors.

D. The SFPUC reserves the right to disallow photography at any site, of any SFPUC facilities, equipment, or processes which are deemed to be sensitive in nature.

1.05 PRODUCTIVITY LOSS AND COST DUE TO SECURITY REQUIREMENTS

A. Time lost and/or costs incurred due to compliance with SFPUC security measures shall be deemed an inexcusable delay, and will not be reimbursed for any delay costs. Contractor shall allow additional time to accommodate site security measures.

B. Failure to comply with these security measures may lead to suspension or termination of the Contract, in accordance with Article 14 of Section 00 72 00 (General Conditions).

1.06 PAYMENT

A. Full compensation for any and all costs, including labor, equipment, and materials, required to comply with site security requirements as specified in these Specifications shall be incidental to the price bid for the Contract.

END OF SECTION

SECTION 00 73 73

STATUTORY AND OTHER REQUIREMENTS

TABLE OF CONTENTS

ARTICLE 1 – GENERAL 2

ARTICLE 2 – REQUIREMENTS FOR ALL CITY-ADMINISTERED CONTRACTS 2
2.01 CONFLICT OF INTEREST 2
2.02 NONDISCRIMINATION REQUIREMENTS 5
2.03 REQUIRING MINIMUM COMPENSATION FOR COVERED EMPLOYEES 5
2.04 REQUIRING HEALTH BENEFITS FOR COVERED EMPLOYEES 5
2.05 MACBRIDE PRINCIPLES - NORTHERN IRELAND 6
2.06 PROHIBITION ON USE OF PUBLIC FUNDS FOR POLITICAL ACTIVITY 6
2.07 LIMITATIONS ON CONTRIBUTIONS 6
2.08 NONDISCLOSURE OF PRIVATE, PROPRIETARY OR CONFIDENTIAL INFORMATION 6
2.09 UNFAIR BUSINESS PRACTICES CLAIMS; ASSIGNMENT TO AWARDING BODY 7
2.10 TROPICAL HARDWOOD AND VIRGIN REDWOOD PRODUCTS BAN 7
2.11 PRESERVATIVE-TREATED WOOD CONTAINING ARSENIC 7
2.12 FOOD SERVICE WASTE REDUCTION REQUIREMENTS 8
2.13 LOCAL BUSINESS ENTERPRISE AND NON-DISCRIMINATION IN CONTRACTING REQUIREMENTS 8
2.14 SUNSHINE ORDINANCE 9
2.15 SUBMITTING FALSE CLAIMS; REMEDIES 10
2.16 CONSIDERATION OF CRIMINAL HISTORY IN HIRING AND EMPLOYMENT DECISIONS 10
2.17 DRONES 12
2.18 CONSIDERATION OF SALARY HISTORY 12

ARTICLE 3 – REQUIREMENTS FOR CONSTRUCTION WORK TAKING PLACE WITHIN THE 47 SQUARE MILES OF THE CITY AND COUNTY OF SAN FRANCISCO 13
3.01 SUMMARY 13
3.02 CONSTRUCTION NOISE REQUIREMENTS 13
3.03 NIGHT AND WEEKEND NOISE REQUIREMENTS 14
3.04 REQUIREMENTS FOR USING WATER FOR CONSTRUCTION 15
3.05 AIR QUALITY REQUIREMENTS 15
3.06 EXCAVATION REQUIREMENTS 18
3.07 REQUIREMENTS FOR PROTECTION OF THE SEWER SYSTEM 21
3.08 CLEAN CONSTRUCTION REQUIREMENTS ON MAJOR CONSTRUCTION PROJECTS 22
3.09 CONSTRUCTION BARRICADE REQUIREMENTS 23

ARTICLE 4 – CITY/COUNTY NON-STATUTORY REQUIREMENTS 23
4.01 GENERAL 23

END OF TABLE OF CONTENTS

ARTICLE 1 – GENERAL

A. All requirements in this Section are incidental work, unless specified otherwise.

B. Contractor shall be solely responsible and fully liable for any and all failures to comply with the requirements specified herein, and shall unconditionally and fully indemnify the City for any damages resulting therefrom. If Contractor fails to comply with the requirements specified herein, or fails to promptly take all required remedial actions to the City's satisfaction, the City may withhold progress payments to Contractor until satisfactory compliance has been accomplished and/or may assess statutory liquidated damages or penalties, as applicable.

C. The full text of the City Requirements provided in Articles 2 and 3, below, are incorporated by reference in the Contract Documents, and are available at https://codelibrary.amlegal.com/codes/san_francisco/latest/overview

ARTICLE 2– REQUIREMENTS FOR ALL CITY-ADMINISTERED CONTRACTS

2.01 CONFLICT OF INTEREST

By executing the Agreement (Section 00 52 00), the Contractor agrees to comply fully with and be bound by the applicable provisions of state and local laws related to conflicts of interest, including Section 15.103 of the City's Charter, Article III, Chapter 2 of City's Campaign and Governmental Conduct Code, and Section 87100 et seq. and Section 1090 et seq. of the Government Code of the State of California. The Contractor will be required to acknowledge that it is familiar with these laws; certify that it does not know of any facts that constitute a violation of said provisions; and agree to immediately notify the City if it becomes aware of any such fact during the term of the Agreement.

Individuals who will perform work for the City on behalf of the Contractor might be deemed consultants under state and local conflict of interest laws. If so, such individuals will be required to submit a Statement of Economic Interests, California Fair Political Practices Commission Form 700, to the City within ten calendar days of the City notifying the Contractor that the City has deemed the Contractor to be the lowest, responsible, and responsive Bidder. The term "entity" includes any parent, subsidiary or other related business of the Contractor.

A. Obligations

It is the obligation of the Contractor as well as its Subcontractors and Subconsultants to determine whether or not participation in that contract constitutes a conflict of interest. While city staff maintains records regarding award and execution of contracts, it does not have access to specific information concerning which entities, partners, subconsultants, subcontractors or team members perform specific work on these contracts. A conflict of interest or an unfair advantage may exist without any knowledge of the SFPUC. The database

of our records concerning work performed by various subconsultants or subcontractors is available for reference to Contractors making their own determination of potential conflicts. Contractors have sole responsibility for compliance with these requirements. A court makes the final determination of whether an actual conflict exists. The guidelines below are provided to assist Contractors; however, the City is not providing legal advice in providing the information and assumes no responsibility or liability arising from Contractor's reliance on this information. The guidelines below address conflicts under the aforementioned laws but there are other laws that affect qualifications for a contract.

B. Work

There are many phases of work pertaining to city contracts. Potential conflicts arise out of progressive participation in various phases of that work. Set forth below are general guidelines regarding when participation in a specific phase of work may create a conflict. Because an actual determination regarding whether a conflict exists depends upon the specific facts of each situation, the general guidelines set forth below should be treated only as a starting point. A Contractor should consult with its legal counsel to determine whether a potential conflict exists.

1. **RFI/RFQ/RFP/Bid Documents**. Any entity that participates in the development of any of these documents has participated in "making the contract" for the work. For these purposes "participating in making" has the same meaning as under Government Code Section 1090.

2. **General Program Management Services**. Because these advisory services necessarily assist in general definitions of the program and projects, conflicts would likely exist in participation in the design, construction management, and/or construction phase of any project.

3. **Preplanning**. Participation in preplanning work, which may include the needs assessment report since it is an initial phase, would likely be limited only by previous participation in preparation of RFI/RFQ/RFP or bid documents.

4. **Planning**. The planning phase of any project establishes the facts pertaining to the project and possible options for consideration.

    a. **Alternative Analysis Report**. This phase proposes to decision-makers the various alternatives in project scope, cost, schedule and environmental impact necessary to make a determination of the proper project. Firms may have a conflict of interest in subsequent design work if they participated in the decision-making process of selecting an alternative.

b. **Conceptual Engineering Report**. This document defines the project and shapes the design contract. Participation in this phase may likely be in conflict with any future design services.

5. **Environmental Review**. Similar to the planning phase, this phase of work gathers information from other sources resulting in a definition of the project for the purposes of reviewing the environmental effects of the work. Firms participating in environmental review would likely not have a conflict in participating in subsequent phases.

6. **Final Engineering Design**. Documents produced under this phase constitute the definition of the construction contract. Participation in this phase would likely be in conflict with participation in any subsequent phases, such as construction management or general construction.

7. **Construction Management**. This work consists of review, assessment and recommendation for actions based on interpretation of contract documents. No firm under one contract can review any of its own work performed under another contract. Conflicts would likely arise had any entity participated in either preparation of final engineering design or any documents enumerated in a contract for construction or documents the SFPUC requires a Contractor to rely on in the preparation of their bid. Participation in this phase also would likely be in conflict with participation in the construction phase.

8. **Construction**. It is unlikely that participation in construction contracts would result in conflicts on subsequent contracts. Restrictions on participation in construction contracts may be stipulated in other federal, state or local laws.

9. **Alternative Delivery**. To the extent that an alternative delivery method is used, e.g. design-build or construction manager/general contractor, the restrictions on design or construction management services mentioned herein would apply to those phases of the alternative delivery project.

10. **General**. Work associated with gathering, assessing, or reviewing technical data such as geotechnical investigations, site surveys, condition assessments, or cost estimating would likely have conflicts with other work only if an entity were in a position to review its own work.

11. **Administrative Services**. Any subconsultant or vendor providing general administrative services such as communications, reprographic, janitorial or security services during one phase of a project will not be precluded from providing similar services during later phases of the same project.

C. Consultation with Counsel

The SFPUC strongly advises any proposing/bidding firm to consult with its legal counsel to determine whether or not a conflict of interest exists. It is the responsibility of the proposing/bidding firm to make that determination. The SFPUC will not advise Contractors or consultants on conflict of interest matters.

2.02 NONDISCRIMINATION REQUIREMENTS

A. **Incorporation of Administrative Code Chapters 12B and 12C**. The provisions of Chapters 12B and 12C of the Administrative Code are incorporated herein by this reference. Contractor shall comply with any and all of the provisions that apply to this Agreement under such Chapters, and be bound by the remedies provided in such Chapters. Contractor shall incorporate by reference in all subcontracts the provisions of §§12B.2(a), 12B.2(c)-(k), and 12C.3 of the Administrative Code and shall require all subcontractors to comply with such provisions.

B. **Nondiscrimination in the Provision of Employee Benefits**. Contractor does not as of the date of this Agreement, and will not during the term of this Agreement, in any of its operations in San Francisco, on real property owned by San Francisco, or where Work is being performed for the City elsewhere in the United States, discriminate in the provision of employee benefits between employees with domestic partners and employees with spouses and/or between the domestic partners and spouses of such employees, subject to the conditions set forth in Administrative Code §12B.2.

2.03 REQUIRING MINIMUM COMPENSATION FOR COVERED EMPLOYEES

Contractor shall pay covered employees no less than the minimum compensation required by San Francisco's Minimum Compensation Ordinance (MCO), and shall otherwise comply with the MCO as set forth in Administrative Code Chapter 12P ("Chapter 12P"). The provisions of Chapter 12P, including but not limited to the penalties for noncompliance provided therein, are incorporated herein by this reference, and made part of this Agreement as though fully set forth herein.

By signing the Agreement Form (Section 00 52 00), Contractor certifies that it complies with the requirements of the Minimum Compensation Ordinance, which entitles Covered Employees to certain minimum hourly wages and compensated and uncompensated time off.

2.04 REQUIRING HEALTH BENEFITS FOR COVERED EMPLOYEES

Contractor shall choose and perform one of the Health Care Accountability options set forth in Section 12Q.3 of the Health Care Accountability Ordinance (HCAO), and shall otherwise comply with the HCAO as set forth in Administrative Code Chapter 12Q. The provisions of Chapter 12Q, including but not limited to the penalties for noncompliance provided therein, are incorporated herein by this reference, and made part of this Agreement as though fully set forth herein.

2.05 MACBRIDE PRINCIPLES - NORTHERN IRELAND

The provisions of Administrative Code §12F are incorporated herein by this reference and made part of this Agreement as though fully set forth. By signing this Agreement, Contractor confirms that Contractor has read and understood that the City urges companies doing business in Northern Ireland to resolve employment inequities and to abide by the MacBride Principles, and urges San Francisco companies to do business with corporations that abide by the MacBride

2.06 PROHIBITION ON USE OF PUBLIC FUNDS FOR POLITICAL ACTIVITY

In performing the Work, Contractor shall comply with Administrative Code Chapter 12G, which prohibits funds appropriated by the City for this Agreement from being expended to participate in, support, or attempt to influence any political campaign for a candidate or for a ballot measure. The provisions of Chapter 12G, including but not limited to the penalties for noncompliance provided therein are incorporated by reference and made a part of this Agreement as though fully set forth herein.

2.07 LIMITATIONS ON CONTRIBUTIONS

By executing the Agreement, Contractor acknowledges its obligations under section 1.126 of the City's Campaign and Governmental Conduct Code, which prohibits any person who contracts with, or is seeking a contract with, any department of the City for the rendition of personal services, for the furnishing of any material, supplies or equipment, for the sale or lease of any land or building, for a grant, loan or loan guarantee, or for a development agreement, from making any campaign contribution to (i) a City elected official if the contract must be approved by that official, a board on which that official serves, or the board of a state agency on which an appointee of that official serves, (ii) a candidate for that City elective office, or (iii) a committee controlled by such elected official or a candidate for that office, at any time from the submission of a proposal for the contract until the later of either the termination of negotiations for such contract or twelve months after the date the City approves the contract. The prohibition on contributions applies to each prospective party to the contract; each member of Contractor's board of directors; Contractor's chairperson, chief executive officer, chief financial officer and chief operating officer; any person with an ownership interest of more than 10% in Contractor; any subcontractor listed in the bid or contract; and any committee that is sponsored or controlled by Contractor. By executing the Agreement, the Contractor also certifies that it has informed each such person of the limitation on contributions imposed by Section 1.126 by the time it submitted a bid for the contract and has provided the names of the persons required to be informed to the City department with whom it is contracting.

2.08 NONDISCLOSURE OF PRIVATE, PROPRIETARY OR CONFIDENTIAL INFORMATION

A. If the Contract Documents require City to disclose "Private Information" to Contractor within the meaning of Administrative Code Chapter 12M, Contractor

shall use such information only in accordance with the restrictions stated in this Agreement and as necessary in performing the Services. The provisions of Chapter 12M, including but not limited to the penalties for noncompliance provided therein, are incorporated herein by this reference, and made part of this Agreement as though fully set forth herein.

B. In the performance of Work, CONTRACTOR may have access to City's proprietary or confidential information, the disclosure of which to third parties may damage City. If City discloses proprietary or confidential information to CONTRACTOR, such information must be held by CONTRACTOR in confidence and used only in performing the Agreement. CONTRACTOR shall exercise the same standard of care to protect such information as a reasonably prudent contractor would use to protect its own proprietary or confidential information.

2.09 UNFAIR BUSINESS PRACTICES CLAIMS; ASSIGNMENT TO AWARDING BODY

Under Public Contract Code section 7103.5, Contractor and its Subcontractors shall conform to the following requirements:

A. In entering into the Agreement or subcontract to supply goods, services, or materials under this Agreement, Contractor or its Subcontractors offer and agree to assign the City all rights, title, and interest in and to all causes of action they may have under section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (chapter 2, commencing with section 16700, of part 2 of division 7 of the Business and Professions Code), arising from purchases of goods, services or materials pursuant to the Agreement or subcontract.

B. The assignment shall be made and become effective at the time the City tenders Final Payment to Contractor, without further acknowledgement by the Parties.

C. Contractor shall include the provisions of this Section in its subcontracts and purchase agreements to supply goods, services, or materials pursuant to the Agreement.

2.10 TROPICAL HARDWOOD AND VIRGIN REDWOOD PRODUCTS BAN

Except as expressly permitted by the application of Sections 802(b) and 803(b) of the San Francisco Environment Code, Contractor shall not provide any items to the City in performance of this contract which are tropical hardwoods, tropical hardwood wood products, virgin redwood or virgin redwood wood products. The City urges Contractor not to import, purchase, obtain, or use for any purpose, any tropical hardwood, tropical hardwood product, virgin redwood, or virgin redwood wood product.

2.11 PRESERVATIVE-TREATED WOOD CONTAINING ARSENIC

Contractor may not purchase preservative-treated wood products containing arsenic in the performance of this Agreement unless an exemption from the requirements of Chapter 13

of the San Francisco Environment Code is obtained from the Department of the Environment under Section 1304 of the Code. The term "preservative-treated wood containing arsenic" shall mean wood treated with a preservative that contains arsenic, elemental arsenic, or an arsenic copper combination, including, but not limited to, chromated copper arsenate preservative, ammoniacal copper zinc arsenate preservative, or ammoniacal copper arsenate preservative. Contractor may purchase preservative-treated wood products on the list of environmentally preferable alternatives prepared and adopted by the Department of the Environment. This provision does not preclude Contractor from purchasing preservative-treated wood containing arsenic for saltwater immersion. The term "saltwater immersion" shall mean a pressure-treated wood that is used for construction purposes or facilities that are partially or totally immersed in saltwater.

2.12 FOOD SERVICE WASTE REDUCTION REQUIREMENTS

Contractor shall comply with the Food Service Waste Reduction Ordinance, as set forth in San Francisco Environment Code Chapter 16, including but not limited to the remedies for noncompliance provided therein. The provisions of Chapter 16 are incorporated herein by reference and made a part of this Agreement as though fully set forth herein.

2.13 LOCAL BUSINESS ENTERPRISE AND NON-DISCRIMINATION IN CONTRACTING REQUIREMENTS

A. Pursuant to chapter 14B of the Administrative Code the following requirements are made part of the Contract:

1. Chapters 12B and 14B of the Administrative Code, their implementing Rules and Regulations, and CMD Attachment 1 – Requirements for Construction Contracts, are incorporated by reference herein as though fully set forth. These documents are available to be viewed and downloaded on the Contract Monitoring Division's website:

   http://www.sfgov.org/cmd

   Alternatively, contact the CMD Contract Compliance Officer assigned to this contract for assistance in obtaining any of these documents.

2. The willful failure of Contractor or its subcontractors to comply with any of the requirements of chapter 14B or to comply with the level of LBE subcontractor participation specified herein shall be deemed a material breach of contract.

3. In the event that the Director of Contract Monitoring Division finds that Contractor or any of its subcontractors willfully fails to comply with any of the provisions of Chapter 14B, rules and regulations implementing Chapter 14B, or Contract provisions pertaining to LBE participation, Contractor or its subcontractor shall be liable for liquidated damages as specified in Section 14B.7(H)(2) of the Administrative Code and CMD Attachment 1, article 1.05 "Noncompliance and Sanctions," which shall be payable to the City upon demand and may be set off against moneys due

to Contractor or its subcontractor for any contract with the City. Contractor agrees that progress payments shall be withheld, and Contractor's liability for liquidated damages assessed will be subject to the collection procedures specified in CMD Attachment 1, article 1.05 "Noncompliance and Sanctions."

4. Contractor shall maintain, and shall require its subcontractors to maintain, records including such information requested by CMD necessary for monitoring their compliance with Chapter 14B. Such records shall be maintained for 3 years after the date of Final Completion.

5. Contractor shall fulfill during the term of the Contract its LBE participation commitments submitted with its Bid.

6. Contractor shall compensate a LBE subcontractor as provided in Section 14B.7(H)(5) of the Administrative Code if Contractor does not fulfill its commitment during the term of the Contract to utilize the LBE subcontractor. Contractor shall include a contract provision in all LBE subcontracts requiring Contractor to compensate a LBE subcontractor if Contractor fails to comply with its commitment to utilize LBE subcontractors. The forgoing provisions shall be enforceable in a court of competent jurisdiction. Whenever Change Orders are made which cumulatively increase the Contract Sum by more than 10%, Contractor shall comply with all LBE subcontracting provisions of this Section with respect to the Change Order.

7. Back-contracting to Contractor or lower-tier subcontracting for any purpose inconsistent with the provisions of Chapter 14B, rules and regulations implementing Chapter 14B, or Contract provisions pertaining to LBE participation shall be prohibited.

8. Contractor shall pay its subcontractors within 3 working days after receiving payment from the City unless Contractor notifies the Director of the CMD in writing prior to receiving payment from the City that there is a bona fide dispute between Contractor and the subcontractor. The Director of the CMD may, upon making a determination that a bona fide dispute exists between Contractor and the subcontractor, waive this 3-day payment requirement.

9. Contractor shall submit CMD Contract Performance Forms (CMD Forms 7, 8, 9, and 10) as set forth in CMD Attachment 1, article 1.03.

10. Contractor shall comply with the employment and nondiscrimination provisions as set forth in CMD Attachment 1.

2.14 SUNSHINE ORDINANCE

Contractor acknowledges that the Contract Documents and all records related to their formation, Contractor's performance of Work, and City's payment are subject to the California Public Records Act, (California Government Code §6250 et. seq.), and the San Francisco Sunshine Ordinance, (Administrative Code Chapter 67). Such records are subject to public inspection and copying unless exempt from disclosure under federal,

state, or local law.

2.15 SUBMITTING FALSE CLAIMS; REMEDIES

Pursuant to Article V of Chapter 6 of the Administrative Code, any contractor, subcontractor, supplier, consultant or subconsultant who submits a false claim may be subject to monetary penalties, investigation and prosecution and may be declared an irresponsible Bidder or an unqualified consultant and debarred as set forth in that Article. A contractor, subcontractor, supplier, consultant or sub consultant will be deemed to have submitted a false claim to the City if the contractor, subcontractor, supplier, consultant or subconsultant: (a) knowingly presents or causes to be presented to an officer or employee of the City a false claim or request for payment or approval; (b) knowingly makes, uses, or causes to be made or used a false record or statement to get a false claim paid or approved by the City; (c) conspires to defraud the City by getting a false claim allowed or paid by the City; (d) knowingly makes, uses, or causes to be made or used a false record or statement to conceal, avoid, or decrease an obligation to pay or transmit money or property to the City; or (e) is a beneficiary of an inadvertent submission of a false claim to the City, subsequently discovers the falsity of the claim, and fails to disclose the false claim to the City within a reasonable time after discovery of the false claim.

2.16 CONSIDERATION OF CRIMINAL HISTORY IN HIRING AND EMPLOYMENT DECISIONS

A. Contractor agrees to comply fully with and be bound by all of the provisions of Chapter 12T "City Contractor/Subcontractor Consideration of Criminal History in Hiring and Employment Decisions," of the Administrative Code (Chapter 12T), including the remedies provided, and implementing regulations, as may be amended from time to time. The provisions of Chapter 12T are incorporated by reference and made a part of this Agreement as though fully set forth herein. The text of the Chapter 12T is available on the web at https://sf.gov/information/understanding-fair-chance-ordinance. A partial listing of some of Contractor's obligations under Chapter 12T is set forth in this Section. Contractor is required to comply with all of the applicable provisions of 12T, irrespective of the listing of obligations in this Section. Capitalized terms used in this Section and not defined in this Agreement shall have the meanings assigned to such terms in Chapter 12T.

B. The requirements of Chapter 12T shall only apply to a Contractor's or Subcontractor's operations to the extent those operations are in furtherance of the performance of this Agreement, shall apply only to applicants and employees who would be or are performing work in furtherance of this Agreement, shall apply only when the physical location of the employment or prospective employment of an individual is wholly or substantially within the City of San Francisco, and shall not apply when the application in a particular context would conflict with federal or state law or with a requirement of a government agency implementing federal or state law.

C. Contractor shall incorporate by reference in all subcontracts the provisions of Chapter 12T, and shall require all subcontractors to comply with such provisions. Contractor's failure to comply with the obligations in this subsection shall constitute a material breach of this Agreement.

D. Contractor or Subcontractor shall not inquire about, require disclosure of, or if such information is received base an Adverse Action on an applicant's or potential applicant for employment, or employee's: (1) Arrest not leading to a Conviction, unless the Arrest is undergoing an active pending criminal investigation or trial that has not yet been resolved; (2) participation in or completion of a diversion or a deferral of judgment program; (3) a Conviction that has been judicially dismissed, expunged, voided, invalidated, or otherwise rendered inoperative; (4) a Conviction or any other adjudication in the juvenile justice system; (5) a Conviction that is more than seven years old, from the date of sentencing; or (6) information pertaining to an offense other than a felony or misdemeanor, such as an infraction.

E. Contractor or Subcontractor shall not inquire about or require applicants, potential applicants for employment, or employees to disclose on any employment application the facts or details of any conviction history, unresolved arrest, or any matter identified in Paragraph D, above. Contractor or Subcontractor shall not require such disclosure or make such inquiry until either after the first live interview with the person, or after a conditional offer of employment.

F. Contractor or Subcontractor shall state in all solicitations or advertisements for employees that are reasonably likely to reach persons who are reasonably likely to seek employment to be performed under this Agreement, that the Contractor or Subcontractor will consider for employment qualified applicants with criminal histories in a manner consistent with the requirements of Chapter 12T.

G. Contractor and Subcontractors shall post the notice prepared by the Office of Labor Standards Enforcement (OLSE), available on OLSE's website, in a conspicuous place at every workplace, job site, or other location under the Contractor or Subcontractor's control at which work is being done or will be done in furtherance of the performance of this Agreement. The notice shall be posted in English, Spanish, Chinese, and any language spoken by at least 5% of the employees at the workplace, job site, or other location at which it is posted.

H. Contractor understands and agrees that if it fails to comply with the requirements of Chapter 12T, the City shall have the right to pursue any rights or remedies available under Chapter 12T, including but not limited to, a penalty of $50 for a second violation and $100 for a subsequent violation for each employee, applicant or other person as to whom a violation occurred or continued, termination or suspension in whole or in part of this Agreement.

2.17 DRONES

A. Contractor shall comply with the SFPUC Drone policy, which includes but not limited to applying for approval from the SFPUC Emergency Planning and Security and/or San Francisco Department of Technology's Committee on Information and Technology ("COIT") through the City Representative before operating and/or entering into a contract with a third party to operate drones. The term "drone" means an unmanned aircraft flown by a pilot via a ground control system or flown autonomously or flown semi-autonomously through use of communication links, an on-board computer, and/or other equipment. The SFPUC Drone Policy and Certification page are available at: https://sfpuc.sharefile.com/d-scd834b4f709449e9 and https://sfpuc.sharefile.com/d-sa122718c10b49f98.

1. The authorized use of drones is limited to SFPUC lands, rights of way, and facilities (collectively, "SFPUC Property"). There are only three authorized uses under the policy:

   a. Construction Management: Examples include inspection of project sites for contract and environmental compliance

   b. Environmental Monitoring and Documentation: Examples include monitoring of vegetation type and health, wildlife, and streams and reservoirs

   c. Inspections: Examples include conducting surveys and assessments of SFPUC properties and assets

B. Contractor's use of drones outside the SFPUC Property will require additional approval from the appropriate authority, City Department, and/or San Francisco's Committee on Information and Technology ("COIT"). Refer to the City and County of San Francisco's Citywide Employee Drone Policy: https://sfpuc.sharefile.com/d-sa650ee1c0064806a.

2.18 CONSIDERATION OF SALARY HISTORY

Contractor shall comply with San Francisco Administrative Code Chapter 12K, the Consideration of Salary History Ordinance or "Pay Parity Act." Contractor is prohibited from considering current or past salary of an applicant in determining whether to hire the applicant or what salary to offer the applicant to the extent that such applicant is applying for employment to be performed on this Agreement or in furtherance of this Agreement, and whose application, in whole or part, will be solicited, received, processed or considered, whether or not through an interview, in the City or on City property. The ordinance also prohibits employers from (1) asking such applicants about their current or past salary or (2) disclosing a current or former employee's salary history without that employee's authorization unless the salary history is publicly available. Contractor is subject to the enforcement and penalty provisions in Chapter 12K. Information about and the text of Chapter 12K is available on the web at https://sf.gov/information/understanding-consideration-salary-history-ordinance.

Contractor is required to comply with all of the applicable provisions of 12K, irrespective of the listing of obligations in this Section.

ARTICLE 3– REQUIREMENTS FOR CONSTRUCTION WORK TAKING PLACE WITHIN THE 47 SQUARE MILES OF THE CITY AND COUNTY OF SAN FRANCISCO

3.01 SUMMARY

A This Article includes special project conditions to comply with City regulations affecting construction Work at the Site.

B. ***[Manual Insert – Include project-specific reference(s) to other contract documents (primarily Division 01) that include related information such as Environmental Procedures (Section 01 35 43) and Traffic Control (Section 01 55 26).]***

3.02 CONSTRUCTION NOISE REQUIREMENTS

A. Contractor shall comply with the City's Noise Control Ordinance (article 29 of the San Francisco Police Code, Ordinance No. 278-08), a portion of which is appended to this Section as **Appendix A**.

1. Contractor shall be responsible for fines or violations pertaining to these ordinances, at no cost to the City.

2. Provide advance notice to residents and affected businesses in the area of the Site of times, dates and location of construction activities.

3. Coordinate and schedule Contractor's construction operations to conform to all City requirements and restrictions.

4. Contractor shall implement mitigation controls to ensure compliance with the construction noise levels allowed. The maximum noise level from any powered construction equipment shall not be greater than 80dBA at 100 feet. This translates to 86dBA at 50 feet (dual units not applicable, as these are specific field and instrument measurements).

B. Use appropriate construction methods and equipment and furnish and install acoustical barriers so that noise emanating from the construction will not exceed noise levels pursuant to the City's Noise Control Ordinance.

1. Muffle and shield intakes and exhausts, shroud or shield impact tools, as feasible.

2. Use electric-powered rather than diesel-powered construction equipment.

3. Enclose equipment such as large compressors, generators, and large de-

watering pumps at a minimum in one-inch-thickness plywood sheds.

4. Equip pavement breakers and jackhammers with acoustically attenuating shield or shrouds.

5. Select haul routes that minimize intrusion to residential areas.

6. Select construction processes and techniques that create the lowest noise levels.

C. Prepare a written Noise Control Program to mitigate the construction noise impacts and to comply with the noise criteria specified herein that addresses the method of construction, the equipment to be used, and acoustical treatments as necessary. Contractor shall implement the Program, keep a copy of the Program at the Site, and submit that copy to the City Representative upon request.

D. The City, at its own discretion, will monitor construction noise as part of the environmental monitoring process. When noise levels exceed the noise limits set forth in article 29 of the San Francisco Police Code, Contractor shall stop work and use alternate methods and equipment, or place restrictions on construction operations to further limit the noise as directed by the City.

3.03 NIGHT AND WEEKEND NOISE REQUIREMENTS

A. Except as specifically set forth in these Specifications, Contractor shall not perform work between the hours of 8:00 p.m. and 7:00 a.m. of the following day if the noise level created thereby is in excess of the ambient noise level by 5 dBA at the nearest property line, unless a noise permit therefor has been obtained pursuant to the Police Code section 2908.

1. Contractor must apply for City noise permits through the City Representative at least 15 business days in advance of night (i.e., between 8:00 p.m. and 7:00 a.m.), weekend, and holiday work. The requirements of the Contract Documents, including safety requirements, shall apply for all night, weekend, and holiday work performed.

2. If Contractor is directed in the Contract Documents or by special written notice from the City Representative to perform any part of the work between the hours of 8 p.m. and 7 a.m., or on weekends or holidays, the Contractor must obtain and comply with a City noise permit prior to starting any work. The noise permit shall be obtained from and approved by Bureau of Street Use and Mapping, 49 South Van Ness Avenue, Suite 300, San Francisco, CA 94103, telephone (628) 271-2000.

3. Refer to Section 00 72 00 for definition of Regular Working Hours.

3.04 REQUIREMENTS FOR USING WATER FOR CONSTRUCTION

A. Contractor shall comply with Article 21 of the San Francisco Public Works Code, which restricts the use of potable water for soil compaction and dust control activities to the extent not directly in conflict with any applicable federal, state, or local law.

B. At this time, recycled water is not available from San Francisco Public Utilities Commission (SFPUC) Wastewater Enterprise (WWE). If Contractor wants to use potable water for soil compaction or dust control activities, Contractor must request permission from SFPUC Water Resources Recycled Water Program Administrator, Annahita Fallah (recycledwater@sfwater.org), and provide any information requested regarding the unavailability of recycled water, well water, or groundwater within 10 miles of the project site, and follow the requirements set forth in subparagraph 3.04C.

C. Potable Water:

1. Contractors will be directed to the SFPUC, Customer Service Bureau (CSB), at 525 Golden Gate Avenue, San Francisco, to complete a potable hydrant meter application. Once the application has been completed and approved, CSB will provide Contractor with a receipt.

2. Contractor shall pay the costs of permit fees, connection fees, meters, and all water usage furnished by the SFPUC under the established water service account. The City will not reimburse these costs.

3. Contractor shall bring the receipt as proof of payment to the City Distribution Division (CDD) at 1990 Newcomb Street, San Francisco, to collect the hydrant meter. Contractor shall bring the meter to CDD monthly for readings and payments.

3.05 AIR QUALITY REQUIREMENTS

A. The Contractor shall provide dust control measures during construction in accordance with the requirements of the Contract Documents. Prior to starting Work at the site, the Contractor shall prepare a Dust Control Program to minimize potential public health impacts associated with visible dust emissions and air quality pollutants. Said dust control program shall include measures to minimize impacts to sensitive receptors associated with exposure to respirable nuisance dust (PM10) and the following requirements to achieve a goal of "No Visible Emissions." The Contractor shall implement the Dust Control Program for the project duration, maintain a copy of the Program at the project site, and submit the copy to the City Representative upon request.

B. Contractor shall comply with the following requirements in accordance with San Francisco Department of Public Works Dust Control Order (DPW Order

No. 171378). Failure to comply with DPW Order No. 171378 shall subject Contractor to fines of $1,000 per day for each day a violation is not corrected.

1. Minimize dust generation to reduce health risks to workers and the public.

2. Mist the immediate demolition area with a water spray to prevent airborne dust particles.

3. Perform continuous water spraying during dust generating activities. Mist or spray in such a way as to prevent puddling or generation of runoff.

4. Use dust enclosures, curtains, and dust collectors as necessary to control dust. The City may request dust scrubbers installation during demolition to minimize dust migration in the project site's occupied areas.

5. Minimize the amount of demolition debris stored at the Site. Remove demolition debris, with the exception of hazardous materials or suspected hazardous materials, from the Site no later than the end of each workday.

6. If hazardous materials or suspected hazardous materials are stored on Site, store such materials in accordance with all applicable Cal/EPA regulations, including providing storage in proper containers and protection from exposure to the elements. Remove such materials from the Site as soon as possible for disposal or recycling in accordance with applicable laws and regulations.

7. Keep the Site and adjacent areas clean and perform wet sweeping at the end of each shift.

8. Load haul trucks, hauling debris, soils, sand, or other such materials so that the material does not extend above the walls or back of the truck bed. Wet before covering and tightly cover the surface of each load before the haul truck leaves the loading area.

9. Clean up spillage on City streets, whether directly or indirectly caused by Contractor's operations.

10. Stockpiles soil, sand, and other materials shall be covered and protected at the end of the shift.

C. Contractor shall comply with the requirements of the Bay Area Air Quality Management District (BAAQMD) regulation 6 (for particulate matter and visible emissions), regulation 7 "Odorous Substances," regulation 11 "Hazardous Pollutants," and the California Health and Safety Code division 26 "Air Resource," chapter 3 "Emission Limitations," section 41700 "Prohibited Conduct," and related regulations. Notify the BAAQMD 10 working days prior to commencing demolition or hazardous materials abatement work.

1. Such notification shall include the names and addresses of operations and persons responsible; description and location of the structure to be demolished or altered including size, age and prior use, and the approximate amount of friable asbestos; scheduled starting and completion dates of demolition or abatement; nature of planned work and methods to be employed; procedures to be employed to meet BAAQMD requirements; and the name and location of the disposal site.

2. The BBAQMD randomly inspects removal operations and will respond to any complaints received. Contractor shall cooperate and facilitate all BAAQMD authorized inspections.

D. Contractor shall implement specific air pollution controls to reduce exhaust emissions of particulate matter and other pollutants from construction and related equipment, to a less significant level, by:

1. Preventing the accumulation of toxic concentrations of chemicals

2. Preventing harmful or obnoxious dispersal of pollutants into the atmosphere

3. Limiting vehicle speed limit on unpaved roads to 15 miles per hour (mph)

4. Prohibiting idling motors when equipment is not in use or when trucks are waiting in queues. The idling time of all construction equipment used at the site shall not exceed 5 minutes.

5. Limiting the hours of operation of heavy-duty equipment and amount of equipment in use to what is needed

6. Properly tuning and maintaining all equipment in accordance with the manufacturer’s specifications

7. When feasible, using alternative fuel or electrical construction equipment at the project site

8. Loading haul trucks, excavated materials, hauling debris, soils, sand or other such materials so that the material does not extend above the walls or back of the truck bed. Wet before covering and tightly cover the surface of each load before the haul truck leaves the loading area.

9. Cleaning up spillage on City streets promptly, whether directly or indirectly caused by Contractor's operations

10. Storing stockpiles of excavated materials, backfill, import materials, sand, gravel, road base and soil in staging areas approved by the City, and completely covering such materials with 10 mil (0.01 inch) polyethylene

plastic or equivalent tarp that is braced down and secured daily at the end of the shift. The Contractor shall maintain the covers throughout their use.

11. During all excavation and dirt moving activities, at least three times per shift per day, and once at the end of the shift as directed by the City, wet sweep/vacuum the streets, sidewalks, paths and intersections where work is in progress.

12. For wet sweeping use a vacuum sweeper vehicle with sufficient suction to ensure that the vehicle does not blow dust towards neighboring businesses or residences. The City will evaluate the effectiveness of the Contractor's vacuum sweeper and, if necessary, will require the Contractor to provide a more powerful and effective vehicle.

13. Vehicles entering or exiting construction areas shall travel at a speed of no more than 15 mph to minimize dust emissions and follow the approved traffic routes.

14. Wheel washers shall be installed and used to clean truck and equipment tires leaving the construction site. If wheel washers cannot be installed, tires and spoils trucks shall be washed off before they re-enter City streets to minimize deposition of dust-causing materials.

15. Wet down areas around soil improvement operations, visibly dry disturbed soil surface areas and visibly dry disturbed unpaved driveways at least three (3) times per shift per day or more as needed as directed by the City.

3.06 EXCAVATION REQUIREMENTS

A. Contractor shall comply with the regulations of California State Standard, CCR Title 8, Chapter 4, Section 1541, regarding coordination and safety of excavations near subsurface installations. A portion of Section 1541 is appended to this Section as **Appendix B**.

B. Contractor shall obtain, review and comply with article 2.4, "Excavation in the Public Right of Way," of the San Francisco Public Works Code, as currently amended, and applicable regulations of the Department of Public Works for excavating and restoring streets in the public right of way. Except for excavations specifically exempted by said article or by written waiver granted by the Department of Public Works, no excavation shall be performed in the public right of way under the jurisdiction of the Department of Public Works without a valid excavation permit issued by the San Francisco Department of Public Works, Bureau of Street-use and Mapping, telephone (628) 271-2000.

1. Refer to the General Conditions (Section 00 72 00) as amended in the Supplementary Conditions (Section 00 73 00) for permit procurement responsibilities.

2. Keep copies of the excavation permit available at the Site for inspection by the City upon request.

3. Excavation permits are not required for excavations completed within 24 hours to install parking meters, street lights, street trees, traffic signs, traffic signals, utility poles or to repair utility boxes in sidewalks; or excavations performed for the sole purpose of repairing sidewalks.

4. For emergency excavations, necessary for protection of life or property, immediately notify the Department of Public Works, Bureau of Street-use and Mapping, and apply for an emergency permit within 4 hours after the Department offices first open.

5. Refer to the manual "Regulations for Excavating and Restoring Streets in San Francisco," Department of Public Works, Bureau of Street-use and Mapping, for complete information about excavation code requirements. Copies of the manual may be purchased at Bureau of Street-use and Mapping, 49 South Van Ness Avenue, Suite 300, San Francisco, CA 94103, telephone (628) 271-2000.

6. Coordinate with the City and other contractors working at the Site to minimize impacts of the excavation work on the community and local businesses.

C. Contractor shall provide proper public notices prior to commencing excavations in accordance with article 2.4 of the San Francisco Public Works Code. Such notices shall include the name, address, and 24-hour telephone number of Contractor's representative who will provide information to, and receive complaints from, the public concerning the excavation.

1. For excavations completed and restored in 2 to 14 days, post and maintain notices every 100 feet along the block of excavation work at least 72 hours prior to starting excavation.

2. For excavations completed and restored in 15 days or longer, provide written notice delivered by U.S. mail to each property owner affected by the excavation at least 30 days prior to starting excavation. Additionally, post and maintain notices every 100 feet and deliver written notices to each dwelling unit along the block of excavation work at least 10 days but not more than 15 days prior to starting excavation.

3. For emergency excavation post and maintain notices every 100 feet along the block of excavation work during the excavation work.

D. No excavation shall be performed outside the boundaries, times, descriptions, or methods set forth on the approved permit; no excavation shall be longer than 1,200 feet in length at any time without prior written approval of the City.

1. Secure permit extension prior to expiration date in the event of delays in excavation work.

2. Should such delays be caused by the City Contractor will be granted an extension of Contract Time or adjustment of Contract Sum as provided in Paragraph 7.02 of the General Conditions.

E. Observe regulations concerning excavation sites including the following:

1. Cover open excavations with steel plates ramped to street grade or provide other means of protection acceptable to the Department of Public Works.

2. Clean the Site of loose dirt and debris and remove excavated material from the Site at the end of each work day; comply with DPW Order No. 171378 (refer to Paragraph 3.05B, above).

3. Materials and equipment to be used for excavation work within 7 calendar days may be stored at the Site, provided that fill material, sand, aggregate, and asphalt-coated material shall be stored only in covered, locked containers and provided that such storage complies with the City's traffic rules and regulations

4. Conform to the requirements of the Specifications for handling, removal, and disposal of hazardous materials.

F. Restore excavated street or sidewalk pavement in accordance with the requirements of the Specifications or the applicable requirements of the DPW Standard Specifications and Standard Plans (refer to Division 01 for reference standards) to the extent not in conflict with the Specifications. Comply with the following additional San Francisco Public Works Code requirements:

1. Restore trenches and pavement to a constant width equal to the widest section of the excavation, but not exceeding 13 feet.

2. Backfill excavation within 72 hours of completing related construction.

3. Replace pavement base within 72 hours of backfilling excavation.

4. Complete finished pavement within 72 hours of replacing pavement base.

5. Correct deficiencies in the restoration respecting timing or manner specified for the above items at no additional cost to the City within 24 hours of notification by the City.

6. Should Contractor fail to timely restore, correct or repair deficiencies, the City Representative will complete or cause to be completed such restoration, correction or repair deficiencies, and the completion costs will be deducted from monies due Contractor.

3.07 REQUIREMENTS FOR PROTECTION OF THE SEWER SYSTEM

A. Contractor shall comply with Article 4.2 of the Public Works Code. Refer to Article 1 C., above, for an internet link to this text. The provisions of Article 4.2 of the Public Works Code are incorporated herein by reference and made part of this Agreement as though fully set forth herein.

1. Wastewater, i.e., any waste liquid/semi-liquid except stormwater; can include potable water

   a. Wastewater which is transferred from the Site during this Project shall meet the pre-treatment standards of the San Francisco Municipal Code, section 123, Industrial Waste Ordinance #19-92 and DPW Order No. 158170 prior to discharge into the City's sewage system. The text of these regulations are appended to this Section as **Appendix C and Appendix D**, respectively. Contractor is to obtain a batch discharge permit as specified in Sub-subparagraph d., below.

   b. Should wastewater become contaminated due to Contractor's operations all costs of satisfactory remediation and disposal shall be at no cost to the City. Such costs shall include, but not be limited to, all redesign, reconstruction and pre-treatment costs necessary to satisfy the requirements of the Industrial Waste Ordinance #19-92, and DPW Order No. 158170.

   c. Should the existing wastewater be contaminated, or should it be uncontaminated but subsequently become contaminated due to conditions other than Contractor's operations, a Change Order will be issued as provided in Article 7 of Section 00 72 00 for additional costs or time extension will be granted as provided in Article 8 of Section 00 72 00 to pretreat the contaminated water prior to routing the flow into the sewer system or other approved disposal at the direction of the City.

   d. Contractor shall be responsible for obtaining and paying for all water discharge permits and for paying all sewer service charges, penalties and other incidental fees and expenses resulting from discharging wastewater into the City's sewerage system by Contractor's operations.

      San Francisco Public Utilities Commission
      Wastewater Enterprise, Collection System Division
      3801 3rd Street, Suite 600
      San Francisco, CA 94124
      Telephone (415) 695-7321.

2. Within the area of work, Contractor shall employ Best Management Practices (BMPs) to safeguard the sewer system. Refer to https://sfpuc.org/programs/pretreatment-program/construction-site-runoff.

Contractor shall be responsible for any fines imposed (e.g., up to $1,000/day, $2,000/day, $25,000/day or higher) for any violations caused by the Contractor per Paragraph 3.21 of the General Conditions (Section 00 72 00).

3. Contractor shall obtain a Construction Site Runoff Control Permit ("Permit") and comply with all Permit requirements. Refer to web link in the immediate preceding Subparagraph and refer to the requirements of Subparagraph A., above. As of early 2014, there is no charge for issuance of this Permit but Contractor shall complete the application, including all required documents, for this Permit at its own expense and shall submit the complete application to the City Representative in accordance with Section 01 33 00. The complete application must be submitted within 30 calendar days after issuance of the Notice to Proceed. The City Representative will return the application to the Contractor after the City Representative determines the tentative status of the submittal to be "No Action Taken," "No Exceptions Taken," or "Make Corrections Noted." Contractor shall then submit the application to the Permit issuer. Contractor shall be responsible for any Permit application, review, issuance, and inspection fees. For this submittal, Contractor shall allow 28 calendar days total for the City Representative's and Permit issuer's review. Upon Permit issuance, Contractor shall provide the City Representative a copy of the Permit and documents associated with its conditions (e.g., Erosion and Sediment Control Plan). Contractor shall be responsible for complying with the requirements of the Permit and shall be responsible for payment of all fines imposed due to any of its violations of the requirements of the Permit or violations of Article 4.2 of the Public Works Code or as specified in Paragraph 3.21 of the General Conditions.

3.08 CLEAN CONSTRUCTION REQUIREMENTS ON MAJOR CONSTRUCTION PROJECTS

A. Contractor agrees to comply fully with and be bound by the Clean Construction requirements set forth in Section 6.25 of the Administrative Code and Chapter 25 of the Environment Code. The provisions of Section 6.25 and Chapter 25 are incorporated herein by reference and made a part of this Agreement as though fully set forth. If the Project meets Environment Code Section 2504(a) and is located within the Air Pollutant Exposure Zone and 1,000 feet of Sensitive Uses, as these terms are defined in Environment Code Section 2503, refer to Section 01 35 48, Clean Construction Requirements, for additional requirements, including, but not limited to, required reports that the Contractor must submit to the City Representative.

B. Contractor may seek waivers from the Clean Construction requirements as set forth in Section 6.25(b)(3) of the Administrative Code and Section 25.7 of the Environment Code.

C. By entering into the Agreement, Contractor and City agree that if Contractor uses off-road equipment and/or off-road engines in violation of the Clean Construction requirements set forth in Section 6.25 and Chapter 25, the City will suffer actual damages that will be impractical or extremely difficult to determine. Accordingly, Contractor and the City agree that Contractor shall pay the City the amount of $100 per day per each piece of off-road equipment and each off-road engine used to complete Work on the Project in violation of the Clean Construction requirements. Such amount shall not be considered a penalty, but rather agreed monetary damages sustained by City because of Contractor's failure to comply with the Clean Construction requirements.

3.09 CONSTRUCTION BARRICADE REQUIREMENTS

A. Contractor shall comply with San Francisco Department of Public Work's Guidelines For the Placement of Barricades at Construction Sites (DPW Order No. 167840), which are appended to this Section as **Appendix E.**

ARTICLE 4 – CITY/COUNTY NON-STATUTORY REQUIREMENTS

4.01 GENERAL

A. ***[Manual Insert – For projects located inside and outside of CCSF, reference and attach agreements (either here or attached to Section 00 73 00/APA) as appropriate. Include free-form text as necessary to clarify Contractor's responsibilities under applicable agreements. Simply attaching an MOA or other agreement may not be sufficient to clearly put the Contractor/Bidder on notice as to Contractor vs. City responsibilities. If this Subparagraph A will not be used, type "NOT USED" instead of deleting this Article.]***

END OF SECTION

APPENDIX A: NOISE CONTROL ORDINANCE

Police Code Section 2901. DEFINITIONS.

(j) "Powered construction equipment" means any tools, machinery, or equipment used in connection with construction operations which can be driven by energy in any form other than manpower, including all types of motor vehicles when used in the construction process of any construction site, regardless of whether such construction site be located on-highway or off-highway, and further including all helicopters or other aircraft when used in the construction process except as may be preempted for regulation by State or Federal law.

SF Police Code Section 2907. CONSTRUCTION EQUIPMENT.

(a) Except as provided for in Subsections (b), (c), and (d) hereof, it shall be unlawful for any person to operate any powered construction equipment if the operation of such equipment emits noise at a level in excess of 80 dBA when measured at a distance of 100 feet from such equipment, or an equivalent sound level at some other convenient distance.

(b) The provisions of Subsections (a) of this Section shall not be applicable to impact tools and equipment, provided that such impact tools and equipment shall have intake and exhaust mufflers recommended by the manufacturers thereof and approved by the Director of Public Works or the Director of Building Inspection as best accomplishing maximum noise attenuation, and that pavement breakers and jackhammers shall also be equipped with acoustically attenuating shields or shrouds recommended by the manufacturers thereof and approved by the Director of Public Works or the Director of Building Inspection as best accomplishing maximum noise attenuation.

(c) The provisions of Subsection (a) of this Section shall not be applicable to construction equipment used in connection with emergency work.

(d) Helicopters shall not be used for construction purposes for more than two hours in any single day or more than four hours in any single week.

Police Code Section 2908. CONSTRUCTION WORK AT NIGHT.

It shall be unlawful for any person, between the hours of 8:00 p.m. of any day and 7:00 a.m. of the following day to erect, construct, demolish, excavate for, alter or repair any building or structure if the noise level created thereby is in excess of the ambient noise level by 5 dBA at the nearest property plane, unless a special permit therefor has been applied for and granted by the Director of Public Works or the Director of Building Inspection. In granting such special permit the Director of Public Works or the Director of Building Inspection shall consider: if construction noise in the vicinity of the proposed work site would be less objectionable at night than during daytime because of different population levels or different neighboring activities if obstruction and interference with traffic, particularly on streets of major importance, would be less objectionable at night than during daytime; if the kind of work to be performed emits noises at such a low level as to not cause significant disturbance in the vicinity of the work site, if the neighborhood of the proposed work site is primarily residential in character wherein sleep could be disturbed: if great economic hardship would occur if the work were spread over a longer timers if the work will abate or prevent hazard to life or property; and if the proposed night work is in the general public interest. The Director of Public Works or the Director of Building Inspection shall prescribe such conditions, working times, types of construction equipment to be used, and permissible noise emissions, as required in the public interest.

The provisions of this Section shall not be applicable to emergency work.

END OF SECTION

APPENDIX B: EXCAVATION, GENERAL REQUIREMENTS (CCR TITLE 8, CHAPTER 4, §1541)

§1541. General Requirements.

(a) Surface encumbrances. All surface encumbrances that are located so as to create a hazard to employees shall be removed or supported, as necessary, to safeguard employees.

(b) Subsurface installations.

(1) The approximate location of subsurface installations, such as sewer, telephone, fuel, electric, water lines, or any other subsurface installations that reasonably may be expected to be encountered during excavation work, shall be determined by the excavator prior to opening an excavation.

(A) Excavation shall not commence until:

1. The excavation area has been marked as specified in Government Code Section 4216.2 by the excavator; and
2. The excavator has received a positive response from all known owner/operators of subsurface installations within the boundaries of the proposed project; those responses confirm that the owner/operators have located their installations, and those responses either advise the excavator of those locations or advise the excavator that the owner/operator does not operate a subsurface installation that would be affected by the proposed excavation.

(B) When the excavation is proposed within 10 feet of a high priority subsurface installation, the excavator shall be notified by the facility owner/operator of the existence of the high priority subsurface installation before the legal excavation start date and time in accordance with Government Code Section 4216.2(a), and an onsite meeting involving the excavator and the subsurface installation owner/operator's representative shall be scheduled by the excavator and the owner/operator at a mutually agreed on time to determine the action or activities required to verify the location of such installations. High priority subsurface installations are high pressure natural gas pipelines with normal operating pressures greater than 415 kPA gauge (60 p.s.i.g), petroleum pipelines, pressurized sewage pipelines, conductors or cables that have a potential to ground of 60,000 volts or more, or hazardous materials pipelines that are potentially hazardous to employees, or the public, if damaged.

(C) Only qualified persons shall perform subsurface installation locating activities, and all such activities shall be performed in accordance with this section and Government Code Sections 4216 through 4216.9. Persons who complete a training program in accordance with the requirements of Section 1509, Injury and Illness Prevention Program (IIPP), that meets the minimum training guidelines and practices of the Common Ground Alliance (CGA) Best Practices, Version 3.0, published March 2006, or the standards of the National Utility Locating Contractors Association (NULCA), Standard 101: Professional Competence Standards for Locating Technicians, 2001, First Edition, which are incorporated by reference, shall be deemed qualified for the purpose of this section.

(D) Employees who are involved in the excavation operation and exposed to excavation operation hazards shall be trained in the excavator notification and excavation practices required by this section and Government Code Sections 4216 through 4216.9.

(2) All Regional Notification Centers as defined by Government Code Section 4216(h)(j) in the area involved and all known owners of subsurface facilities in the area who are not members of a Notification Center shall be advised of the proposed work at least 2 working days prior to the start of any digging or excavation work. EXCEPTION: Repair work to subsurface facilities done in response to an emergency as defined in Government Code Section 4216(d).

(3) When excavation operations approach the approximate location of subsurface installations, the exact location of the installations shall be determined by safe and acceptable means that will prevent damage to the subsurface installation, as provided by Government Code Section 4216.4.

(4) While the excavation is open, subsurface installations shall be protected, supported, or removed as necessary to safeguard employees.

(5) An excavator discovering or causing damages to a subsurface installation shall immediately notify the facility owner/operator or contact the Regional Notification Center to obtain subsurface installation operator contact information immediately after which the excavator shall notify the facility operator. All breaks, leaks, nicks, dents, gouges, grooves, or other damages to an installation's lines, conduits, coatings or cathodic protection shall be reported to the subsurface installation operator. If damage to a high priority subsurface installation results in the escape of any flammable, toxic, or corrosive gas or liquid or endangers life, health or property, the excavator responsible shall immediately notify 911, or if 911 is unavailable, the appropriate emergency response personnel having jurisdiction. The facility owner/operator shall also be contacted.

NOTE: The terms excavator and operator as used in Section 1541(b) shall be as defined in Government Code Section 4216(c) and (h) respectively. The term "owner/operator" means an operator as the term "operator" is defined in Government Code Section 4216(h).

*****

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code; and Section 4216, Government Code.

END OF SECTION

APPENDIX C: INDUSTRIAL WASTE ORDINANCE #19-92
(Refer to Amended Article 4.1, San Francisco Municipal Code Sections 118-124)

Sec. 123. Limitations and Prohibitions.

(a) Any grab sample of the Discharger's Wastewater shall not at any time exceed any of the following numerical limitations:

	Pollutant Parameter	Limits
(1)	pH	6.0 min.; 9.5 max.
(2)	Dissolved Sulfides	0.5 mg/l
(3)	Temperature (except where higher temperatures are required by law)	125 degrees F (52 degrees C)
(4)	Hydrocarbon Oil and Grease	100 mg/l

(b) Any composite sample representative of the total Discharge of the Wastewater Discharge generated over a production week shall not exceed the following numerical limitation:

	Pollutant Parameter	Limits
(1)	Total Recoverable Oil and Grease	300 mg/l

Representative composite Total Recoverable Oil and Grease samples shall be composited by grab sampling, as required in federal regulations at 40 CFR Part 403 (1990), which are incorporated by reference in this Article.

(c) In addition to the provisions of this Article, all Dischargers must comply with all requirements set forth in federal Categorical Pretreatment Standards and other applicable federal regulatory standards, applicable state orders and water quality control regulations, sewage discharge permits and orders issued to the City by federal and state agencies, federal and state pretreatment program approval conditions, local discharge limitations and regulations promulgated by the Director and the City, and any other applicable requirement regulating the Discharge of Wastewater into the Sewerage System. The Director is authorized to develop and enforce such local limitations as he or she deems necessary for the City's compliance with state and federal laws and requirements and the enforcement of this Article.

(d) Discharge of Wastewater containing radioactive materials is permitted only if the following conditions are satisfied:
   (1) The Discharger obtains a Permit from the Director for the discharge of radioactive materials.
   (2) The Discharger is authorized to use radioactive materials by the Nuclear Regulatory Commission or other governmental agency empowered to regulate the use of radioactive materials; and
   (3) The radioactive material is Discharged in strict conformity with all Nuclear Regulatory Commission or other governmental agency requirements.

(e) No person shall discharge, deposit, or throw, or cause, allow or permit to be discharged, deposited or thrown into the City's sewage system any substance of any kind whatever, including oxygen demanding Pollutants, that may or will in any manner cause Interference or

Pass Through, obstruct or damage the Sewerage System, cause a nuisance, interfere with the proper operation, repair or maintenance of the sewerage system, interfere with the proper operation, repair or maintenance of a reclaimed water production or distribution facility, create difficulty for any workers to repair or maintain any part of the Sewerage System, or directly or indirectly cause a violation of the City's federal or state sewage discharge permits or any other requirement applicable to the City. Such substances include but are not limited to the following:

(1) Ashes, cinders, sand, gravel, dirt, bark, leaves, grass cuttings and straw, metals, glass, ceramics and plastics, or any other solid or viscous substance capable of causing obstruction to the flow in sewers, or that will not be carried freely under the flow conditions normally prevailing in the City's Sewerage System;

(2) Any flammable or explosive substances;

(3) Garbage, excepting properly ground garbage discharged in accordance with this Article, from dwellings and restaurants or other establishments engaged in the preparation of foods and beverages;

(4) Any toxic or noxious or malodorous substance which either singly or by interaction with other wastes may or will prevent maintenance of Sewerage System or create a nuisance or hazard to the safety of the public or City employees.

(5) Any Bioaccumulative Toxic Substance that exceeds the Soluble Threshold Limit Concentration (STLC).

(6) Any Wastewater, in temperature or quantity, which will cause the temperature of influent to exceed 104º (40ºC) at the point of introduction to any City Wastewater treatment plant.

(7) Any liquids, solids or gases or any Discharge that may cause damage or harm to any reclaimed water facility, or that may limit or prevent any use of reclaimed water authorized by Title 22 of the CCR.

(f) No person shall discharge, without a Permit, any Pollutants, except stormwater, directly or indirectly into a manhole, catch basin, or other opening in the sewerage system other than through an approved side sewer.

(g) No discharger shall increase the use of process water, in any other way, attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the requirements of this Article.

(h) No person shall discharge groundwater or water from sumps or dewatering facilities into the sewerage system without a permit. An application for a permit pursuant to this subsection shall be submitted to the Director no later than 45 days prior to the proposed commencement of the discharge. Each permit for groundwater discharge shall contain appropriate discharge standards and any other appropriate requirements that must be achieved before discharge into the sewerage system may commence. Such discharges shall be subject to payment of sewer service charges in accordance with the provisions of applicable City laws. The Director may require the discharger to install and maintain meters at the discharger's expense to measure the volume of the discharge.

(i) No person shall discharge wastewater associated with groundwater cleanup or remediation plans without first obtaining a permit. An application for a permit pursuant to this subsection shall be submitted to the Director no later than 45 days prior to the proposed commencement of the discharge. A permit may be issued only if an effective pretreatment system on the process stream is maintained and operated. Each permit for such discharge shall contain appropriate discharge standards based on this Article and reports or data provided by the discharger, as well as any other appropriate requirements that must be achieved at the time the discharge commences. Such discharges shall be subject to payment of sewer service charges in accordance with the provisions of applicable City laws. The Director may require the

discharger to install and maintain meters at the discharger's expense to measure the volume of the discharge. The Director may require that such dischargers shall indemnify and hold harmless the City from any and all costs, claims, damages, fines, remediation costs, losses and other expenses arising from the discharge into the sewerage system.

(j) The discharge of wastewater associated with asbestos abatement operations is authorized without a permit, provided that the wastewater has been pretreated through a system that provides for removal of waterborne asbestos. (Added by Ord. 19-92, App.,1/23/92.)

END OF SECTION

APPENDIX D: INDUSTRIAL WASTE DISCHAGE LIMITS INTO CITY'S SEWERAGE SYSTEM

(San Francisco Department of Public Works Oder No. 158170)

A. This order is being adopted in compliance with the requirements of the Federal Clean Water Act, as amended, and attendant Environmental Protection Agency regulations. Industrial waste discharge limits on wastewater discharges into the City's sewerage system have been proposed for adoption pursuant on this Order.

B. Pursuant to Chapter X (Public Works Code) of Part II of the San Francisco Municipal Code, Article 4.1, the Director of Public Works hereby adopts the following provisions:

1. The characteristics of any 24 hour composite sample representative of a wastewater discharge generated over that period of time shall not exceed the following concentration-based numerical limits:

Pollutant/Pollutant Parameter	Limit (mg/l)
Arsenic (As) (as Total)	4.0
Cadmium (Cd) (as Total)	0.5
Chromium (Cr) (as Total)	5.0
Copper (Cu) (as Total)	4.0
Lead (Pb) (as Total)	1.5
Mercury (Hg) (as Total)	0.05
Nickel (Ni) (as Total)	2.0
Silver (Ag) (as Total)	0.6
Zinc (Zn) (as Total)	7.0
Phenol	23.0
Cyanide (CN) (as Total)	1.0

2. These numerical limits shall apply at the point of wastewater discharge into the sewerage system of the City and County of San Francisco with the proviso that no discharger shall increase the use of process water or, in any other way attempt to dilute a discharge as a partial or complete substitute for adequate wastewater management to achieve compliance with the requirements of this Order.
3. On an individual discharger basis, the Director of Public Works may consider inclusion of local limits greater than those specified in this Order provided that the two following conditions are met:
   a. The discharger's inability to meet concentration-based limits specified in this Order is caused solely by implementation of a significant water reclamation or water reuse program at the discharger facility, and
   b. The amended concentration-based limit does not result in an increase in the mass emission of that pollutant from the discharger facility.
4. In addition to any other provision of this Order, all dischargers must comply with all the requirements of Chapter X (Public Works Code) of Part II of the San Francisco Municipal Code, Article 4.1 (Industrial Waste Ordinance #19-92).
5. All of the pollutants/pollutant parameters specified above are defined in the Federal regulations at 40 CFR Part 136 (1991).
6. This Order rescinds City and County of San Francisco Department of Public Works Order No. 104407, adopted March 3, 1976.

7. The provisions of this Order are effective immediately.

END OF SECTION

APPENDIX E: GUIDELINES FOR PLACEMENT OF BARRICADES AT CONSTRUCTION SITES

DEPARTMENT OF PUBLIC WORKS GUIDELINES
For the Placement of Barricades at Construction Sites
ORDER NO. 167,840

GUIDELINES

It is the policy of the Department of Public Works that a safe and accessible path of travel be provided for all pedestrians, including those with disabilities, around and/or through construction sites.

When erecting barricades, the Contractor shall be conscious of the special needs of pedestrians with physical disabilities. Discretion is given to the Contractor to provide protection for pedestrians consistent with all local, state, and federal codes, including the Americans with Disabilities Act and the California Building Code, Title 24.

It is recognized that there are various types of construction activities, including both short-term and long-term projects. Some barricading systems are more appropriate for certain types of construction than others.

The following barricading systems described in the attached document are examples of systems which can be used to provide a safe and accessible path of-travel around and through a construction site. They are not intended to be all-inclusive. Any barricading system meeting accessibility standards may be considered.

BARRICADING METHODS AND MATERIALS

A-Frames

When using A-frames for defining a path-of-travel, not barricading trenches from vehicular travel, A-frames shall be placed end to end (no spacing between barricade allowed). This will help a person who is blind negotiate a safe path-of-travel. Openings between A-frames will give confusing signals to a person who is blind and using a "walking cane" or "white cane". If using A-frames, all must be connected in a way to ensure that individual A-frames do not move out of place or separate. As an example of an acceptable connection, A-frames may be connected by 2 x 4's that are attached to the base of the barricade system.

Barrier Caution Tape

Caution tape does not provide an adequate barricade and cannot be used to delineate path-of-travel (but can be used in other areas to highlight danger. It can be used in conjunction with barricades such as A-frames).

Fencing Material

When using fencing material (e.g., chain link, plastic, etc.) the bottom 3 inches minimum should be solid. This base will act as a guide to blind pedestrians using canes. Walking canes used by blind pedestrians could get caught in fencing. A safe design can be achieved by attaching a solid material

(e.g., wood, header bender board, sheet metal, solid rod or rail, etc.) to the bottom portion of the fence. Chosen material should have a high visual contrast to the street/sidewalk surface.

Closed Crosswalks

If a crosswalk is closed due to construction, then curb ramps leading into that crosswalk should also be appropriately barricaded. Temporary curb ramps must be installed in the direction of the crosswalk to replace barricaded ramps. It should be noted that curb ramps are not used solely by persons in wheelchairs. They are also indicators to persons who are blind that a crosswalk exists and that there is a safe path-of-travel to cross the street. Temporary curb ramps should direct blind pedestrians to and through the temporary path-of-travel.

Open Crosswalks

If crosswalks are to remain open during the project then curb ramp areas should be kept free of debris, staging material, equipment, etc.

Path-Of-Travel

Any change of level in a path-of-travel which is over 1/4" in. (1/2" maximum) height must be beveled at 45 degree to provide a smooth, non-tripping transition.

NOTE: With the unique nature of each project, certain issues may arise which have not been covered in the above guidelines Each project will have to be reviewed on a case by case basis, to ensure that complete, safe, usable and accessible paths-of-travel are maintained during construction.

EXAMPLES OF CORRECT AND INCORRECT BARRICADING METHODS

Photographs A through F depict several examples of correct and incorrect barricading methods.

A. Incorrect Barricading Method

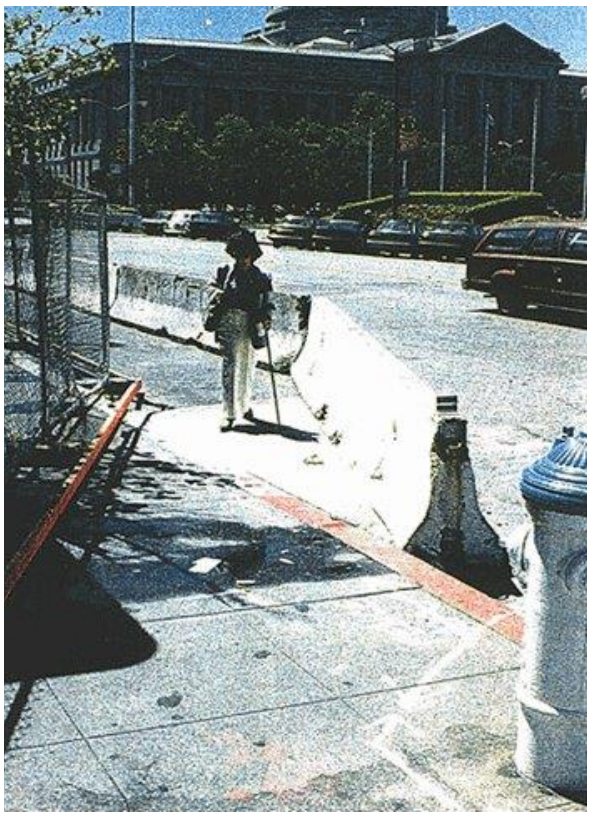
- "A-Frame" spacing is too wide
- Caution tape does not provide an adequate barricade or detectable path-of-travel
- Curb cut access has been blocked

B. Correct Barricading Method

- Orange plastic fencing with baseboard provides an easily detectable path-of-travel for persons who are blind/low visioned and using a "white mobility cane" Baseboard will also help eliminate the potential for a person using a "white cane" from getting the cane caught in the fencing mesh.
- Temporary bridging system (wooden decks/steel plates) provides an accessible path-of-travel for persons using a wheelchair. (Note: the cold patch (asphalt) at the ends of the bridge provides a beveled 1:2 lip of no more than 1/2 inch for a smooth transition).

C. Correct Barricading Method

- Baseboard at perimeter of fence supports provides for a well defined path-of-travel edge for persons who are low visioned/blind and using a "white mobility cane". Baseboard also prevents cane from getting caught in fencing mesh. The baseboard is to have a high contrast to the sidewalk/street surface
- K-Rail further defines the path-of-travel and protects pedestrians from vehicular traffic.
- Concrete float (temporary ramp) provides for a smooth transition from street to sidewalk for all pedestrians as well as those persons using a wheelchair. (Note: asphalt or other material that will remain in place and support the weight of a person in a wheelchair is acceptable as temporary ramping material)

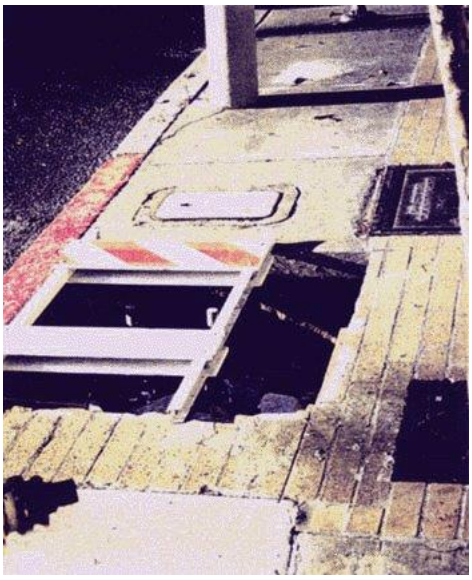


D. Correct Barricading Method (Curb ramp leading into a closed crosswalk)

- Entire perimeter of curb ramp is barricaded.
- Galvanized steel pipe railing provides an effective barricade (other materials providing the same level of barrier are acceptable).
- Bottom rail is within 12" - 20" above ground surface (this allows for detection by a person who is blind and using a "white mobility cane").
- Baseboard around perimeter of railing is a minimum 4" above ground surface (this allows for detection by a person who is blind and using a "white mobility cane").

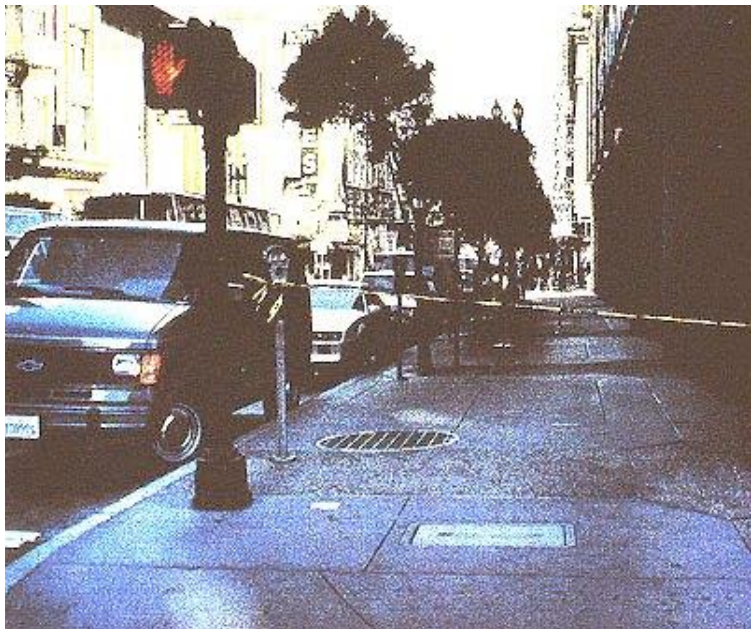
E. Incorrect Barricading Method

- This is an open trench/pit, for a new light pole. An opening in the path-of-travel poses a severe hazard to able bodied pedestrians as well as disabled pedestrians.
- The perimeter should be completely blocked off with upright barricades and no spacing should exist between the barricades.



F. Incorrect Barricading Method

- Caution tape being used to block off entire sidewalk
- No defined alternative path-of-travel (sending pedestrians into traffic)
- No solid base for detection by a person who is Low visioned/blind and using a "white mobility cane"
- No temporary crosswalk was provided for pedestrians using wheelchairs
- Overall this is an unsafe condition for all pedestrians; able bodied as well as persons with disabilities, and especially persons who are low visioned or blind.



END OF SECTION

SECTION 01 11 00

SUMMARY OF WORK

Completion Instructions for this Baseline Specification Template:

This 'Summary of Work' Section 01 11 00 requires extensive, Project-specific text entries for each of the individual "Manual insert fields." For each of these insert fields, instructions or examples of actual text copied from recently completed SFPUC contracts are provided for your reference to assist you in composing your own inputs. The individual titles for each of this Baseline Section's Articles serve as a guide in establishing what should be considered as appropriate subject matter to be addressed within this Section.

Other subject areas which may have been addressed within this Section in the past have been deliberately excluded here, because they stray too far from the "Summary of Work" topic, and in nearly every case, are thoroughly addressed elsewhere within the contract. Examples of some of these deliberately excluded topics are things like working hours, project site location, contractor qualifications, permits, contract method, etc. Although a limited amount of deliberate repetition may be appropriate in this particular Specification Section, please try not to excessively duplicate or (even worse) contradict information already provided in more appropriate locations within the contract.

Also note the particular 'Miscellaneous Instructions to the Contractor' title for this Section's Article 1.07. This Article can and should include all of the important warnings and reminders that you wish to ensure are not otherwise forgotten in our efforts to be as helpful as possible to all of the bidders.

PART 1 – GENERAL

1.01 INVESTIGATION PRIOR TO BIDDING

A. ***A site inspection will be offered at [Manual Insert]. Bidders are encouraged to attend.***

B. ***The Contractor shall be familiar with the Specifications and Available Project information cited in Section 00 31 00.***

1.02 SCOPE OF WORK OR PROJECT DESCRIPTION

A. ***The intent of this Contract is to provide the City with [Manual Insert] at locations to be determined within the City and County of San Francisco.***

B. ***The Work will consist of the following: [Manual Insert] and all work as required in accordance with the Contract Documents.***

C. The Contract shall, unless otherwise specified herein, furnish all labor, tools, equipment, materials, transportation, services, and perform all operations necessary for and properly incidental to the Contract work and completion of the Work as indicated in the Contract Documents.

D. *[Manual insert field – Provide an appropriately expanded version of the abbreviated work description required as Perfectus data input for insertion into the Section 00 11 13 'Advertisement for Bids.']*

1.03 MISCELLANEOUS WORK COMMON TO THE ENTIRE CONTRACT

[Manual insert field – The following illustrative example of text used in an actual previously advertised contract [WD-2504] for this Article reads as follows:

A. *Field testing of systems; leveling; furnishing, coordinating and installing sleeves, anchors and other embedded items; core drilling; posting of signs; and doing incidental and related work to place all systems in operating condition as designed and as required by federal, state, and local codes and regulations.*

B. *The Work of this Contract shall be complete and all work, materials, equipment and services not expressly indicated or called for in the Contract Documents which may be necessary for the complete and proper construction of the Work in good faith shall be provided by the Contractor as though originally indicated, at no additional cost to the City.]*

1.04 SERVICES TO BE PROVIDED BY THE CITY DURING THE COURSE OF CONSTRUCTION

[Manual insert field – The following illustrative example of text used in an actual previously advertised contract [WD-2504] for this Article reads as follows:

A. *The City will provide inspection and testing services required for the preparation and execution of this Contract, unless otherwise noted in these Specifications.]*

1.05 DESIGN (AND OTHER) SERVICES TO BE PROVIDED BY THE CONTRACTOR

[Manual insert field – if not applicable, either type "(Not Used)" alongside the Article title, or delete the Article title.]

1.06 CONSTRUCTION SCHEDULING AND SEQUENCING

[Manual insert field – The following illustrative example of slightly abridged text used in an actual previously advertised contract [WD-2504] for this Article reads as follows:

A. Contractor shall complete all work associated with the Portola Drive pipeline within 90 calendar days from NTP. Contractor shall start the Portola Drive

pipeline work at the west end (near Dorchester Way) and work towards Laguna Honda Blvd. This is necessary to avoid delay to DPW Contract No. 1326J – Portola Drive Pavement Renovation.

B. The West Basin work shall be performed first, followed by the East Basin, unless otherwise approved by the City Representative.]

1.07 MISCELLANEOUS INSTRUCTIONS TO THE CONTRACTOR

[Manual insert field – The following illustrative example of admittedly lengthy and slightly abridged text used in an actual previously advertised contract for this Article reads as follows, but is not necessarily intended for further use as "endorsed" language to be cut and pasted into any other contract:

A. ***The Contractor shall note that the Excavation Code, Article 2.04, amended,, and the Order No. 187005: "Regulations for Excavating and Restoring Streets in San Francisco," takes precedence over the SFPW Standard Specifications and Standard Plans when differences arise. Otherwise, the Standard Specifications and Standard Plans shall govern the excavation and restoration of City streets.***

B. ***Unless otherwise directed or allowed by the City Representative, the Contractor shall perform all work required under this contract in sections approximately 1,200 feet in length and no more than two adjacent blocks at a time. All work in one section shall be completed before excavation in an adjacent section is allowed.***

C. ***All backfill shall be compacted as specified on the day it is placed. If the Contractor elects to install temporary paving, temporary paving shall be a minimum of three inches thick of hot asphalt concrete and shall be mechanically compacted as directed to provide a smooth, clean surface. Compaction by wheel rolling will not be allowed. Temporary paving shall be removed and permanent paving shall be installed as per SFPW Regulations for Excavating and Restoring Streets in San Francisco. Contractor shall provide vertical saw-cut at all cold joints within new paving.***

D. ***The use of Vermeer rock wheel cutter and/or similar types of equipment for cutting, trenching, or excavating pavement is prohibited unless permitted by Special Orders of the Director of Public Works for specific locations.***

E. ***The Contractor's attention is directed to the fact that there may exist inactive and/or obsolete services in the area of work to be done under this contract. Those services may not be marked, and cannot be readily located in the field because of the absence of meters or meter boxes.***

F. ***A complete list of all known services, including inactive or obsolete services, is on file in the Engineering Office of the City Distribution Division, located at 1990 Newcomb Avenue. Please contact Ms. Gloria Chu at (415) 920-4062.***

G. ***Protecting, repairing and working around such services are considered as incidental work under the appropriate bid items, and no separate payment will be made therefore.***

H. ***There are Muni Overhead wires within the boundary of the contract.***

I. ***The Muni overhead electric wires carry a minimum of 600 volts DC and have a 17 feet +/- vertical clearance from the roadway. The Contractor's attention is directed to Article 37 of G.O. Order 95 of the Public Utilities Commission, State of California. Applicable Cal OSHA regulations require that any boom type equipment that moves vertically must maintain a 10 feet radial clearance and any other equipment must maintain a 6 feet clearance from Muni overhead electric wires. The Contractor shall strictly adhere to the aforementioned regulations while working under Muni overhead wires.***

J. ***Contractor is solely responsible for ensuring that any and all Contractor officers, employees, agents, subcontractors and suppliers on-site fully comply at all times with any and all applicable regulations, regardless of whether Contractor chooses to conduct its compliance enforcement by assigning compliance enforcement duties to its on-site foreman or superintendent, or whether Contractor chooses to retain third party inspection services which shall be paid by the Contractor as incidental work with no additional cost to the City.***

K. ***Contractor shall be solely and fully liable for any and all sanctions, fines, penalties, incidental and consequential damages arising out of Contractor's failure to comply with all applicable requirements referenced in this Section. Contractor shall be solely and fully liable regardless of whether the City Representative is or is not present on site at the time of such violation, and regardless of whether the City Representative has or has not identified, noticed, and/or alerted the Contractor of the violation.***

L. ***Muni trolley service must be maintained at all times. (See Specification Section 01 55 26)***

M. ***Supporting, working around and protecting of all utility facilities owned and operated by the City and County of San Francisco are considered as incidental work per provisions of the Contract Requirements Section 00 73 20 "Existing Utility Facilities" and Section 00 73 21 "Utility Crossings Specifications."]***

1.08 CONTRACTOR'S USE OF SITE

[Manual insert field – The following illustrative example of admittedly lengthy and slightly abridged text used in an actual previously advertised contract [WW-448, 'Contractor Use of Premises' Article 1.03] for this Article reads as follows, but is not necessarily intended for further use as "endorsed" language to be cut and pasted into any other contract, nor does it reflect the very important environmental restrictions pertaining to "Construction Limits" set forth in Article 3.11C & D (under "Biological

Resources" – see Article 3.12C & D instead) of 'Environmental Procedures' Section 01 35 43 :

A. ***The City will furnish, as indicated in the Contract Documents, the lands upon which the work is to be performed, rights-of-way and easements thereto. The City Representative will identify any restrictions* specifically related to use of lands so furnished with which the Contractor will have to comply in performing the work. Nothing contained in the Contract Documents shall be interpreted as giving the Contractor exclusive occupancy of the lands or rights-of-way provided. [* suggest listing those restrictions here, rather than just committing the City Representative to do so later]***

B. ***Contractor's Work Area: The Contractor's work area and staging area shall be as directed by the City Representative in the field. Contractor shall not park or stage equipment in non-designated areas inside ****Sunnydale Pump Station and Griffith Pump Station**** without the approval of the City Representative. The Contractor shall submit plans showing staging and parking areas as required in Section 01 55 26, for review and approval of the Traffic Engineer. Refer to Contract Drawings for location of Contractor's work and staging areas. Refer to Section 01 50 00 "[Temporary Facilities and Controls]" for temporary sanitary facilities requirements.***

C. ***Additional Staging and Storage: Contractor shall be responsible for providing any additional staging and storage areas outside the boundaries of the ****Sunnydale Pump Station and Griffith Pump Station****. Such staging and storage areas shall not be located on City streets. The cost of any additional staging and storage areas on nearby private property shall be borne solely by the Contractor. The Contractor shall not enter upon or use any property not under control of the City until a written temporary construction easement agreement has been executed by the Contractor and the property owner, and a copy of said agreement furnished to the City Representative prior to said use. Neither the City nor the City Representative shall be liable for any claims or damages resulting from Contractor's unauthorized trespassing or use of any such properties.***

D. ***Maintenance of Work Area: Contractor shall at all times maintain the areas in a safe condition, remove all accumulations of rubbish and surplus materials at the end of each working day, restore them to a condition equal to that which existed prior to the start of work, and leave them at completion of the contract in a clean, orderly fashion.***

E. ***Security of Contractor's Work Area: Security of Contractor's work areas and its property, equipment, construction materials, and all other items contained in Contractor's staging areas or elsewhere on the construction site shall be Contractor's sole responsibility at all times. This requirement shall be in effect during normal working hours as well as nighttime hours, weekends, and holidays.***

1.09 NIGHT AND WEEKEND WORK

[Manual insert field – The following illustrative example of text used in an actual previously advertised contract [WD-2504] for this Article reads as follows, but is not necessarily intended for further use as "endorsed" language to be cut and pasted into any other contract:

A. ***Contractor shall not perform night work, i.e., between the hours of 5:00 p.m. and 7:00 a.m., or weekend work without prior written permission from the City and all permitting agencies. Contractor shall provide a minimum of 3 working days advance written notice of such night or weekend work so that arrangements can be made for City inspectors to be present and local residents and businesses can be notified or required permits can be obtained.***

B. ***Night and weekend work shall be at no additional cost to the City.***

C. ***Contractor shall comply with the requirements of Article 29 of the Police Code, Regulation of Noise.***

1.10 HAULING OF MATERIAL

[Manual insert field – The following illustrative example of slightly abridged text used in an actual previously advertised contract [WD-2504] for this Article reads as follows, but is not necessarily intended for further use as "endorsed" language to be cut and pasted into any other contract:

A. ***All excavated and demolished material and construction debris shall be disposed off site, unless needed for fill or otherwise approved by the City Representative.***

B. ***The Contractor will be responsible for cleanup of soil or other debris spilled from trucks and the affected streets shall be cleaned daily with wet type sweepers. Flushing of soil or other debris into storm drains is prohibited.]***

1.11 DEMOLITION REQUIREMENTS

[Manual insert field – The following illustrative example of slightly abridged and modified text used in an actual previously advertised contract [WD-2469 for its Article 1.02 titled 'Pump Station Demolition Work'] reads as follows, but is not necessarily intended for further use as "endorsed" language to be cut and pasted into any other contract:

A. ***The Work of demolishing the existing pump station, and its contents includes, but is not limited to the following:***

1. ***The existing ****Forest Knolls Pump Station****, 8" pipeline, and existing Hydropneumatic Tank, shall remain fully operational and in service, and shall not be demolished until the new Pump Station, hydro***

tanks and Storage Tank are completely built, tested and accepted by the City, at which time the demolition of the existing Pump Station and hydro tank will be authorized by the City Representative.

2. ***Demolition Work***

   a. ***Hazardous material abatement***

   b. ***Remove, salvage and dispose of equipment***

   c. ***Remove and dispose of entire pump station structure, steel storage tank, and hydropneumatic tank, including foundation, floors, walls, and roof.***

   d. ***Remove and dispose of curbing, clearing and grubbing of vegetation, buried piping, vaults, conduits, and wiring.***

3. ***Existing Pump Station Site and Landscape Restoration Work:***

   a. ***Furnish and install concrete curb, landscape grading, irrigation systems, and landscape planting including maintenance.]***

1.12 HAZARDOUS MATERIALS MANAGEMENT

Instructions to Project Engineer: The Baseline versions of the two hazmat Specification Sections 01 35 43.19 and 01 35 43.13 have not yet been finalized for installation into Perfectus, but preliminary versions of both are available upon request from Contract Standards. Until then, Perfectus will perform the programmed edits in red below in part 'A', subject to the user-selected inputs to the Perfectus Questionnaire. In addition, Perfectus will generate a blank, single page placeholder sheet in the Division 01 output for either or both Sections 01 35 43.19 and 01 35 43.13, but only if they are selected for inclusion in the contract via the Perfectus Questionnaire. And as stated in the programming instructions at the top of this template's first page, this Article entitled "HAZARDOUS MATERIALS MANAGEMENT" should be deleted in its entirety if neither of the two hazmat spec Sections 01 35 43.19 and 01 35 43.13 are selected in the Perfectus Questionnaire.

A. Contractor shall fully comply with all applicable hazmat removal requirements set forth in Section 01 35 43.19 – Contaminated Soils in Excavation andSection 01 35 43.13 – Building Related Hazardous Materials.

1.13 ELECTRONIC CERTIFIED PAYROLL REQUIREMENTS

A. Contractor shall fully comply with the submittal requirements for electronic certified payrolls as outlined in Article 9.03M of the Section 00 72 00 General Conditions.

1.14 PROJECT-SPECIFIC SAFETY AND HEALTH REQUIREMENTS

A. Contractor shall notify Operations prior to entering any Wastewater Enterprise facilities, manholes, structures, and other assets and upon final exit each day.

Contact SEP Operations for Bayside project; contact OSP Operations for Westside projects. The Contractor shall attend an Advertisement Meeting with the assigned Safety Officer, during which the Contractor will be given the name and number of the facility the Contractor shall notify prior to entry/arrival. ***Keep this subparagraph A for all San Francisco contracts, including WD- contracts.***

B. Contractor shall notify Operations (CDD, Water Supply & Treatment Division, HHWP) prior to entering any manhole, outfall, and other assets prior to entering. ***Delete this subparagraph only if this is a WW- contract with no water facility access required.***

C. ***[Manual insert field – insert and/or relocate from other submitted Documents or Specifications, any Project-specific safety and health related requirements, reminders, warnings, etc. that are not addressed in 'Health and Safety Requirements' Section 00 73 19. Do not use language that strays or deviates from the main objective of 00 73 19 that the Contractor is solely responsible for identifying and complying with all applicable safety and health requirements for the Work.]***

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 14 13

ACCESS TO SITE

PLEASE CONTACT JEFF HARP, HEAD OF SECURITY AND ASSET PROTECTION, FOR ASSISTANCE IN COMPLETING THIS SECTION, INCLUDING THE TOTAL OF SEVEN MANUAL INSERT FIELDS.

PART 1 – GENERAL

1.01 SUMMARY

A. Section includes requirements for site access.

B. Related Documents:

1. Section 00 72 00 – General Conditions

2. Section 00 73 63 – Site Security

1.02 SUBMITTALS

A. Submit to the City Representative written acknowledgement of Contractor Deliveries requirements as indicated in Article 1.05 of this Section prior to allowing deliveries to the site. The Site Security Monitor will be responsible for allowing and monitoring deliveries on site.

1.03 DAILY SITE ACCESS

A. In addition to the Photo-Identification Badges being issued to the Contractor in accordance with Section 00 73 63, the SFPUC will also issue twenty Temporary Contractor Badges to the Contractor for Contractor's temporary workers, delivery personnel, and other temporary workers. Upon verification by the Site Security Monitor, and compliance with Section 00 73 63, a Temporary Contractor Badge or Visitor Badge will be issued to the temporary worker.

B. The SFPUC will also issue its own Visitor Badges, valid for one day, at the ***[Manual insert field]*** between the hours of ***[Manual insert field]*** and ***[Manual insert field]*** to delivery drivers and other temporary workers after reason for site visit is confirmed and signed in by the Site Security Monitor. Visitor Badges shall be returned to the ***[Manual insert field – Specify the title and/or other descriptor for the designated individual who shall receive all Visitor Badges when returned by the Badge holders upon either their leaving the site for the day, or at the end of the day.]*** upon leaving the site for the day, or at the end of the day.

If by the end of working hours each day the SFPUC determines that a Visitor Badge issued to a representative of the Contractor has not been turned in, the City Representative will inform the Site Security Monitor, and the Site Security Monitor shall be responsible for locating and returning the Visitor Badge.

C. The project requires a manned established security/controlled access checkpoint as shown on the drawings, which is to be manned between the hours of ***[Manual insert field – Specify the earliest time of day that established security/controlled access checkpoint(s) shall be manned.]*** and ***[Manual insert field – Specify the latest time of day that established security/controlled access checkpoint(s) shall be manned.]*** by the Contractor at the Contractor's expense.

D. At the ***[Manual insert field – Provide a text description of the exact location at the Project Site where SFPUC will operate a Security Checkpoint Office.]***, the SFPUC operates an existing Security Checkpoint Office at the facility's main entry gate. The Security Checkpoint may be staffed by a SFPUC Security Officer during all regular working hours and other hours as may be determined by the SFPUC. As determined by the SFPUC, roving Officer(s) may also patrol the facility. Providing a SFPUC Security Officer or roving Officer(s) does not relieve the Contractor its responsibility to provide a Site Security Monitor at all times during construction activities.

E. Facility perimeter gates are normally opened only for emergency or infrequent vehicle ingress/egress. Perimeter gates are to be kept closed at all times.

1.04 DAILY SITE ACCESS POINTS OF ENTRY

A. General:

1. All personnel shall take the most direct route to and from the Work Area, as defined on the Drawings. Work crew will remain in established work area, barricaded areas, or designated haul routes.

B. ***[Manual insert field – Provide specific, text directions for entering and exiting the work area.]***

1.05 CONTRACTOR DELIVERIES

A. United States Postal Service, Federal Express, UPS, or similar mail and parcel deliveries may be addressed to the site to the Contractor, any subcontractor or suppliers of the Contractor or subcontractor, or other offsite point established by Contractor.

B. All deliveries shall be made during regular working hours as defined in Section 00 72 00.

C. Contractor shall follow the guidelines in U.S. Postal Inspection Service Publication 166, Mail Center Security Guidelines. A copy of these guidelines can be found at: https://about.usps.com/publications/pub166.pdf

D. Mail and Packages:

1. Contractor shall either:

a. Take delivery in a separate processing "shed" on site but separated from main facility areas at a location approved by the City Representative. This site can be the Contractor's separate temporary field office facility, or

b. Set up off-site package processing center with a separate address and then bring deliveries to the site with its own vehicles.

2. All mail and packages whether delivered to the Contractor's onsite or off-site facility shall not be allowed into the Work Area until such time as they have been screened by Contractor's Site Security Monitor in accordance with the US Postal Inspection Service Publication 166 mail and package screening guidelines.

E. Freight and Bulk Deliveries:

1. Truck drivers will be subject to the identification requirements as specified in Article 1.06 in Section 00 73 63.

2. Deliveries of freight and bulk (larger packages, crates, equipment, or materials) are permitted to enter the site only after:

a. The vehicle is met at ***[Manual insert field – Provide a text description of the exact location at the Project site where freight and bulk delivery vehicles shall be met by the Contractor's Site Security Monitor.]*** by Contractor's Site Security Monitor.

b. The source and contents of the packages, crates, equipment, or materials are verified by the Contractor's Site Security Monitor, and

c. The driver and others provide the Site Security Monitor with sign-in information, and badge(s) are issued to the driver (and others as required).

F. All freight and bulk deliveries made to the site may be subject to search and inspection regardless of the final delivery destination. The Contractor shall inform all delivery companies and drivers in advance that all freight entering the site is subject to search. Contractor shall submit written acknowledgment that all freight and bulk delivery companies have been informed of and consent to such searches.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 20 00

PRICE AND PAYMENT PROCEDURES

PART 1 – GENERAL

1.01 SUMMARY

A. This Specification Section covers requirements and procedures for preparation and submittal of Contractor Progress Payment Requests.

B. Related Documents and Sections include:

1. Section 00 41 10 – Schedule of Bid Prices
2. Section 00 72 00 – General Conditions
3. Section 01 29 73 – Schedule of Values
4. Section 01 32 16 – Construction Progress Schedule

1.02 DEFINITIONS

A. Unit Price Work

1. The City will determine the quantities of work to be paid for any item for which a unit price is fixed in the Contract. The foregoing shall also apply to Bid Items for which the unit of measurement is designated as "Each."
2. Unless otherwise provided, determination of the number of units of work so completed will be based, so far as practicable, on the actual measurement or count made by the City Representative of the work satisfactorily completed within the prescribed limits.

B. Lump Sum Work:

1. When the estimated quantity for specific portions of work is not indicated on the Schedule of Bid Prices and unit is designated as lump sum, payment will be on a lump sum basis in accordance with the approved Schedule of Values for work satisfactorily completed.

C. Allowance Bid Items:

1. Contingency Allowances are individually set aside, fixed dollar amounts available on a contingent basis for selected items of work and/or materials that may be performed and/or procured only when and as directed in

writing by the City, and shall be limited to items of work properly inferable from the description of the allowance. Contingency Allowances cover work or other cost items that are not anticipated or foreseen and may or may not ultimately be required during the performance of this Contract. Payment under a Contingency Allowance will include Contractor's mark-up for overhead and profit and will be paid under the Change Order provisions of Article 6 of the General Conditions, Section 00 72 00.

2. Cash Allowances are used for an item of work or other cost item which is known to be required, or likely to be required, in the performance of this Contract. Payment under a Cash Allowance will be made only for the actual invoice amount of items purchased or direct costs incurred. Contractor's other costs, which may include, but not be limited to, equipment handling, unloading, cleaning, storage, installation labor, administration, supervision, overhead and profit, shall be considered by the City to be included in Contractor's Base Bid outside of the Cash Allowance and will not be reimbursed.

3. Work under specific allowances in this Contract may be implemented or deleted partially or in its entirety. Upon bid submittal, the Contractor shall not claim credit for any Local Business Enterprise ("LBE") subcontract work described as allowance work items. Since it is possible that some, all, or none of the amounts provided for in these Bid Items may be used, the provisions of Section 00 72 00 – General Conditions for deleting the Bid Item Work entirely shall not apply for these Bid Items. Claims for loss of anticipated profit due to the City's decision not to use some or all of allowance bid items will not be considered.

4. If an allowance item is not expended or is only partially expended, the contract sum will be reduced to reflect the difference between the amount provided in the original contract sum and the cost of the actual allowance work.

5. The dollar amount given in the Schedule of Bid Prices for each allowance item shall be the amount of funds set aside for each allowance. Said amounts shall be included in Contractor's Total Bid on the Schedule of Bid Prices.

D. Alternate Bid Items:

1. Alternate Bid Items, which are additive, are specific in nature (e.g., additional pavement or overexcavation) and are designated in the Schedule of Bid Prices.

2. If an Alternate Bid Item is selected by the City and should no work be performed on that Bid Item, the amount of credit to the City shall be the entire amount Bid for that Alternate Bid Item.

3. Should Work be performed for a Bid Item indicated as Alternate on the Schedule of Bid Prices and the City Representative directs that no further work under said Bid Item be performed, the City will pay Contractor for the actual costs incurred only. The Contractor shall not make claims for loss of anticipated profit due to the City's decision not to use some or all of the Alternate Bid Items.

1.03 BASIS OF PAYMENT

A. Quantities of Work to be paid for under any item for which a unit price is fixed in the Contract shall be the number, as determined by the City Representative, of units of Work satisfactorily completed in accordance with the requirements of the Contract Documents.

B. Unless otherwise provided, determination of the number of units of Work so completed will be based, so far as practicable, on the actual measurement or count within prescribed or ordered limits, and no payment will be made for work done outside of limits.

C. Measurements and computations will be as determined by Contract requirements, or if not otherwise prescribed, made by methods as the City Representative may consider appropriate for the class of work measured.

D. The description for each of the Bid Items in this Section provides a general description of the work to be covered under each item. It is not the intent of each Bid Item Description to provide in detail all work and costs required. The Contractor shall allocate or assign the costs of all contract work as it sees best to the individual Bid Items in accordance with the Contract. Each Extension dollar amount for each Bid Item shall be full compensation for furnishing all labor, material, equipment, and tools necessary for the Work; for performance and completing all Work in accordance with the Contract; and for all expenses and markups incurred by the Contractor for any purpose incidental to performing and completing the Work. The Contractor's failure or omission to include any costs for the contract work in its bid shall not be justification for additional compensation. Any allowance or extra work to be performed under this Contract shall either be performed under the Allowance Bid Items listed in Section 00 41 10 or performed through change orders as authorized by the City Representative.

1.04 PROGRESS ESTIMATES AND PAYMENTS

A. Progress payments for the Work performed under this Contract will be made in the manner described in the General Conditions.

1. Progress payments will be based upon progress estimates by Contractor and verified by the City Representative of the actual physical progress of the work. The Contractor shall be responsible for the measurements and

surveys required to establish the progress estimate and shall, upon request by the City Representative, make available for checking all surveying and measurement notes and logbooks complete with benchmarks and monuments used.

2. Progress payments will be made on a monthly basis and no mid-monthly payments will be made regardless of the value of the work and material incorporated prior thereto.

3. The Contractor shall submit a monthly CPM schedule update with each Application for Payment.

4. Contractor shall certify its estimate of the quantities of the work completed, contained in the monthly progress payment estimate, by signing each such estimate prior to its submission.

5. The City will make final determination if agreement cannot be reached on Contractor's progress payment request.

B. The application for payment shall identify, as a subtotal, the amount of the Contractor total earnings to date; plus the specified percentage of the value of any unique materials or equipment stored on or off the Site and not yet been incorporated in the Work which have been authorized by the City for advance payment per Article 9 of the General Conditions; and less a deductive adjustment for materials or equipment installed which were not previously incorporated in the Work, but for which advance payment was allowed under Article 9 of the General Conditions.

C. The net payment due the Contractor shall be the above-mentioned subtotal from which shall be deducted the amount of any applicable retainage and the total amount of all previous payments made to the Contractor. The Contractor shall make adjustments for any withholdings from the payment due, such as for Stop Payment Notices, at that time. Withholdings for defective work, as per prior notifications to the Contractor, will also be made.

1.05 PROJECT-SPECIFIC REQUIREMENTS

A. ***Not Used***.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

The following manual insert fields for Bid Item Nos. shall be fully consistent with those shown in the 'Schedule of Bid Prices' Section 00 41 10. Bid Item Numbers and Bid Item Titles appear both in this Section and Section 00 41 10, and they must match exactly. For simplicity

"Bid Item" may be displayed in the column heading for "Bid Item Number" in the table within the SOBP. This Section only will have full text descriptions to augment each Bid Item Title. The Project Engineer provides these full text descriptions of the individual Bid Items provided within the manual insert fields below. One set of Bid Item No., Bid Item Title, and Bid Item Full Text Description shall be provided in this Section for every Bid Item listed in Section 00 41 10. Previously "Bid Item Description" meant "Short Bid Item Description" with the Long Bid Item Description appearing in this Section only. "Bid Item Description" has been changed to "Bid Item Title."

All Bid Items designated as allowances shall be clearly identified as either 'Cash' or 'Contingency' Allowances in both the Bid Item Descriptions that follow, and in 'Schedule of Bid Prices' Section 00 41 10. The Project Engineer shall obtain the Project Manager's concurrence for all such designations, both 'Cash' and 'Contingency,' and for the corresponding allowance dollar amounts listed in the Section 00 41 10 'Schedule of Bid Prices.' Extensive help text including examples and recommended text descriptions for several commonly used Bid Items (both related and unrelated to allowances) is provided in the following pages of this template to assist the Project Engineer and Project Manager in drafting the appropriate language.

A. Guidelines (Help Text) for the use of ALLOWANCES:

1. As a general rule, do not specify Cash Allowances for Bid Items that involve indefinite scopes of work as bidding laws require scopes of work to be competitively bid.

2. The total dollar amount of all construction contract Allowances should be limited to approximately 3% of the total contract amount. On a case by case basis, certain Cash Allowances that involve work required for a project that, by its very nature, cannot be competitively bid may be excluded from the 3% cap.

3. Every Allowance Bid Item should be clearly identified in Article 3.01 above, and in the 'Schedule of Bid Prices' Section 00 41 10 as either a 'Contingency' or 'Cash' Allowance, consistent with the definitions provided in the help text items 'A. 1.' and 'A. 2.' above . Each Allowance Bid Item description should be thorough and clear, and leave no doubt as to what work an Allowance covers (and what it does not cover), and what payment procedures apply.

B. Contingency Allowances and Cash Allowances are further explained as follows:

1. Contingency Allowances may be used where an item of work or other scenario or cost item is not anticipated or foreseen, but may or may not ultimately be required during the performance of this Contract. The type of work performed and paid under a Contingency Allowance is typically no different than unforeseen/differing site condition change

order work. Accordingly, the use of Contingency Allowances is not required (as the work can always be performed as change order work); however, limited use of Contingency Allowances may provide some flexibility in administering the contract/project. Payment under a Contingency Allowance will include Contractor's mark-up for overhead and profit and will be paid under the Change Order provisions of Article 6 of the General Conditions (Section 00 72 00).

a. A Contingency Allowance may be used in the case where an item of work or other cost item is truly "unanticipated" and may or may not ultimately be required during the performance of the Contract. Contingency Allowances are not required, as such work may be performed as change order work outside of the original contract sum.

b. The commonly used "unforeseen condition" is an example of a Contingency Allowance (see below).

c. A Contingency Allowance compensates for the Contractor's overhead and profit and will be paid as a Change Order per the Change Order provisions of the General Conditions.

d. The use of Contingency Allowances should be minimized to the extent possible as excessive use of such Allowances may circumvent the Commission's oversight authority for contract changes per the Administrative Code.

e. Examples of Contingency Allowances are:

1) Allowance for Supporting, Working Around or Removing Unforeseen Underground Utilities

2) Allowance for Unforeseen Environmental Mitigation

3) Allowance for Hauling, Testing and Disposal of Unforeseen Contaminated Soils or Hazardous Materials (if their presence is unknown

f. Two examples of generically worded Contingency Allowance Payment Bid Item Titles and Descriptions are provided as follows, for reference and use by any Project that may require their inclusion in the contract:

1) CONTINGENCY ALLOWANCE FOR SUPPORTING, WORKING AROUND OR REMOVING UNFORESEEN UNDERGROUND UTILITIES

A Contingency Allowance in the amount shown in the Schedule of Bid Prices will be paid as directed by the City representative for supporting, working around or removing unforeseen underground utilities. Refer also to Section 00 73 20. Pricing and procedural matters for this

Allowance work will be governed by Article 6 of the General Conditions (Section 00 72 00).

2) CONTINGENCY ALLOWANCE FOR HAULING, TESTING, REMOVAL, AND DISPOSAL OF CLASS I HAZARDOUS MATERIALS

A Contingency Allowance in the amount shown in Section 00 41 10 will be paid as directed by the City Representative for Testing, Handling, Hauling, and Disposal of Class I hazardous materials at an appropriate landfill per the requirements of Section 01 35 43.19. Pricing and procedural matters for this Allowance work will be governed by Article 6 of the General Conditions (Section 00 72 00).

2. Cash Allowances will be used to pay for an item of work or other cost item which is known to be definitely (or likely) required in the performance of this Contract, but which either cannot be specified adequately to permit accurate pricing by the Bidders at the time of bid or by its nature is not subject to competitive bidding. Payment under a Cash Allowance will be made only for the actual invoice amount of items purchased or direct costs incurred (as noted in Contract language above).

a. Cash Allowances may be used for items of work that reflect existing agreements with third parties (e.g., payment for police/CHP traffic services), fee payments related to permit acquisition, special testing and inspection, sole-source goods or services, and assignment of existing purchase orders to Contractor. Contractor's other costs may include, but not limited to, equipment handling, unloading, cleaning, storage, installation labor, administration, supervision, overhead and profit shall be considered by the City to be included in Contractor's Base Bid outside of the Cash Allowance and will not be reimbursed.

b. A Cash Allowance is used to pay for an item of work or material which is known to be definitely (or likely) required in the project, but cannot be specified adequately to permit accurate pricing by the Bidders at the time of bid (as noted in Contract language above).

c. In addition, a Cash Allowance can (and oftentimes should/must) be used for items of work which by their very nature do not require or are not subject to competitive bidding (e.g., sole source equipment, assignment of existing purchase order, pass-through fees for DRB services).

d. In general, the Cash Allowance pays only for the actual invoice amount for purchased items or costs incurred.

e. A common condition of the Cash Allowance is that it usually will not pay for the Contractor's "other costs" including Contractor's mark-up for overhead and profit, Contractor's installation labor, equipment handling, unloading, cleaning, storage, administration, or supervision. Such "other costs" are deemed included in Contractor's base bid outside of the Allowance. There may be exceptions to the general rule, so it's important to consider the details of the specific work at issue when drafting an allowance description. Keep in mind that if a portion of the work can be competitively bid at the time of bid, that portion must be competitively bid, and the Allowance description should instruct Bidders to include such costs in their bids outside of the Allowance.

f. Circumstances that may trigger the need for a Cash Allowance are: choice of finish materials, existing agreements with Third Parties, permit fees, and procurement of sole source equipment, and assignment of existing purchase orders to Contractor. These circumstances by their very nature generally do not require competitive bidding.

g. Examples of Cash Allowances are:

1) Cash Allowance for Partnering fees and expenses

2) Cash Allowance for Dispute Review Board

3) Cash Allowance for Special Testing and Inspection of Structural Framing

4) Cash Allowance for Excavation Permit Fees

5) Cash Allowance for Purchase of Mueller Gate Valves

6) Cash Allowance for additional City Representative Field Office Supplies

h. Three examples of generically worded Cash Allowance Payment Bid Item Titles and Descriptions are provided as follows, for reference and use by any Project that may require their inclusion in the contract:

1) CASH ALLOWANCE FOR DISPUTE REVIEW ADVISOR/BOARD

A Cash Allowance of the listed amount in Section 00 41 10 for this Bid Item will be paid as directed by the City Representative toward the City's 50% share of fees and expenses for Dispute Review Advisor/Board (DRA/DRB) activities, meetings, and workshops. The remaining 50% portion of the use of DRA/DRB activities and Partnering meetings and workshops shall be paid by the Contractor. Procedural matters and payment under this Allowance for

Dispute Review Advisor/Board will be governed by Sections 00 73 10 / 00 73 12.

2) CASH ALLOWANCE FOR PURCHASE OF MUELLER GATE VALVES (Quantity to be determined)

A Cash Allowance in the amount listed in the Schedule of Bid Prices will be paid as directed by the City Representative for purchase of Mueller Gate Valves. Refer to Section [Manual insert field]. Contractor's "other costs," including equipment handling, unloading, cleaning, storage, installation labor, administration, supervision, overhead and profit, shall be included in Contractor's base bid outside of this cash allowance, and will not be reimbursed under this cash allowance.

3) CASH ALLOWANCE FOR ADDITIONAL SPECIAL TESTING AND INSPECTIONS

An Allowance in the amount listed in the Schedule of Bid Prices will be paid for additional special testing and inspections including but not limited to demolition, welding, structural, and other tests and inspections as directed by the City Representative. Contractor's "other costs", including equipment handling, unloading, cleaning, storage, installation labor, administration, supervision, overhead and profit, shall be included in Contractor's base bid outside of this cash allowance, and will not be reimbursed under this cash allowance.

C. Miscellaneous Bid Item Descriptions:

Three specific, generically worded Bid Item Titles and Descriptions unrelated to allowances are also provided as follows, for reference and use by any Project that may require their inclusion in the contract:

1. TRENCH SHORING AND BRACING PER ALL APPLICABLE SAFETY ORDERS

Trench shoring and bracing and excavation support work, as specified, including adequate sheeting, shoring and bracing, or equivalent method for the protection of life and limb, and conforming to applicable safety orders of OSHA and the State of California Division of Industrial Safety, will be paid at the lump sum price bid. Refer to Specification Section [Manual insert field].

2. DISINFECTION AND CHLORINATION OF PIPING AND EQUIPMENT

Payment for disinfection and chlorination of piping and equipment will be made at the Lump Sum price bid. Work includes disinfection and chlorination of equipment, pipelines, valves, fittings, pumps, wells, mechanical devices, and storage tanks to be used for treatment, conveyance, and/or storage of drinking water and all incidental and related work. Refer to Section 01 35 55, Sanitary Work Practices, Disinfection, and Other Regulatory Requirements.

3. ASPHALT CONCRETE MILLING

Asphalt concrete pavement milling (planing) will be paid at the unit price bid. Refer to Section [Manual insert field]. Includes all incidental and related work. Measured for payment per square foot of milling satisfactorily performed within the required boundaries as shown on the Contract Drawings.

3.02 SCHEDULE OF BID PRICES (ALL ITEMS INCLUDE ALL NECESSARY LABOR, MATERIALS – EXCEPT AS OTHERWISE SPECIFIED – AND INCIDENTAL WORK TO COMPLETE THE ITEM):

BID ITEM NO. 1:
MOBILIZATION

[Manual insert field – Detailed full text description of the Bid Item to be provided by the Project Engineer]

BID ITEM NO. 2:
DEMOBILIZATION

[Manual insert field – Detailed full text description of the Bid Item to be provided by the Project Engineer]

BID ITEM NO. 3:
[MANUAL INSERT FIELD – BID ITEM TITLE]

[Manual insert field – Detailed full text description of the Bid Item to be provided by the Project Engineer]

END OF SECTION

SECTION 01 21 50

MOBILIZATION ITEM

PART 1 – GENERAL

1.01 SUMMARY

A. This Specification Section outlines those responsibilities of the Contractor that are scheduled to be performed for both mobilization and demobilization.

B. The Contractor shall be fully compensated in the fixed amounts indicated in Section 00 41 10 for "Mobilization" and "Demobilization" upon completion of the applicable items listed in Articles 1.02C and 1.02D of this Section, respectively.

C. Related Document and Sections:

1. Section 00 41 10 – Schedule of Bid Prices
2. Section 00 72 00 – General Conditions
3. Section 01 11 00 – Summary of Work
4. Section 01 31 00 – Project Management and Coordination
5. Section 01 35 43 – Environmental Procedures
6. Section 01 33 00 – Submittal Procedures
7. Section 01 32 16 – Construction Progress Schedule
8. Section 01 71 33 – Protection of Adjacent Construction
9. Section 01 52 13 – Field Offices
10. Section 01 77 00 – Closeout Procedures

1.02 CONTRACTOR'S RESPONSIBILITIES

A. Mobilization shall include the obtaining of permits (exclusive of actual permit fee payments), preparing and furnishing specified submittals, moving onto the Site all equipment necessary for the Work; furnishing and erecting plants, temporary buildings, and other construction facilities; and implementing security requirements; all as required for the proper performance and completion of Work.

All safety-related work items, including all work items related to COVID-19, shall be paid under the Bid Item **CONTRACT SAFETY REQUIREMENTS**.

B. Prior to the mobilization of all plant, equipment, offices or temporary facilities to the Site, the Contractor and City Representative shall jointly perform a site survey of the existing conditions per the requirements of Section 01 71 33.

1. The survey shall include but not be limited to:

   a. Photographs duly annotated

   b. Sketches, measurements and notes

   c. A guided tour to be performed by the City's Bureau of Environmental Management Project Manager to identify sensitive habitat as defined in the Contract Documents and in the Environmental Impact Report

   d. Areas which are to be disturbed and restored

   e. Adjacent properties

   f. Condition of streets and access route to the site

   g. Trees, shrubs, lawns, walks, pavement, roadways, structures or signs, and utilities not indicated to be removed, relocated and replaced

   h. Mobilization items requiring physical work at the construction site shall not proceed until the site survey has been completed

C. Mobilization shall include, but not be limited to, the following principal work items:

1. Attending pre-construction meeting

2. Signing all Contract Documents necessary to proceed

3. Submitting pre-construction submittals, including construction schedule, CPM schedule, submittal schedule, joint survey to establish authenticity of possible claims, schedule of values, and others as specified

4. Mobilizing and moving onto site the Contractor's plant, equipment, tools, materials and labor required for the first sixty days of work

5. Assigning the Contractor's Project Manager and/or Project Superintendent, and the Contractor's Site Safety Representative to be present at the Project site full time, following Notice to Proceed

6. Obtaining and paying for all required insurance and bonds

7. Installing temporary construction power, wiring, and lighting facilities

8. Developing and installing construction water supply, including fire protection system, and paying any required deposit

9. Providing on-site sanitary facilities and potable water facilities

10. Arranging for and erection of any Contractor's work and storage yard and off-site parking

11. Posting all OSHA-required notices and establishing safety programs as defined in Contractor's Cal-OSHA approved Safety Program

12. Performing and documenting joint survey of existing conditions, if required by portions of the Contract Documents other than Section 01 71 33

13. Fabricating and erecting project signs, construction area signs, traffic handling and detour signs, and temporary traffic control devices

14. Providing submittal of the Contractor's Site-Specific Health and Safety Plan.

15. Preparing all plans and training required by Sections 01 41 00 and 01 35 43 that are required prior to Work beginning on the site

16. As specified in Section 01 52 13, providing Contractor's field office(s) and providing and maintaining City Representative's field office(s).

17. Providing on-site communication facilities, including telephones

18. Constructing and implementing safety and security features and requirements complying with SFPUC and Contractor safety and security programs

19. Installing any exclusion fencing required by the Documents and the Environmental Impact Report

20. Time and labor associated with obtaining of permits, exclusive of actual permit fee payments

D. Demobilization shall include, but not be limited to, the following principal items:

1. Demobilizing and removal of the Contractor's facilities and equipment

2. Removing all project signs from project site, and removing all construction area signs, traffic handling and detour signs, and temporary traffic control devices from project vicinity

3. Removing all temporary construction facilities including Contractor's and City Representative's field office(s) and other equipment and utilities from

the site as Contractor's property within 14 calendar days after the date of Final Completion; cleanup of all debris and restoring the site as specified

4. Furnishing all required equipment installation certification forms, warranty documents and Operations and Maintenance ("O&M") data and manuals and spare parts, special tools, and keys

5. Performing all required training sessions

6. Performing and submitting all manufacturer installation checkouts

7. Furnishing all information and completing all formalities required by the San Francisco Contract Monitoring Division ("CMD")

8. Preparing and submitting all final documents, including certified payroll, and other records of payments to suppliers and subcontractors, and lien releases/claims waivers needed to close the contract within the time requirements

9. Furnishing the Contractor Final Updated Construction Drawings (Record Drawings)

10. Furnishing to the City post-construction pipeline TV tapes and logs (pipeline projects only)

11. Providing signoffs from affected property owners and permitting agencies confirming that their requirements have been met

12. Completing all specified closeout requirements

13. Requesting final payment

1.03 PAYMENT PROCEDURES

A. The retention of funds provisions of Article 9 of the General Conditions shall apply to the sum of all the Contract Work completed, including that under the Bid Item "Mobilization" and the Bid Item "Demobilization."

B. Any extension of the Contract Time that may be granted shall not of itself constitute grounds for a claim for additional payment under the Bid Item "Mobilization."

C. Payment for "Mobilization" and "Demobilization" and City Representative's field offices(s) shall be the fixed and/or lump sum amounts shown in the Schedule of Bid Prices.

1.04 PROJECT-SPECIFIC REQUIREMENTS

A. ***Not Used.***

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 24 13

VALUE ENGINEERING

PART 1 – GENERAL

1.01 SUMMARY

A. Contractor may develop and offer written Value Engineering Change Proposals ("VECPs") to modify the plans, specifications, or other requirements of the Contract Documents relating to an Item, type of construction, or process for Work that result in reduced construction costs. The modification(s) proposed shall not impair, in any manner, the essential functions or characteristics of the Project including, but not limited to, service life, economy of operation, ease of maintenance, desired appearance, impacts on utilities and rights of way, design and safety standards, performance criteria of the original design, and impacts on the public or to the environment during and after construction. The City shall be the sole judge of the acceptability of a VECP and of the estimated net savings in construction costs from the adoption of all or any part of a VECP. The City will share with Contractor the net cost savings that result from an approved VECP.

B. Bid prices shall not be based on the anticipated approval of a VECP. VECPs shall be submitted, if at all, only by the successful bidder after contract award.

C. If the City rejects a VECP, Contractor shall complete the Work in accordance with the Contract Documents, with no adjustment to the original Contract Sum. Any delay to the project due to a VECP submittal and review shall be considered within the Contractor's control and will be non-excusable with the exception of those delays that are approved as part of the VECP.

D. Related Documents and Sections:

1. Section 01 42 00 – References

E. Only those VECPs that present a minimum potential contract savings amount shall be considered by the City. Refer to Article 1.03.A.1.a of this Section.

1.02 SUBMITTAL OF VALUE ENGINEERING CHANGE PROPOSALS

A. Contractor may submit either a Final VECP or a preliminary Conceptual VECP, followed by a Final VECP.

B. **Submittal of Conceptual VECP**. For a VECP that requires a significant amount of design or other development resources, the Contractor may submit an abbreviated Conceptual VECP for preliminary evaluation by the City. The City

will advise Contractor in writing if any conditions or parameters of the Conceptual VECP are found to be grounds for rejection. Preliminary review of a Conceptual VECP reduces the Contractor's risk of subsequent rejection of a full VECP by the City, but does not commit the City to eventual approval of the full VECP. Contractor shall submit the following information with each Conceptual VECP:

1. Statement that the proposal is submitted as a Conceptual VECP.

2. General description of the difference between the existing Contract requirements and the proposed change, and the advantages and disadvantages of each.

3. One set of conceptual plans and a description of proposed changes to the Contract specifications.

4. Estimate of the anticipated cost savings and impact on Baseline CPM Construction Schedule.

5. Statement specifying (a) when a response to the Conceptual VECP from the City is required; (b) the amount of time necessary for Contractor to prepare a Final VECP; (c) the date by which a Change Order implementing a Final VECP would have to be executed to obtain maximum benefit from the proposal.

C. **Submittal of Final VECP**. Contractor shall submit the following information with each Final VECP.

1. A statement that the proposal is submitted as a Final VECP.

2. A detailed description, including written narrative, of the difference between the existing Contract requirements and the proposed change, and the advantages and disadvantages of each.

3. An itemization of the Contract requirements that must be changed if the VECP is adopted, including identification of specification section(s) and drawing number(s) affected.

4. If deemed appropriate by the City, design calculations including criteria, methodology, checked (signed) calculations, conclusions, and cover sheets signed and stamped by a professional engineer licensed in the state of California in the appropriate discipline.

5. A cost comparison, summarizing all of the items that the proposed VECP replaces, reduces, eliminates, adds, or otherwise changes from the original Contract work, including all impacts on other Work that may be affected by the proposed change (e.g., changes to power requirements or other support facilities, auxiliary equipment, or structural modifications). The

cost comparison shall not include cost savings resulting from purportedly decreased inspection or testing requirements, or City overhead. Cost estimates shall be prepared in the same manner as a COR Cost Proposal as provided in Article 6 of the General Conditions, and shall be documented by Contractor.

6. A statement specifying (a) the date by which a Change Order implementing the VECP, if adopted, must be executed to obtain the maximum cost reduction during the remainder of the Contract Time; and (b) the date when a final response from the City regarding the VECP is required to avoid delays.

7. A statement detailing the effect the VECP, if adopted, would have on the Baseline CPM Construction Schedule.

8. A description of any previous use or testing of the proposed changes and the conditions and results, including the date(s) of installation. Provide contact information (i.e., name, address, email and phone number) for licensed professional engineer(s) with knowledge about such projects. If the changes proposed in the VECP were previously submitted on another City project, the VECP shall indicate the date, Contract number, and the action taken by the City. Contractor will not receive incentive compensation for VECPs previously accepted by the City for other projects.

9. If deemed appropriate by the City, a statement of life cycle costs. Life cycle costs will not be considered as part of cost savings but shall be calculated where appropriate for additional support of the VECP. A discount rate of four percent shall be used for life cycle cost calculations.

10. A certification by Contractor that: (i) the VECP contains no restrictions imposed by the Contractor on its use or disclosure; (ii) Contractor will coordinate the VECP, if accepted, into the Work and make such other changes as required to complete the Work in accordance with the Contract Documents and applicable regulatory requirements; (iii) Contractor waives claims for additional costs and/or time extensions associated with the VECP (if approved) which may subsequently become apparent; and (iv) Contractor agrees not to hold the City liable for the City's decision regarding the acceptability of the VECP or for any delays to the Work attributable to the VECP.

D. Contractor shall submit Conceptual VECPs (if Contractor elects to submit a Conceptual VECP) and Final VECPs (excluding associated samples and oversized drawings) electronically to the City. Attachments to a VECP must be in PDF format using the latest version of Adobe Acrobat Pro. Resolution shall be such that the finest detail must be legible at full scale on a monitor. Attachments and supporting information that can not be submitted electronically shall be listed

in the VECP and submitted to the City Representative on the same day the VECP is transmitted electronically to the City. A hard copy of the VECP shall accompany all hard copy or physical attachments.

1.03 EVALUATION OF VECP BY CITY; CONDITIONS AND RESTRICTIONS

A. The City will receive, consider and evaluate a Contractor's VECP only under the following conditions as determined by the City. VECPs will not be construed as submittals as described in Section 01 33 00.

1. The City, in its sole judgment, will determine if a VECP qualifies for consideration and evaluation. The City may reject any VECP that requires excessive time or costs for review, evaluation, or investigation, or that does not generate sufficient costs savings or other benefits to warrant review. The City may reject VECPs that are not consistent with the City's design, criteria, and schedule for the Project.

   a. Before the City will consider any VECP, the City must determine, in its sole judgment, that implementation of the VECP would result in a total contract savings of more than $100,000.00, reflecting a savings of at least 50000 for the City.

2. The provisions of this Section 01 24 13 shall not be construed to require the City to consider any VECP which may be submitted by Contractor. The City will not be liable to Contractor for failure to accept or act upon any VECP submitted pursuant to this Section nor for any delays to the Work attributable to any such VECP.

3. The City may request additional information needed to evaluate a VECP. Contractor shall provide such information in a timely manner, as specified in the City's request. Untimely submittal of additional information will result in the rejection of a VECP.

4. Prior to approval of a VECP, the City may modify a VECP, with the concurrence of the Contractor, to enhance it or make it acceptable. The City has no obligation to modify a submitted VECP to make it acceptable, and the burden of proof as to the type, function, and quality of a proposed value engineering change shall at all times remain with Contractor. If any modification to a VECP increases or decreases the net savings resulting from the VECP, the Contractor's share of the net savings shall be determined upon the basis of the modified VECP.

5. The City will be the sole judge of the acceptability of a VECP and of the estimated net savings in construction costs from the adoption of all or any part of the VECP. In determining the estimated net savings, the City reserves the right to disregard the contract prices if, in the judgment of the City, such prices do not represent a fair measure of the value of the work to be performed or deleted.

6. The City's decision to reject a VECP is final and there is no appeal. Contractor shall have no claim against the City for additional costs or delays resulting from the rejection or untimely acceptance of a VECP. These costs include but are not limited to development costs, loss of anticipated profits, and increased material or labor costs.

7. If a VECP is similar to a change in the plans or specifications under consideration by the City for the Project at the time said VECP is submitted or if such VECP is based upon or similar to standard specifications, standard special provisions or standard plans adopted by the City after the advertisement of the Contract, the City will reject such VECP and the City reserves the right to make and implement such changes without compensation to Contractor under the provisions of this Section.

8. The City will reject a VECP if: (i) the proposed change(s) is indicated or implied on submittals without a formal request from Contractor as required by this Section, regardless of whether or not the submittal is approved by the City; or (ii) it addresses Work that has been started, installed or completed that does not meet the requirements of the Contract Documents; or (iii) it is requested directly by a Subcontractor or Supplier; or (iv) it only proposes reducing or eliminating Contract pay items; or (v) equivalent options are already provided in the Contract.

9. VECPs shall not be the basis for extra charges above the Contractor's Bid Price for the Work. Accepted VECPs shall not extend the Contract Time unless such an extension is specifically provided for in the implementing Change Order.

10. Contractor's costs for developing and preparing a VECP, including related design and engineering costs, are not eligible for reimbursement by the City.

11. The City, at its sole discretion, may require Contractor to pay for all or part of the City's cost of investigating, evaluating and implementing a VECP as a condition for considering such VECP. Such costs include but are not limited to the cost of making all mechanical, electrical, structural, utility or other changes required to accommodate the proposed VECP. If the City imposes this condition, the Contractor shall indicate its acceptance in writing, and the acceptance shall constitute full authority for the City to deduct amounts payable from any monies due or that may become due to the Contractor under the Contract.

12. A VECP shall contain no restrictions imposed by Contractor on its use or disclosure. The City has the right to use, duplicate and disclose in whole or in part any data in a VECP necessary for the evaluation and use of the VECP. The City expressly reserves the right to use all or any part of an

accepted VECP for general use on other contracts administered by the City without obligation or compensation of any kind to Contractor except as noted in Paragraph 1.04, below. If the City adopts an accepted VECP for general use, only the Contractor who submitted the first VECP will be eligible for incentive compensation under this Section. Contractor will be awarded the incentive compensation only for this Contract.

13. Contractor may request the return of information submitted with a VECP if the proposal is rejected by the City. Such request shall be in writing and submitted with the VECP. If the VECP is accepted, such request shall be void and the City may use or disclose in whole or in part any information necessary to utilize the VECP.

14. Unless otherwise directed by the City, Contractor shall continue to perform the Work in accordance with the requirements of the Contract Documents until a Change Order incorporating the VECP has been approved. If a Change Order has not been approved by the specified date in the Contractor's VECP, the VECP shall be deemed rejected unless the decision date has been extended by mutual agreement of the parties. The City will take no responsibility for any actions taken by Contractor or its Subcontractors or Suppliers associated with or related to a VECP unless and until a Change Order implementing the VECP has been approved.

15. If the City elects to review and evaluate a VECP, the City will notify the Contractor in writing of acceptance or rejection of the VECP within 30 days of receipt of the VECP.

1.04 IMPLEMENTATION OF ACCEPTED VECP; BASIS OF INCENTIVE PAYMENT

A. If a VECP is accepted in whole or in part by the City, the acceptance will be implemented by Change Order. Contractor shall prepare and submit a Change Order Request in accordance with the General Conditions within 5 working days of the City's approval or partial approval of a VECP.

B. A Change Order implementing a VECP must specifically state that it will be executed pursuant to this Section 01 24 13 so that the City may track cost savings associated with its value engineering program.

C. A Change Order implementing a VECP will incorporate the necessary changes in the plans and specifications and will include any conditions upon which the City's approval is based, if appropriate. The Change Order will include the price for performing the Work affected by the Change Order and the estimated net savings in cost of performing the Work attributable to the VECP. The amount specified in the Change Order shall constitute full compensation to the Contractor for the VECP and the performance of the work related to the VECP.

D. Change Orders implementing VECPs are subject to the SFPUC Commission approval requirements set forth in Section 6.22(H) of the San Francisco Administrative Code, when applicable.

E. The net savings in the cost of performing the Work attributable to the VECP will be shared equally by the City and Contractor. Contractor will be paid its 50 percent share of the actual net savings when the City has accepted the Work attributable to the VECP.

1.05 PROJECT – SPECIFIC REQUIREMENTS

A. ***Not Used***.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 25 13

PRODUCT SUBSTITUTION PROCEDURES

PART 1 – GENERAL

1.01 SUMMARY

A. This Section includes administrative and procedural requirements for processing Contractor's Requests for Substitution of products or equipment made after the Award of the Contract.

B. Related Documents and Sections:

1. Section 00 49 18 – Request for Substitution

2. Section 00 72 00 – General Conditions, Article 3.12

3. Section 01 42 00 – References

4. Section 01 33 00 – Submittal Procedures

1.02 DEFINITIONS

A. Substitution: The proposed change by the Contractor after the Award of the Contract of a product, equipment, or service required by the Contract Documents is considered to be a Request for Substitution. The following are not considered to be Requests for Substitution:

1. Substitutions requested during the Bid period, and accepted by Addendum prior to Award of the Contract.

2. Revisions to the Contract Documents requested by the City Representative.

3. Specified options of products and construction methods included in the Contract Documents.

4. The Contractor's determination of and compliance with governing regulations and orders issued by governing authorities.

B. Where the terms "or equal," or "or approved equal," or similar references are used, submittal of a Request for Substitution Section 00 49 18 is required for products or manufacturers not specifically indicated in the Specifications.

1.03 REQUIREMENTS

A. The Contractor's Total Bid Price for the Work of this Contract shall be based on products, equipment and services listed by manufacturer's or supplier's name in the Technical Specifications.

B. Substitution requests shall not be the basis for extra charges above the Contractor's Bid Price for the Work, nor shall they be the basis for an increase in Contract time.

C. The Contractor shall bear the cost of making all mechanical, electrical, structural, utility, or other changes required to accommodate the proposed substitution, including the City Representative's costs required to review the substitution.

D. Substitutions described in this Section shall not be construed as submittals as described in Section 01 33 00.

E. 50 percent of any cost savings resulting from an accepted Substitution Request shall be credited to the City. The total cost savings shall be less any design costs required for substitution implementation.

1.04 SUBMITTALS

A. The City Representative will consider Requests for Substitution if received within thirty-five (35) calendar days after the date of the Award of the Contract.

1. Requests received more than 35 days after Award of the Contract may be considered or rejected at the sole discretion of the City.

2. The Contractor shall submit Requests for Substitution to the City Representative, on the City's approved Request for Substitution Form.

B. The Contractor shall provide complete supporting data identical to that required for the product, equipment, or service originally specified, including drawings, samples, literature or detailed information sufficient to demonstrate that the proposed substitution is equal, or greater, in quality and utility to the product, equipment, or service originally specified. The following additional information shall also be submitted:

1. Information regarding the effect of the substitution, if any, on the Construction Schedule.

2. Name and address and Licensed Professional Engineer contact information of similar projects on which the substituted product, equipment, or service has been used, and date of installation.

3. Signed statement that the proposed substitution is in full compliance with the Contract Documents; or, written direction of the City.

4. List of other work, if any, which may be affected by the substitution.
   a. Provide complete details regarding changes in requirements for power or other support facilities, auxiliary equipment or structural modifications.
   b. The Contractor shall be responsible for the effect of a substitution upon related work, and pay the additional costs generated thereby to implement the substitution, including the engineering design services associated therewith.
5. Information on availability of maintenance service and source of replacement materials.
6. Sample of manufacturer's standard form of warranty or guarantee for the proposed substitution.
7. Itemized comparison of proposed substitution with product, equipment, or service specified with significant variations identified.
8. Include accurate cost data comparing proposed substitution with product, equipment, or service specified and amount of net change in Contract Sum.
   a. Include costs to other contractors and subcontractors and costs for revisions to Drawings, Details or Specifications.
   b. Indicate amount to be deducted from Contract Price if Substitution Request is accepted.

C. Manufacturer’s Product Modifications: The Contractor may submit a Request for Substitution in accordance with this Section if the specified product, equipment, or service has been modified or improved by the manufacturer. If approved, the substitution shall be at no additional cost to the City and shall be subject to the cost savings provisions specified herein.

D. The City will receive and consider Contractor’s Requests for Substitution only under the following conditions as determined by the City. If the following conditions are not satisfied, the City Representative will return the request without action except to record noncompliance with the requirements.

1. The burden of proof as to the type, function, and quality of proposed substitutions shall be upon the Contractor.
2. The City will determine the quality and utility of the Contractor’s proposed substitutions. The City's decision shall be final.
3. The City may require the Contractor to furnish at the Contractor's own expense, a special performance guarantee or other surety with respect to any substituted product, equipment, or service.

4. Extensive revisions to the Contract Documents are not required.

5. The substitution requested is consistent with the general intent of the Contract Documents.

6. The request is timely, fully documented, and properly submitted.

E. Substitutions will not be considered for acceptance when:

1. They are indicated or implied on submittals without a formal request from the Contractor, regardless of whether or not the said submittal is approved by the City.

2. They are requested directly by a subcontractor or supplier.

F. Substitutions required by inability to obtain products, equipment, or services specified will not be acceptable grounds for increase in Contract Sum or Contract Time.

G. Substitute products, equipment or services shall not be ordered or released for fabrication without written acceptance by the City.

1.05 QUALITY ASSURANCE

A. The Contractor shall certify with each Request for Substitution that it:

1. Has investigated the proposed substitution and determined that it is equal to, or superior to the product, equipment, or service specified;

2. Will furnish the same warranty/guarantee or bond for the proposed substitution as for the product, equipment, or service specified;

3. Will coordinate the installation of an accepted substitution into the Work and make such other changes as required to complete the Work in accordance with the Contract Documents and applicable regulatory requirements;

4. Waives claims for additional costs and/or time extensions associated with the substitution, which may subsequently become apparent; and

5. Will pay costs of changes to Contract Documents required by accepted substitutions.

1.06 CITY'S ACTION

A. All substitutions shall require written approval by the City.

B. The City's approval of any substitution shall not relieve the Contractor from compliance with all other requirements of the Contract Documents and for adequacy of the substituted items.

C. The City will review Requests for Substitution and notify the Contractor in writing within 30 days of receipt of a substitution request of acceptance or rejection of proposed substitutions. The following provisions shall apply:

1. The City will determine whether or not a product, equipment, or service is equal for the purpose intended in quality and utility to that specified.

2. The decision of the City on all such questions of equality and acceptability of proposed substitutions shall be final.

3. No claim of any sort shall be made or allowed against the City as a result of any final decision to accept or reject any proposed substitute product, equipment, or service.

1.07 PROJECT-SPECIFIC REQUIREMENTS

A. ***Not Used***.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 29 73

SCHEDULE OF VALUES

PART 1 – GENERAL

1.01 SUMMARY

A. Section includes: Submittal requirements, coordination, review and acceptance of the schedule of values for evaluating progress payment applications.

B. Related Documents and Sections:

1. Section 01 20 00 – Price and Payment Procedures
2. Section 01 31 19 – Project Meetings
3. Section 01 33 00 – Submittal Procedures
4. Section 01 32 16 – Construction Progress Schedule

1.02 SUBMITTAL REQUIREMENTS

A. Submit within 30 consecutive calendar days after Notice to Proceed.

1.03 COORDINATION

A. Coordinate the preparation of the schedule of values with Contractor's progress schedule.

1. The Schedule of Values shall be developed from the resource loading function of the Baseline CPM Progress Schedule as specified in Section 01 32 16 – Construction Progress Schedule.
2. The Contractor shall prepare and submit a detailed Schedule of Values to the City Representative coordinated with the Baseline CPM Progress Schedule submittal.
3. An unbalanced Schedule of Values providing for early overpayment to Contractor on lump sum work will not be accepted.

B. Coordinate the preparation of the Schedule of Values with Contractor's Application for Payment.

1. The Schedule of Values shall be coded to the Schedule of Bid Prices in sufficient detail to facilitate continued evaluation of progress payment

applications and submitted to the City Representative for approval prior to the first Application for Payment.

2. In addition to construction work items that have definable quantity scope values, the Schedule of Values shall include other discrete items of work including but not limited to mobilization, administration, material procurement, final cleaning, operations and maintenance manuals, start-up, and adjusting and testing. The Schedule of Values shall indicate each item's relationship to activities in the Baseline CPM Progress Schedule.

C. The Schedule of Values shall be coded such that the sum of the Schedule of Values roll up to, and be in balance with, each lump sum bid item.

D. The Schedule of Values shall be updated to reflect all approved Change Orders prior to the next scheduled submission of the Monthly Schedule update and Application for Payment.

1.04 REVIEW AND ACCEPTANCE

A. The City Representative shall review and return Contractor's Schedule of Values with comments within 10 working days of its receipt. Contractor shall make corrections requested by the City Representative and resubmit for approval within 5 working days.

B. Final acceptance by the City Representative shall indicate only consent to the Schedule of Values as a basis for preparation of applications for progress payments and shall not constitute an agreement as to the value of each indicated item.

C. No payments for any bid item other than the Mobilization shall be made nor shall the City Representative accept any change order requests until the detailed Schedule of Values is submitted and accepted as required herein.

1.05 PROJECT-SPECIFIC REQUIREMENTS

A. ***Not Used***.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 31 00

PROJECT MANAGEMENT AND COORDINATION

PART 1 – GENERAL

1.01 SUMMARY

A. This Specification Section establishes the Contractor's Project Management and Coordination responsibilities.

B. Related Documents and Sections include:

1. Section 01 31 19 – Project Meetings
2. Section 01 33 00 – Submittal Procedures
3. Section 01 32 16 – Construction Progress Schedule
4. Section 01 78 39 – Project Record Documents

1.02 PROJECT MANAGEMENT

A. During the term of this Contract the Contractor shall maintain a management team which consists, as a minimum, of a Project Manager and Project Superintendent.

B. The Contractor's Project Manager shall be the duly authorized representative of the Contractor on the Project. The Project Manager shall be authorized to sign all project documents. The Contractor shall provide a description of the role and responsibilities of the Project Manager.

C. The Contractors Superintendent shall be responsible for the daily management of the project activities and shall be full time at the Project site. The Contractor shall provide a description of the role and responsibilities of the Project Superintendent.

D. Depending on the size and complexity of the project the Contractor shall maintain a management team including the following functions:

1. Quality Control
2. Site Safety
3. Testing Coordination
4. Scheduling

E. The Contractor shall demonstrate to the City the qualifications and relative experience for each person charged with the above responsibilities. Refer to the appropriate specification sections for a description of the roles, responsibilities, and minimum qualifications for these individuals.

1.03 GENERAL COORDINATION

A. Contractor shall be responsible for all project coordination. The Contractor shall coordinate the work to complete it in accordance with the Contract requirements including:

1. Coordinate the work of Contractor's employees and subcontractors to assure compliance with the schedule.

2. Coordinate the work with the City Representative to minimize impact on City's operations.

3. Coordinate work with utility companies and other contractors on site and adjacent to site through the City Representative.

4. Coordinate work with the oversight of the appropriate regulatory or permitting agencies. Discuss coordination plans with the City Representative prior to execution to determine if coordination will be performed through the City Representative.

B. Coordinate scheduling, submittals, and work of various sections to assure efficient and orderly sequence of installation of interdependent construction elements.

C. Verify that utility requirement characteristics of operation equipment are compatible with building utilities. Coordinate work of various specification sections, subcontractors, suppliers, and trades having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.

1.04 DUTIES OF CONTRACTOR'S MANAGEMENT TEAM

A. Contractor's Project Management responsibilities extend to the completion of the Project in accordance with the Contract but shall include, but not be limited to the following:

B. Communications with the City Representative, including:

1. Notices of Delay

2. Notices of differing site conditions

3. System Outage requests

4. Contract changes

C. Maintain approved Construction CPM Schedule as required by the Contract.

1. Provide "Four weeks look ahead" schedules

a. The schedule shall be prepared in the form of a bar chart breaking down activities on the CPM schedule into detailed subtasks. Subtasks shall identify related activity on the construction schedule and responsibility for completion of the subtask.

b. Notify the City Representative in writing of any deviation from the plan, within 24 hours of said deviation.

c. Indicate inspections by the Contractor Quality Control, City Representative, or regulatory agencies.

2. Update CPM Baseline Schedule

a. Identify potential variances between schedule and probable dates for each activity.

b. Take corrective action to meet the required completion dates.

c. Document changes in schedule and submit these changes to the City Representative and to subcontractors and suppliers involved. Contractor should submit any changes in the CPM Baseline schedule to the City Representative for review.

d. Verify that labor and equipment are adequate to complete work within the time allowed.

e. Verify that product procurement is adequate to complete work in time allowed.

f. Report problems with recommendations for correction to the City Representative.

D. Coordinate shop work with site work

E. Maintain site safety including public safety and control of traffic.

1. Secure from the general public all construction areas which could endanger their safety.

2. Maintain safe access to public areas.

F. Daily monitor site clean-up and security.

G. Obtain all necessary permits

H. Maintain reports and records at the jobsite and make them available to the City Representative

I. Daily Log of progress of the work.

J. Implement a Quality Control Plan as required by the Contract

K. Records to include but not be limited to:

1. Correspondence to and from the City Representative

2. Request for Information

3. Monthly Updated Construction Drawings

4. Contracts, subcontracts and Purchase Orders

5. Permits

6. Materials and Equipment records.

7. Submittals

8. Manufacturers' instructions

9. Certificates of Compliance

10. Test procedures, records, and reports

11. Obtain information from subcontractors and maintain a file of record documents

L. Conduct Safety Meetings in accordance with Section 00 73 19.

M. Maintain at the place of fabrication or manufacture, and make available to the City Representative, record copies of all submittals, including shop drawings and product data, certificates of compliance, and shop test reports pertaining to the manufacture and fabrication.

N. Coordinate and arrange for locating and identifying unknown utilities and providing protection of utility facilities, and relocation, connection and installation of utilities. If during the course of the work, an unexpected or unidentified utility interference is discovered, the Contractor shall immediately call this fact to the attention of the City Representative.

O. Contractor shall coordinate with the City Representative to minimize conflict with and to facilitate ongoing system operations.

P. Mobilize and direct workers and equipment as needed for emergency work.

Q. Maintain cost accounting records for work authorized under unit cost force account or other approved basis requiring accounting records.

R. The Superintendent shall have the responsibilities and perform the duties of a supervisor as defined by the San Francisco Public Utilities Lockout/Tagout program

1.05 COORDINATION DRAWINGS AND SUBMISSION

A. Prepare coordination drawings before beginning fabrication or delivery of materials and equipment to the job site.

B. Coordination drawings shall clearly indicate coordination of mechanical, plumbing, electrical, lighting, communication, life safety, instrumentation and controls, conveying systems, equipment installations, structural, architectural, and finish work.

C. Coordination drawings shall generally be plan view, but three dimensional and elevation views shall be developed as necessary to further investigate conflicts and to coordinate work. Provide dimensions and elevations data.

D. Coordination drawings shall show layout of work for all trades for purposes of showing overlays, utility services provided to equipment, spatial requirement and availability, spatial clearances, potential conflicts, and coordination of work. The layout shall include existing facilities and planned new work.

E. Routing shown for pipes, ducts, and conduits on Contract Drawings are shown by graphic symbols only; make runs parallel with lines of building.

F. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.

G. Conceal pipes, ducts, conduits, and wiring in finished areas, unless otherwise indicated. Coordinate locations of fixtures and outlets with finish elements. Keep copies of coordination drawings at the job site.

H. Update coordination drawings as necessary.

I. Provide the City Representative with a record copy of initial coordination drawings, and with revisions to coordination drawings, within 2 working days of completion of each drawing or revised drawing. The City Representative will verify that coordination drawings have been made, but no approval review of these drawings will be made. Include in submission of drawings the names of coordination staff.

J. When requested by City Representative Concrete Lift drawings shall be provided.

1.06 REQUEST FOR INFORMATION (RFI)

A. The Contractor shall review Contract Documents a minimum of 30 calendar days in advance of the work to be executed, and to request information so that the City

will have sufficient time to respond to RFIs prior to the start of actual construction of that part of the work to which the RFI relates, as well as any consequential work affected by the information requested.

B. RFI Submittal Requirements:

1. Separate submittals of RFIs should be used for separate topics.

2. All information required by the RFI transmittal form shall be provided by the Contractor.

3. If the City requires more than 10 working days to review an RFI, the City Representative will inform Contractor and request additional time to prepare the reply. Contractor shall cooperate and agree to a reasonable time extension.

4. An RFI shall be rejected if the City Representative determines it is not in compliance with the requirements of the Contract.

5. The City's response to an RFI may be in the form of a Clarification or Field Order.

6. The completed transmittal form with all attachments shall be the written record of each RFI.

C. Additional Electronic-only RFI Submittal Requirements:

1. The Contractor shall submit RFIs to the City Representative electronically. The City shall provide the Contractor access to the City's Construction Management Information System ("CMIS") for transmitting all RFIs.

   a. All attachments to the RFI transmittal form in the CMIS shall be in PDF format using latest version of Adobe Acrobat.

   b. Resolution shall be such that finest detail must be legible at full scale on a monitor.

   c. Attachments that cannot be submitted electronically shall be listed in the RFI transmittal and delivered to the City Representative on the same day as the transmittal is made in the CMIS. Any hardcopy or physical attachments shall be submitted with a hardcopy of the RFI transmittal.

2. The City Representative shall provide a response to all RFIs electronically in the CMIS within 10 working days of receipt in accordance with the General Conditions.

D. Uses of RFIs:

1. The RFI shall be used for interpretation or clarification of the Contract Documents only.

2. The RFI form shall not be used for the following. The City will not reply and will reject the RFI:

a. Substitution of, or deviation/variance from, contract work.

b. Questions relating to construction means, methods, techniques, sequences, procedures, or safety precautions.

c. Questions relating to construction schedule, coordination between trades, or division of work among subcontractors.

d. Questions on contract administration procedural matters, unless they require interpretation or clarification of the Contract Documents.

e. Dimensions or quantities which are shown on the Contract Documents, or which can be measured from the building, or calculated from the information contained in the Contract Documents.

f. Confirmation of interpretations or clarifications previously provided by the City

g. Interpretations or clarifications of the Contract Documents, which can reasonably be derived from a review of the Contract Documents

1.07 CONSTRUCTION MANAGEMENT INFORMATION SYSTEM

A. The City has developed a Construction Management Information System ("CMIS") for collaboration with the Contractor for various management functions, including Submittals; Requests for Information; Punch Lists; Change Initiation and Management; progress payments; correspondence and meeting minutes; and environmental compliance reporting.

B. The Contractor is required to use the CMIS system to interface with the City for these functions. The City will provide access to the CMIS and systems support for initial setup to the Contractor. The City shall provide training and two Users Manuals to the Contractor. The Contractor shall provide personal computers for the Contractors use with, in coordination with City Representative on latest or recent version of, Windows operating system, with sufficient processing capacity to efficiently operate the software within 5 working days after mobilization of the Contractor's field office.

C. Training and orientation shall be scheduled with the Contractor by the City Representative within 10 working days after Contractor has provided required computer systems and completed initial systems set up. Training is anticipated to require one full working day and shall include the Contractor's key on-site

management and administration staff who will be involved in the execution of the CMIS functions.

1.08 PROJECT-SPECIFIC REQUIREMENTS

A. ***Not Used***.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 31 19

PROJECT MEETINGS

PART 1 – GENERAL

1.01 SUMMARY

The City Representative will arrange project meetings after consultation with Contractor and will inform the Contractor of the meeting time and location. The Contractor's attendance is required at all meetings.

A. Section includes the following topics with their respective Article Nos. listed alongside:

1.	Pre-Construction Conference	1.02
2.	Site Mobilization Conference	1.03
3.	Progress Meetings	1.04
4.	Pre-Installation Conferences	1.05
5.	Project-Specific Requirements	1.06

B. Related Documents and Sections:

1. Section 00 73 19 – Health and Safety Requirements
2. Section 01 77 00 – Closeout Procedures

1.02 PRE-CONSTRUCTION CONFERENCE

A. After award of the Contract and after the Notice to Proceed Date, but prior to commencement of work, the City Representative will schedule and conduct a pre-construction conference at a time and location selected and arranged with the Contractor.

B. Contractor shall be prepared to review and discuss the Baseline construction schedule and sequence of the Contractor's operations.

1. The conference shall be attended by:
   a. Contractor and its General Superintendent

b. All authorized representatives of subcontractors or suppliers whom Contractor may desire to invite or whom the City Representative may request

2. The City Representative may invite representatives from the following agencies to attend:

a. The Project Team, Operations Representatives, Safety Officer and Contract Compliance Officers.

b. The City's Environmental Consultants, as appropriate.

c. Utility Companies

d. Regulatory agencies

e. Other interested agencies.

C. Agenda may include:

1. Key personnel and organizations involved: Relationships, roles, responsibilities and authorities.

2. Interface with Operations: Coordination of system outages (shutdowns), security, site access, test and start-up activities, and training, among others.

3. Contractor's presentation: Contractor's plans, methods and schedules for accomplishing the contract work.

4. Contract technical requirements: Technical concerns and considerations, including test and start-up requirements, inspection and observations requirements, and requests for substitutions, among others.

5. Safety requirements and considerations including the submittal of the Contractor's Health and Safety Plan ("HASP").

6. Contract compliance requirements: Wage rates, labor reporting and certified payroll records.

7. Contract administration requirements and procedures:

a. Correspondence

b. Weekly progress meetings

c. Progress schedule

d. Submittals and Requests for Information

e. Requests for Deviation

f. Inspections and materials testing

g. Environmental monitoring

h. Permits

i. Progress payments

j. Modifications and change order work

k. Time extension

l. Delay

m. Record drawings

n. Operation and maintenance manuals

o. Training

p. Warranty

q. Contract closeout

8. Community relations.

9. Distribution of Contract Documents

D. Minutes of the meeting shall be prepared and distributed by the City Representative within 5 workdays after the conference.

1.03 SITE MOBILIZATION CONFERENCE

A. The City Representative will schedule the Site Mobilization Conference at the Project site prior to Contractor mobilization.

B. Attendance Required: Contractor's Project Manager, superintendent, and major subcontractors.

C. Agenda may include:

1. Use of premises by City and Contractor

2. City's requirements and partial occupancy

3. Construction facilities and controls provided by City and Contractor

4. Temporary utilities provided by Contractor

5. Preconstruction site survey and building layout

6. Security and housekeeping procedures.

7. Schedules

D. Minutes of the meeting shall be prepared and distributed by the City Representative within 5 workdays after the conference.

1.04 PROGRESS MEETINGS

A. The City Representative will schedule, prepare agenda, and record / distribute minutes of progress meetings at weekly intervals.

B. Attendance Required: Contractor's Project Manager, superintendent, major Subcontractors and suppliers, as appropriate to agenda topics for each meeting.

C. Location: To be announced by City Representative

D. Typical Agenda:

1. Review and approval of minutes of previous meeting
2. Review of work progress since previous meeting
3. Contractor's Schedule, including "Look Ahead" Schedule:
   a. Review of off-site fabrication and delivery schedules
   b. Problems which may affect Contractor's Schedule
   c. Corrective measures to regain Contractor's Baseline schedule
   d. Revisions to Contractor's Baseline Schedule
4. Coordination Schedules
5. Interface with Operations
6. Safety and Security
7. Review of submittals schedule
8. Review status of Request for Information
9. Review proposed changes for the following:
   a. Effect on Contractor's construction schedule and completion date
   b. General status of proposed changes
10. Field observations, problems and conflicts
11. Maintenance of quality standards and field corrections
12. Public affairs
13. Contract compliance

14. Environmental issues

15. Housekeeping

16. Status of current progress payment

17. Other business

E. Minutes of the meeting shall be prepared and distributed by the City Representative expeditiously after the meeting.

1.05 PRE-INSTALLATION CONFERENCES

A. When required in individual Specification Sections, the Contractor shall convene a pre-installation conference at work site prior to commencing work of the Section.

B. Require attendance of parties directly affecting, or affected by, work of the specific Specification Section.

C. Provide prior notice to City Representative of meeting date per the Specification Section's advance notification period requirement. Notify City Representative a minimum of 5 workdays in advance of meeting date where notification period is not defined.

D. The Contractor shall prepare agenda, preside at conference, record minutes, and distribute copies within 5 working days after conference to participants, with one copy to the City Representative.

E. Review conditions of installation, preparation and installation procedures, and coordination with related work.

1.06 PROJECT-SPECIFIC REQUIREMENTS

A. ***Not Used***.

'This insert field should include examples of project specific meetings including but not limited to: Partnering, Pre-Job Labor Conference (for contract values equal to or above $5M), Public Affairs, and Material or Equipment Conferences, such as Concrete Conferences to discuss design mixes and proper concrete construction or Process Instrumentation and Control System Pre-submittal Conference to review shop drawing and similar submittals, among others.'

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 31 33

PARTNERING REQUIREMENTS

PART 1 – GENERAL

1.01 PARTNERING LEVEL

A. This Project shall incorporate the required partnering elements for Partnering Level 2.

1.02 SUMMARY

A. This Document specifies the procedures for establishing a collaborative partnering process. The partnering process will assist the City and Contractor to develop a collaborative environment so that communication, coordination, and cooperation are the norm, and to encourage resolution of conflicts at the lowest responsible management level.

B. The partnering process is not intended to have any legal significance or to be construed as denoting a legal relationship of agency, partnership, or joint venture between the City and Contractor.

C. This specification **does not supersede or modify any other provisions of the Contract**, nor does it reduce or change the respective rights and duties of the City and Contractor under the Contract, or supersede contractual procedures for the resolution of disputes, including the submittal of a timely Notice of Potential Claim or Contract Claim.

D. The "San Francisco Partnering Field Guide" is available to the project team as a recommended reference document. This guide provides structure, context and clarity to the partnering process. The guide is available at the City's partnering program website www.sfpartnering.com.

1.03 DEFINITIONS

A. **Partnering Charter ("Charter"):** The Charter is the guiding focus for the project team. It documents the team's vision and commitment to work openly and cooperatively toward mutual success during the life of the project. The Charter helps to maintain accountability and clarity of agreements made and allows for broader communication of the team's distinct goals and partnering process. The Partnering Charter includes the following elements:

1. Mutual goals

2. Partnering maintenance plan

3. Dispute resolution plan with Issue Resolution Ladder

4. Team commitment statement and signatures

B. **City Partnering Fundamentals Training:** Training provided by the City to Contractor and City staff on the fundamentals of partnering. Information may be found at www.sfpartnering.com.

C. **Collaborative Partnering:** A structured and scalable process made up of elements that develop and grow a culture (value system) of trust among the parties of a construction contract. Together, the combination of elements, including the partnering charter, executive sponsorship, partnering meetings, accountability tools for the project team (Scorecards), and facilitator, if employed, create a collaborative atmosphere on each project.

D. **Core Team Partnering:** The project team members who are a part of the project for its duration, including the following (not in order of hierarchy):

City:	Contractor:
Resident Engineer	Superintendent
Project Manager	Project Executive
Construction Manager	Jobsite Supervisor
Engineer, Architect	Project Manager
Division Manager	Project Engineer
Construction Engineer	Subcontractors
Inspectors	Key suppliers
Client Department representative	Senior Management (e.g. Area Manager, Operations Manager, VP, President, Owner)
Critical third parties: stakeholders, other agencies, utilities, etc., or anyone who could potentially stop or delay the project.	

E. **Executive Partnering Team:** The senior leaders of the City and Contractor who may form a project board of directors and are charged with steering the project to success.

F. **Executive Sponsorship:** Commitment to, and support of, the partnering process from the most senior levels of the City and Contractor organizations.

G. **External Facilitator:** The mutually agreed upon experienced professional neutral partnering facilitator whose profession is providing partnering services for construction projects.

H. ***[OPTIONAL PROVISION]* Facilitated Issue Resolution ("FIR"):** An optional, mediation-like Resolution process where the external facilitator (or a mutually selected professional neutral with knowledge of construction) can be used by the team to resolve specific construction disputes. The team will decide during the

kick-off partnering workshop whether they will include the FIR process for that project. If the team elects to use FIR, FIR will become the last step of the Issue Resolution Ladder.

I. **Internal Facilitator:** A trained employee or representative of the City who provides partnering facilitation services for Level 2 or 3 projects.

J. **Issue Resolution Ladder ("IRL"):** A stepped process that formalizes the negotiation between the parties of a construction project. While actual titles may differ, the intent of this ladder is to provide a process that elevates issues up the chain of command between the parties involved in an issue. The objective is to resolve issues at the lowest practical level and to not allow individual project issues to disrupt project momentum. When an issue is escalated one level, it is expected that a special meeting focusing on the negotiated settlement for that issue will be called with the goal of settling as quickly as possible. A sample issue resolution ladder (IRL) is shown below. The IRL will be developed during the kick-off partnering workshop or pre-construction meeting.

Sample Issue Resolution Ladder			
Team Level	Awarding City Department	Contractor	Time to Elevate
I	Inspector or Resident Engineer	Foreman/ Superintendent	1 day
II	Project Manager	Project Manager	1 week
IIII	Program Manager	Area Manager	1 week
IV	Division Manager	Operations Manager	2 weeks
V	Deputy Department Director	Owner; President	1 week
VI	*Optional Facilitated Issue Resolution		

K. **Kick-off Partnering Workshop:** The initial partnering session where the team develops its partnering charter and officially starts the partnering process.

L. **Multi-Tiered Partnering (Executive - Core Team - Stakeholder)**: Partnering workshops can be divided into multiple sessions, including an executive session, core team session and stakeholder session. For very large projects, a best practice is to use the executive team as a project board of directors who provide vision and steer the project. The core team is the central group of key individuals who are on the project throughout the duration. The stakeholder team is made up of end users, operations and maintenance personnel or third parties who can influence the outcome of the project.

M. **Partnering Level:** The desired level of engagement in the partnering process may vary depending on a contract's size, complexity, location or other risk factor. If a project encounters any of the following risk factors in the Matrix, the City may consider adjusting the partnering process to the appropriate level.

THE CITYWIDE PARTNERING MATRIX

Level	Estimated Construction Amount	Complexity	Political Significance	Relationships	Partnering Process
5	$100 million +	Highly technical and complex design & construction	High visibility/ oversight; significant strategic project	New project relationships; high potential for conflict (strained relationship, previous litigation, or high probability of claims)	Recommended Elements: 12 Sessions/yr. and 12 Surveys/yr. External Facilitator
4	$30 - $100 million	High complexity with schedule constraints, uncommon materials, etc.	Probable stakeholder and community interest or involvement	New contractors or CM, new subs	Recommended Elements: 6 Sessions/yr. and 12 Surveys/yr. External Facilitator
3	$10 - $30 million	Increased complexity	Likely, depending on the location and other project characteristics	Established relationships; new CM, subs, or other key stakeholders	Elements: 4 Sessions/yr. and 4 Surveys/yr. Internal or External Facilitator
2	$2 - $10 million	Standard complexity	Unlikely, unless in a place of importance	Established relationships; new subs, new stakeholders	Elements: Minimum 2 Sessions Internal or External Facilitator
1[1]	$600,000 - $2,000,000	Low level complexity	Unlikely, unless in a place of importance	Established relationships; new subs, new stakeholders	Elements: Create IRL Recommended: Minimum 2 Sessions

N. **Partnering Maintenance Plan:** An element of the partnering charter, the partnering maintenance plan describes the frequency of follow-up partnering sessions (including the close-out/lessons learned session) and the use and frequency of project scorecards.

O. **Partnering Sessions:** Formalized meetings (workshops) focused on developing a collaborative culture among the project team. Teams use these meetings to, among other tasks, set project goals, define project commitments and attend joint training sessions.

P. **Project Scorecards:** An accountability tool that allows project teams to measure how well they are following through on commitments made to one another. Typically, the scorecard is a confidential survey prepared and submitted to the team by the partnering facilitator, if any. The facilitator then compiles the responses into a report which is then sent out to the project team for review.

Q. **Project Stakeholders:** Any person or entity that has a stake in the outcome of a construction project. Examples include the end users, neighbors, vendors, special

[1] Level 1 is not used at SFPUC.

interest groups, those who must maintain the facility, those providing funding, and those who own one or more of the systems.

R. **Project Team:** Key members from the City and Contractor organizations responsible for the management, implementation, and execution of the project, who will participate in the partnering process.

S. **Self-Directed Partnering:** The project team leads itself through all of the collaborative partnering elements.

T. **Stakeholder Team** (in Multi-tiered Partnering): Those individuals who have a stake in the outcome of a construction project.

U. **Subcontractor on-boarding/off-boarding:** At the various stages of construction, key subcontractors (trades) determined by City and Contractor will roll in and roll out as their work begins and is completed.

V. **Third-Party Facilitator Agreement:** An agreement, appended to this specification, to which the external facilitator and the City and the Contractor are parties, and which establishes a budget for fees and expenses of the facilitator, workshop site costs, if any, and the terms of the facilitator's role for the project consistent with the requirements of this specification.

1.04 PURPOSE/GOALS

A. The goals of project partnering are to:

1. Use early and regular communication with involved parties;

2. Establish and maintain a relationship of shared trust, equity and commitment;

3. Identify, quantify, and support attainment of mutual goals;

4. Develop strategies for using risk management concepts and identify potential project efficiencies;

5. Implement timely communication and decision-making;

6. Resolve potential problems at the lowest possible level to avoid negative impacts;

7. Hold periodic partnering sessions and workshops throughout the life of the project to maintain the benefits of a partnered relationship;

8. Establish periodic joint evaluations of the partnering process and attainment of mutual goals.

1.05 COSTS

A. The fees and expenses of the facilitator, project scorecards, partnering training and workshop site costs, if any, shall be paid for by the City as set forth in the Third-Party Facilitator Agreement. (Note: a Sample Scope of Work − Itemized Fee Schedule is available at web link: https://sfpuc.sharefile.com/d-s15c25a5591146368.)

B. Each project will have an allowance to cover the full partnering costs. The allowance will be determined by the City based on the project's partnering level. The Contractor shall pay the invoices of the facilitator and/or workshop site costs after approval by both parties. Upon receipt of satisfactory evidence of payment of facilitator invoices by the Contractor, the City will then reimburse the Contractor for such invoices from a fixed cash allowance included as a bid item in the bid prices. No mark-up, overhead or other fees shall be added to the partnering costs. If the total cost of the partnering differs from the allowance amount, the contract sum shall be adjusted by change order for the difference between the actual cost and the amount included in the bid, as an additional amount due the Contractor or a credit to the City, as appropriate. If the Contractor fails or refuses to pay the facilitator invoices, the City may pay such invoices and deduct the Contractor's portion from any amount that is due or may become due under the contract.

1.06 PARTNERING TRAINING

A. In accordance with the Citywide Partnering program, at least one member of the City staff team and the Contractor shall attend the City Partnering Fundamentals Training and have received a Certificate of Completion from the training session. It is recommended that the key members of the project delivery team, i.e., the Contractor's project executive, project manager and superintendent, the architect and/or engineer, and the City project manager and construction manager, be trained. It is recommended that the prime contractor have at least two members of the team trained so that one is available on the project at all times. Training is free to participants and is offered regularly by the City. Attendance can be coordinated through the Partnering Coordinator and www.sfpartnering.com. Evidence of training, i.e., the Certificate of Completion, must be provided to the City project manager no later than 90 days after Notice of Award.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.01 PARTNERING INITIATION

A. The City Representative, after award of Contract but in no case longer than 30 days following Notice to Proceed (NTP), shall send the Contractor a written

invitation to enter into a partnering relationship. If an external facilitator will be retained, the City and Contractor shall cooperatively and in good faith select the facilitator as specified in Article 3.03 below.

3.02 PARTNERING ELEMENTS

A. The partnering levels are based on the Citywide Partnering Matrix listed in Article 1.03M.

B. The required partnering elements are:

1. **Internal or External Facilitator.** The City and Contractor shall retain either an internal or external facilitator according to the process listed in Article 3.03 below for the partnering sessions or workshops. The facilitator shall be mutually agreed to by the City and Contractor.

2. **Kick-off Partnering Workshop.** The City, Contractor, and facilitator, if any, shall meet to mutually develop a strategy for a successful partnering process and create their initial partnering charter.

3. **Partnering Charter and/or mission statement.** The City and Contractor shall agree to create a partnering charter that includes:

   a. Mutual goals, including core project goals that relate to project schedule, budget, quality, and safety, and possibly project-specific goals and mutually-supported individual goals.

   b. Partnering maintenance and close-out plan, including partnering session attendees and frequency of meetings.

   c. Dispute resolution plan that includes an Issue Resolution Ladder.

   d. Team commitment statement and signatures.

4. **Minimum Two Partnering Workshops or Sessions** (including kick-off workshop). The partnering team may participate in additional workshops or sessions during the life of the project that they mutually agree is necessary and appropriate.

5. **Executive Sponsorship.** Commitment to, and support of, the partnering process from the most senior levels of the City and Contractor organizations.

6. **Issue Resolution Ladder.** The City and Contractor shall mutually develop a project resolution ladder.

3.03 SELECTION OF A PROFESSIONAL NEUTRAL FACILITATOR

A. If an external facilitator will be retained, the City and Contractor shall meet as soon as practicable after award of contract, but in no case later than 30 days after

NTP, to mutually select a facilitator. The City and Contractor shall also schedule the kick-off workshop, determine the workshop site and duration, and agree to other administrative details.

B. The City, Contractor, and selected facilitator shall execute a third-party facilitator agreement within 30 days of NTP.

C. The facilitator shall lead the kick-off partnering workshop and other partnering sessions as necessary or required.

3.04 FACILITATOR QUALIFICATIONS AND REQUIREMENTS; EVALUATIONS

A. The facilitator shall be trained in the recognized principles of partnering.

B. The facilitator shall have the following professional experience and qualifications:

1. At least 3 years' experience in partnering facilitation with a demonstrated track record, including public sector construction for a city or other municipal agency; and,

2. Skill set that may include construction management, negotiations, labor-management mediation, and/or human relations.

C. The facilitator shall be evaluated by the partnering team: (1) at the end of the kick-off partnering workshop; and (2) at the project close-out partnering session.

3.05 *[OPTIONAL PROVISION]* FACILITATED ISSUE RESOLUTION PROCESS

A. In the event that a project team is unable to resolve an issue or a potential claim, the team may call a Facilitated Issue Resolution ("FIR") session.

B. The FIR session will be held as part of the good faith effort to resolve the construction issue.

C. The team shall document its intention to use FIR while developing the Partnering Charter. They will include FIR as the last step of the IRL.

D. Submittal of an issue to the IRL or a FIR session does not toll, reduce, or change the respective rights and duties of the City and Contractor under the contract, or supersede contractual procedures for the resolution of disputes, including the submittal of a timely Notice of Potential Claim and/or a Certified Contract Claim.

END OF SECTION

SECTION 01 31 34

THIRD-PARTY FACILITATOR AGREEMENT

THIS AGREEMENT, dated for convenience as of the_____day of 20____, is between the City and County of San Francisco (the "City"), acting by and through its San Francisco Public Utilities Commission (the "PUC"), _____ , (the "Contractor"), and the following individual:_____(the "Facilitator").

Recitals

A. The City, by and through its San Francisco Public Utilities Commission, has awarded to the Contractor public work Contract No. WW-XYZ (the "Contract") for the construction of a public work known as Sample PUC Contract (the "Project").

B. The Contract includes Section 01 31 33, Partnering Requirements, which specifies Partnering Facilitation procedures for the Project (the "Partnering Specification").

C. The City and Contractor have selected the Facilitator to facilitate partnering on the Project in conformance with the Partnering Specification.

Agreement

NOW THEREFORE, the City, the Contractor, and the Facilitator hereby agree as follows:

1. **Compliance with Specification.** The Facilitator agrees to be bound by the terms of the Partnering Specification and to perform the required duties strictly as set forth in the Partnering Specification. The Partnering Specification is incorporated herein by reference as if fully set forth.

2. **Compensation.** The City and the Contractor agree that the City will compensate the Facilitator for Facilitator's individual services completed satisfactorily in sole judgment of the City at the billing fees set forth in the attached "Scope of Work – Itemized Fee Schedule," which is hereby incorporated into this Agreement, for work authorized by the City's issuance of a written request specifying the work to be completed. The City will pay (through the Contractor) compensation for Facilitator's satisfactorily completed services at the stated billing fees; the stated billing fees include all time needed for travel, reasonable study/consultation, and time spent in Partnering Workshops. The Fee Schedule amounts include Facilitator's overhead costs including, but not limited to, routine office expenses such as secretarial, administrative, report preparation, telephone, computer, and internet connections; Facilitator shall not charge the City or Contractor separately for such overhead costs, which are included in Facilitator's billing fees.

3. **Additional Compensation.** Not included in the billing fees, and considered additional compensation, shall be any of Facilitator's travel expenses, outside reproduction costs, and postage costs. The Facilitator must obtain approval in writing by both the City and the

Contractor prior to incurring any travel costs. The Facilitator may invoice the City (through the Contractor) for the direct cost, with no markup, for outside reproduction and postage expenses.

4. **Invoices.** The Facilitator shall submit to the Contractor invoices for work completed (a) not more frequently than once per month; (b) based on the agreed upon billing fees set forth in the Scope of Work, together with direct, non-salary expenses, including an itemized listing supported by copies of original bills, invoices, and expense accounts; and (c) accompanied by a description of activities performed daily during the invoice period.

5. **Confidentiality.** The Facilitator shall not divulge any information acquired during Partnering activities without obtaining prior written approval from the City and the Contractor.

6. **Recordkeeping.** The Facilitator shall maintain cost records pertaining to this Agreement for inspection by the City or the Contractor for a period of three years following the end or termination of this Agreement.

7. **Assignment.** No party to this Agreement shall assign any duty established under this Agreement or the Partnering Specification.

8. **Termination.** This Agreement may be terminated only by mutual agreement of the City and the Contractor at any time upon not less than 10 days written notice to the Facilitator. If the Facilitator resigns, is unable to serve or is terminated, the City and Contractor must replace the Facilitator within four weeks in the same manner that they originally selected the Facilitator in accordance with the Partnering Specification, and the City and Contractor must replace this Agreement with a new one.

9. **Legal Relations.** The parties to this Agreement expressly acknowledge that the Facilitator, in the performance of duties under this Agreement and the Partnering Specification, is acting in the capacity of an independent agent and not as an employee of the City or the Contractor. The Facilitator shall not participate in any dispute proceedings relating to the Contract or the Project. The City and Contractor release the Facilitator from any and all liability, claims, demands, actions and causes of action arising out of or resulting from partnering for the project. The release set forth above excludes any and all liability, claims, demands, actions and causes of action arising out of or resulting from fraud or willful misconduct by the Facilitator.

10. **Jurisdiction and Venue.** The California Superior Court, County of San Francisco, shall have jurisdiction over disputes among the City, the Contractor, and the Facilitator, which arise out of this Agreement. Venue for litigation amongst the parties shall be in San Francisco, California. The Agreement shall be interpreted in accordance with the laws of the State of California. The Facilitator hereby consents to the personal jurisdiction of the California Superior Court, County of San Francisco.

CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION

BY: _____

Name:
Title:

[CONTRACTOR]

BY: _____

Name:
Title:

[FACILITATOR]

BY: _____

Name:
Title:

Approved as to form:
DAVID CHIU
City Attorney

BY: _____

Name:
Deputy City Attorney

END OF SECTION

SECTION 01 32 16

CONSTRUCTION PROGRESS SCHEDULE

PART 1 – GENERAL

1.01 SUMMARY

A. This Specification Section covers scheduling requirements including the requirement for the Contractor to prepare and submit the following:

1. Initial 60 Day bar chart type Plan of Operation Preliminary Schedule
2. Baseline Critical Path method ("CPM") schedule
3. Summary Schedule
4. Monthly CPM schedule updates and associated reports
5. Weekly four week look-ahead schedule updates and associated reports

B. Related Documents and Sections include the following:

1. Section 00 73 02 – Contract Time and Liquidated Damages
2. Section 01 11 00 – Summary of Work
3. Section 01 29 73 – Schedule of Values
4. Section 01 31 00 – Project Management and Coordination
5. Section 01 31 19 – Project Meetings

C. For those progress schedule related issues which are not specifically addressed herein, the applicable requirements of General Conditions Section 00 72 00 shall be followed.

1.02 REQUIREMENTS

A. At the project Pre-Construction Conference, the Contractor shall submit for the City Representative's review and acceptance a 60 day bar chart type Plan of Operation Preliminary Schedule (an interim bar chart schedule showing all activities during the first two months of the project); this schedule shall serve the project schedule needs until the Contractor has prepared and submitted the Baseline CPM schedule; see below. Sufficient details shall be included for the identification of subdivisions of major components into work subactivities or by

construction discipline (civil, structural, mechanical, electrical, instrumentation and control, and architectural). The City Representative will provide review comments within 14 calendar days after receipt.

B. The Contractor shall use the services of a Scheduler who has verifiable training and credentials in preparing and maintaining a computerized Baseline CPM Construction Schedule using Primavera P6 (P6.2) software as specified herein. The Scheduler must qualify prior to submission of the Baseline CPM progress schedule.

C. Required Experience for the Contractor's Scheduler: Performed CPM scheduling on at least two completed construction projects of at least as large as **Sample PUC Contract** and having at least as many schedule activities as **Sample PUC Contract**. Scheduling of both projects shall have been done using Primavera P6 (P6.2). Within 7 days after the Pre-Construction Conference, the Contractor shall submit the Project Scheduler's resume to the City Representative, including personal references from at least two owner-representatives familiar with the Project Scheduler's work on previous similar type projects. The City reserves the right to reject the proposed scheduler based on the lack of qualifications as defined in this section.

D. Within 14 days after the Notice To Proceed ("NTP"), the Contractor shall furnish a complete Baseline CPM Schedule and Summary Schedule utilizing Primavera P6 (P6.2) showing in detail the proposed sequence of activities.

E. To facilitate the City Representative's understanding of the schedule and subsequent review the Contractor shall present the schedule and resource allocation to the City Representative at a schedule workshop to be held on-site. Depending on the size and complexity of the project this schedule workshop may require up to a full day of participation.

F. The Contractor shall include input from its subcontractors and suppliers in the preparation of the schedule.

G. The schedule shall include proper logic and adequate durations for all activities including mobilization, submittals, procurement/fabrication, installation, system shutdowns, key milestones, testing and start-up, closeout and demobilization.

H. No activity duration shall be in excess of 15 working days or $50,000 in value unless it is approved by the City Representative. Each activity shall be for a definable scope of work. The foregoing includes addressing all Contract specifications milestones and scheduling constraints. Procurement activities and other construction activities may be waived from requirement of the next subparagraph upon approval of the City Representative.

I. The City Representative's review and comment or acceptance will occur within 10 working days after the scheduling workshop. If resubmittal is required, the Contractor shall resubmit within 5 working days. When accepted the schedule

shall become the "Accepted Baseline CPM Schedule" for the project and shall be the basis for monthly updated schedules, for progressing the activities, for updating the schedule of values and for measuring any impacts or delays to the project.

J. The City will not process any Applications for Payment beyond month two of the project until the required CPM schedule is submitted and accepted. Delay in submitting any of the required Schedules will be cause for withholding all progress payments otherwise due under the Contract.

K. The construction schedule package shall consist of a critical path method ("CPM") network, schedule reports, and a written analysis of the Contractor's sequence of work.

L. The initial schedule submittal and any revised schedule submittals shall be accompanied by a basis of schedule narrative describing the logic reasoning of the schedule.

M. The Contractor's schedule shall begin with the date the City issues the NTP and conclude with the date of Final Completion of the Contract. The schedule shall use the full contract time. If the critical path work is shown to be completed before the expiration of the Contract, refer to 1.12 Early Completion Schedule.

N. All costs for the preparation and submittal of the required Schedules as well as updated schedules and requested revisions shall be borne by the Contractor.

1.03 BASELINE CPM SCHEDULE

A. The Baseline CPM Schedule shall utilize the precedence diagramming method ("PDM") of network analysis and show a single critical path. The schedule and network diagram(s) shall show activities for, but not limited to:

1. Submittal and review of alternative construction methods or designs including all supporting data thereto, if applicable

2. Adequate time to receive permits and agency approvals. Each permit and approval shall be identified in the construction schedule.

3. Order, shop drawing review, fabrication, and delivery of materials and equipment

4. Coordination of staging areas, fencing, and traffic concerns

5. Traffic maintenance

6. Detailed construction items

7. Milestones and construction and scheduling constraints specified in Section 00 73 02

8. All submittals required in the contract and their review by the City Representative within the time limits noted in Section 01 33 00. The submittals should allow a minimum of one resubmittal in the activity duration.

9. Delivery of operation and maintenance manuals to the City in accordance with the requirements of Section 01 78 23

10. Adequate time for system shutdowns, acceptance testing, and start-up of major systems and equipment

11. Adequate time for punch list work completion and closeout activities

12. Training of City personnel

13. Cleaning, flushing, and disinfection

B. All schedule activity time durations shall specify what calendar the Contractor is using for each activity. All non-workdays shall be explained for each calendar used and its application of each shall be annotated.

C. The Baseline CPM Schedule shall reflect any limitations on work hours required by the Contract and any permit restrictions and conditions that are required.

D. Each Baseline CPM Schedule activity shall include (in detail) all activities' ID numbers, WBS breakdowns, descriptions, predecessors, successors, start/finish dates, calendars, duration, remaining duration, percent complete, actual dates, resource assignments, constraints, major equipment, materials float, and other grouping codes such as location and responsibility.

E. Each Baseline CPM Schedule activity shall include resource values for: cost, equipment, manpower, manhours by craft, and estimated quantity information.

F. Each item in the Schedule of Bid Prices whether unit price or lump sum shall correspond to an activity in the Baseline CPM Schedule. Each activity may be subdivided into such activities as required for proper planning and monitoring. Activities corresponding to lump sum items shall be subdivided based on their Schedule of Values.

G. Activities by City and other agencies that could impact progress shall be shown. These activities include but are not limited to: approvals, inspections, utility tie-in, City-furnished equipment/material.

H. All activities shall be identified in the Baseline CPM Schedule by the party responsible for performing the work. Responsibility includes but is not limited to

a subcontracting firm, contractor workforce: electrical, mechanical, civil, architectural, landscape, or City performing a given task. Activities shall not belong to more than one responsible party. The responsible party shall be identified by a responsible code.

I. All activities shall be identified in the project schedule by the work area in which the activity occurs. Activities shall not be allowed to cover more than one work area. The work area of each activity shall be identified by the work area code.

J. The schedule should include all key milestones such as installation of an equipment / completion of tasks leading up to shutdowns, etc.

K. Any activity that is added or changed by contract modification or change order or is used to justify claimed time shall be identified by reference to the changed document and change order number.

L. The Baseline CPM Schedule shall represent the Contractor's plan of operation performed within the specified Contract Completion Time and within the Contract Bid Price.

M. A schedule extending beyond the Contract completion time will not be accepted.

N. An activity shall not contain work in more than one payment Item. The payment Item for each appropriate activity shall be identified by a payment Item code. The sum of the monetary values of all the activities in the latest approved baseline schedule shall total the latest approved contract amount. The sum of the monetary values of all activities associated with a payment item shall total the payment item amount.

O. All activities shall be identified in the project schedule according to the category of work which best describes this activity. Category of work refers, but is not limited to, submittals, approvals, procurement, fabrication, delivery installation, shutdown, start-up and testing, and close out. The category of work for each activity shall be identified by a category of work code.

P. Schedules exhibiting front-loaded costs are unacceptable.

Q. The use of float suppression techniques, such as: preferential sequencing (arranging critical path through activities more susceptible to City-caused delay), special lead / lag logic restraints, zero total or free float constraints, extended activity times, or imposing constraint dates or work calendars other than required by Contract, shall be cause for rejection of the Progress Schedule(s). The use of Resource Leveling (or similar software features) used for the purpose of artificially adjusting activity durations to consume float and influence the critical path shall also be cause for rejection.

R. Acceptance of the schedule by the City Representative is of general nature only. The acceptance shall not relieve the Contractor from responsibility to do all work

as specified by the Drawings and Specifications. The Contractor has sole responsibility for means and methods of executing the Work. Items missing from the schedule are assumed to be incidental work and not critical activities. If activities are found to be missing from the schedule after the City Representative's acceptance, the Contractor may submit a revised schedule including these items. A revised schedule is subject to the review and acceptance of the City Representative as described below in paragraph 1.04. No time-extensions will be granted because of errors or omissions on the schedule. It is the Contractor's responsibility to incorporate all necessary activities to cover the entire work scope.

S. Only Contract milestone dates shall have fixed activities with same date as specified in the Contract.

1.04 REVISED SCHEDULE

A. If the Contractor during the course of the construction desires to make any changes in methods of operating or scheduling, or make any changes to the logic or durations of any activities, the Contractor shall notify the City Representative in writing stating the reasons for the change. Any change to the Schedule in logic, order or sequence of work, duration of activities, etc., shall be discussed in the schedule narrative before it is implemented as a Revised Schedule ("Recovery Schedule"). A Revised Schedule will not become effective until accepted by the City Representative.

B. The Contractor shall submit to the City Representative a revised critical path analysis with the Contractor's evaluation of the Contractor's proposed Revised Schedule whenever a Schedule revision is requested or any of the following occur:

1. A change order affects the completion date or the sequence of activities.

2. Progress of any critical activity falls significantly behind schedule (critical path activity is 2 weeks or more late) as determined by the City Representative. Regardless of the reason(s) for falling behind schedule, within 14 days of work falling behind schedule, the Contractor shall submit a proposed Revised Schedule (a.k.a. Recovery Schedule) including narrative demonstrating how the Contract Times will be achieved.

3. Delay on a non-critical activity changes the course of the critical path.

4. The Contractor elects to change any sequence of activities affecting the critical path or the project completion date.

C. All revisions to the schedule shall be submitted in writing to the City Representative for review and acceptance.

D. All completed activities shall be represented with their actual start and finish dates. Activities that are in progress shall be included with their actual start date and the percentage completed.

E. The numbering of the activities shall be the same as in the accepted Baseline CPM Schedule. Numbers of deleted activities shall not be used on the Revised Baseline CPM Schedule and new numbers (not used in the Accepted Baseline Schedule) shall be used for new activities.

F. A revised narrative describing the remaining work as reflected in the revised schedule shall be included.

G. A separate listing of all activities deleted, changed, or added shall accompany the Revised Baseline CPM Schedule.

H. A revised schedule shall be submitted for acceptance as the Revised Baseline CPM Schedule, along with all the items listed above in paragraph 1.03.

1.05 MONTHLY SCHEDULE UPDATE

A. The Baseline CPM Schedule shall be updated monthly by the Contractor and submitted to the City Representative for review. These updates shall be referred to as the "Monthly Schedule Update."

B. Actual start and finish dates and work in progress shall not be automatically updated by default mechanisms that may be included in CPM scheduling software systems. Actual start and finish dates shall be updated manually and shall match daily reports.

C. Computer calculations of the Monthly Schedule Update will be made starting from the current status or data date to the completion of the project. Work completed shall be shown with the actual start and finish dates for each activity. Work in progress shall be shown with the actual start date and the percentage completed for each activity.

D. The CPM network diagram shall at all times represent the actual history of accomplishment of all activities as well as the Contractor's current projected plan for orderly completion of the work. The Contractor shall, at monthly intervals, evaluate work progress with the City Representative by reviewing actual accomplishments since the previous update.

E. The Contractor's monthly evaluation of the critical path analysis shall include all the following:

1. Actual start and completion dates for each activity

2. Critical path

3. Percentage complete for each activity

4. Anticipated completion time of individual activities and for the entire work effort

5. Description of problem area and proposed resolutions

6. Current and anticipated delaying factors and their impact and proposed resolutions

7. Schedule narrative including explanation of corrective action taken or proposed to recover any delays by addressing all activities with negative float.

8. Resources expended for each activity

F. The Monthly Schedule Update, along with the updated Schedule of Values and Summary Schedule, shall be submitted with the request for monthly Application for Payment on the 25th of each month showing all work in progress and completed as of this status date.

1.06 SUMMARY SCHEDULE

A. Contractor shall submit a Summary Schedule with the initial CPM Schedule, all updates and revisions, and Monthly Schedule Updates.

B. The Summary Schedule shall be derived directly from the CPM Schedule, and it is a rollup of the activities grouped by the work area code submitted in the CPM Schedule. All coding structure of the CPM Schedule should directly roll up to the Summary Schedule.

C. The Contractor will coordinate the development of the Summary Schedule with the City Representative in determining the number of summary activities and milestones. The Summary Schedule should contain approximately fifteen to forty summary activities.

D. In addition to the summary rollup activities, the Summary Schedule should contain all system shutdowns; contractual milestones such as substantial and final completion dates; other key milestones as determined by City Representatives including dates City-furnished material and/or equipment is required; and testing and startup summary activities.

E. The Summary Schedule should be cost-loaded, consistent with the detail of the CPM Schedule. The total value must equal the total value of the contract. The cost-loaded value of progress shown in the Summary Schedule shall equal the value of the Schedule of Values that is submitted with the Application for Payment. The % complete and Actual Costs shall also be shown for each activity in the Monthly Update Summary Schedule.

1.07 SUBMITTALS

A. General: Any delay in submitting any of the required Construction Progress Schedules will be considered cause for withholding any progress payments otherwise due under the contract and will trigger liquidated damages as described in paragraph 1.09 of this Section.

B. Progress Schedules: Unless directed otherwise by the City Representative, the following shall be included in the required submittals of the accepted Baseline Schedule and each Monthly Schedule Update:

1. A graphic network diagram with legible letters in a size not to exceed 36"x60". Each activity shall include the number, description and its duration in working days. This diagram shall be plotted using early dates and include early start and early finish dates and total float.

2. The computerized schedule reporting information shall include the following:

   a. Listing of all activities sorted by total float including early start (“ES”), late start (“LS”), early finish (“EF”), late finish (“LF”) and Total Float duration for each activity. Each activity or work item will not take more than two lines.

   b. List of all activities sorted numerically including ES, LS, EF, LF, Total Float, and Predecessor/Successor information of precedence network.

   c. List of all activities sorted numerically including resource requirements for each activity as defined in Section 1.03 above.

   d. Histogram and 'S' curve graphs showing projected early, late and actual earnings, as-bid vs. actual cash flow, percent complete, total manpower, manpower by craft, total manhours, and manhours by craft. These graphs shall cover the entire Contract Time on the horizontal scale.

   e. An executive summary schedule showing progress for the major disciplines of work and all contract completion milestones.

3. A detailed narrative describing the basis of the schedule and the Contractor's sequence of work.

4. A response to all comments from the most previous schedule review, including an itemized response to any itemized comments made.

C. Revised Schedule: The submittal(s) of a Revised Schedule shall include all the items listed above for the Construction Progress Schedule.

D. Monthly Schedule Updates: The Monthly Schedule Update shall consist of subparagraph 1.07B requirements listed above for the Construction Progress Schedule and shall include the following:

1. Calculations of the schedule starting from the date specified below and ending at project completion. Completed activities shall be listed with their actual start and finish dates.

2. The updated schedule shall be submitted along with the Application for Payment. The data date of schedule update will be used the 25th day of the month.

3. Schedule narrative describing conformance or nonconformance to the schedule, reasons for schedule slippage, and proposed corrective actions.

4. Time impact analyses and "fragnets" analyzing change order time impacts which might be used to support Contract time extension requests.

5. Approved Contract time extensions properly incorporated into schedule updates.

E. An electronic copy containing all data comprising the schedule shall be submitted with every submittal of the progress schedule in CD format.

F. All Schedules submitted for review shall also include the native electronic soft copy file, i.e., "XER" format for P6.

1.08 PROGRESS MEETINGS AND FOUR WEEK SCHEDULES

A. For weekly progress meetings, the Contractor shall submit a Look-Ahead Schedule. This schedule will cover 4 weeks: the immediate past week, the current week, and the forthcoming 2 weeks. This schedule will include all activities which are complete, started, are incomplete or underway, or scheduled to be worked during this 3-week time frame. The schedule shall list all activities from the accepted Baseline CPM Construction Schedule which are complete, are scheduled for work during this period, are currently planned to be worked, even if out of sequence, and Work which is unfinished but scheduled to be finished. Actual start and completion dates shall be provided for the Work that has been completed the prior week; forecast early start and early finish dates shall be provided for the Work that is in-process or upcoming.

B. Each activity noted above shall be identified by activity number corresponding to the accepted CPM Construction Schedule and detailed description of the activity.

C. The Look-Ahead Schedule shall be delivered to the City Representative 24 hours prior to the weekly progress meeting.

D. The Look-Ahead Schedule shall be in a bar-chart format and extracted from the monthly schedule update submittal to ensure uniformity with the monthly updated schedules.

E. Tabular reports for manpower and equipment resources shall be provided for and with each Look-Ahead Schedule.

1.09 LIQUIDATED DAMAGES

A. Liquidated damages will be assessed at any time that the required Schedules or updates are not submitted on time as following:

1. For each calendar day of delay the amount of $500.00 (Five Hundred Dollars) per schedule will be deducted from the Contract amount.

1.10 ADJUSTMENT OF THE CONTRACT TIME AND CHANGE ORDERS

A. Adjustments of the Contract Time due to weather delays, extra work, or any other cause will only be issued through a Contract Change Order and only for causes specified in the Contract Documents. Negative float will not be a basis for requesting time extensions.

B. In the event the Contractor submits a claim for an adjustment of the Contract Time, the Contractor shall furnish such schedule justification (fragnet analysis), as the City Representative may deem necessary for a determination as to whether or not the Contractor is entitled to an adjustment of time under the provisions of the Contract.

C. The progress schedule shall clearly indicate that the Contractor has used, in full, all the float time available for the work involved in the request.

D. The Contractor shall not be entitled to additional compensation due to schedule impacts for change order work that extends the Contract beyond the scheduled completion date, but not beyond the Contract Completion Date as specified in the Contract Documents.

E. The City Representative's determination as to the adjustment of the Contract Time will take into account the latest version of the progress schedule accepted at the time of the alleged delay, the Contractor’s written time impact and associated fragnet analyses, and all other relevant information.

F. Actual delays in activities, which according to the progress schedule, do not affect the critical path work, shall not be the basis for an adjustment to the Contract Time.

G. The Contractor shall submit, as part of each Change Order Request or Proposed quotation for a Change Order for which the Contractor is requesting an adjustment in the Contract time, a written time impact analysis and a subnetwork

("fragnet") showing activity logic revisions and duration changes for the work in question and its relationship to other activities on the construction schedule.

H. The new progress schedule, if accepted by the City Representative, shall be in compliance with the requirements of paragraph 1.04 of this Section.

I. Where the City Representative has not yet made a final determination as to the adjustment of the Contract Time, and the parties are unable to agree as to the amount of the adjustment to be reflected in the Progress Schedule, the current schedule will be in effect and be updated regularly every month until a Revised Schedule is agreed upon and accepted by the City Representative.

1.11 DEFINITION – TOTAL FLOAT

A. Total Float: Total float or slack is defined as the minimum amount of time between the early start date and the late start date, or the early finish date and the late finish date, for any activity in the Schedule. Float or slack is not time for the exclusive use of or benefit of either the City or the Contractor, but is a resource available to both parties on a first needed basis. Efficiencies gained as a result of favorable weather within a calendar month, where the number of days of normally anticipated inclement weather is less than expected, will also contribute to the reserve of float. Extensions of time will not be granted unless the excusable delays affect the critical path in the Schedule and after all available float or slack has been used.

1.12 EARLY COMPLETION SCHEDULE

A. The Contractor may provide a Progress Schedule, which includes a scheduled completion date earlier than the Contract Time allowed for substantial completion. The proposed early completion schedule shall conform to the requirements of this Section and shall properly include all special project constraints, and site access and City coordination requirements of the Contract Documents.

B. If the Contractor submits an early completion schedule, it shall agree to and certify to the following:

1. The time difference between the proposed early completion date and the date corresponding to the Contract Time for substantial completion is defined as total float.

2. The total float is not for the exclusive use or benefit of either the City or the Contractor, but is a resource available to both parties on a first needed basis.

3. The Contractor's original Bid shall include all costs for the full duration of the Contract from the date of the Notice to Proceed through the date of final completion corresponding to the Contract Time. Specifically, the

Contractor has provided in its Bid the overhead, construction equipment, and facilities costs including field overhead, home office, other off-site yard, and extended overhead costs, for the duration of the Project Time.

4. If the City requires additional work through a Proposed Change Order, which shall be done after the proposed early completion date, but prior to the Contract Time completion date, then no additional money will be paid to the Contractor for extended overhead.

1.13 PROJECT-SPECIFIC REQUIREMENTS

A. ***Not Used***.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 32 41

SURVEYING

PART 1 – GENERAL

1.01 SUMMARY

A. This Specification Section establishes general survey requirements for the project.

1.02 SURVEY REQUIREMENTS

A. The Contractor shall retain an experienced surveyor to perform preconstruction survey, survey during construction, and post construction survey.

B. Surveying work may be performed by licensed or unlicensed surveyors. However, all surveys to establish benchmarks, control points, building grid lines, property or right-of-way lines, and all surveys to be submitted to the City Representative must be performed by a licensed surveyor in the State of California.

C. Provide field engineering services using recognized engineering survey practices.

D. Verify locations of control points prior to starting work.

E. Promptly notify the City Representative of all discrepancies discovered in Contract Documents.

F. Establish a minimum of one permanent benchmark on site, referenced to established control points. Record location of benchmark(s) with horizontal and vertical data on Project Record Documents.

G. Establish elevations, lines and levels. Locate and lay out by instrumentation and similar appropriate means:

1. Site improvements including stakes for grading, fill and topsoil placement; utility locations, slopes, and invert elevations.

2. Grid or axis for structures.

3. Building foundation, column locations, and ground floor elevations.

4. All other site setting out.

H. Periodically verify layouts by same means.

I. The Contractor shall be responsible for providing primary control from existing offsite monument markers and lines with control line and grade. The Contractor shall maintain and preserve all line, grades and benchmarks and provide for all other survey control work. The Contractor shall establish construction control line with hubs every 100 feet prior to construction work. The Contractor shall replace or re-establish hubs missing or displaced during construction at no cost to the City.

J. The Surveyor shall establish all horizontal and vertical controls for roadways, structures, and utilities.

K. All survey work including protection, relocation and/or re-establishment of survey points shall be considered as incidental work and no separate payment will be made therefore.

1.03 SURVEY CONTROL POINTS

A. Control datum for survey is established by the City. City may provide control points or monuments as referenced in the Contract Documents.

B. All other additional benchmarks, control points, and lines and grades required for the completion of the work shall be Contractor's responsibility.

C. Contractor to locate and protect survey control points prior to starting site work. Preserve permanent survey points during construction.

D. Promptly report to the City Representative the loss or destruction of any survey points or relocation required because of changes in grades or other reasons. Replace dislocated or damaged City provided control points and monuments based on original survey control. Make no changes without prior written notice to City Representative.

E. Maintain a complete and accurate log of control and survey work as it progresses.

1.04 SURVEYOR SUBMITTALS

A. The Contractor shall submit the following to the City Representative 15 working days, before starting survey work:

1. The name, address and telephone number and state license number of the surveyor.

2. Evidence of the surveyor's errors and omissions insurance coverage in the form of an insurance certificate.

B. The Contractor's submittal of the Surveyor's deliverables to the City Representative shall include the following for each stage of survey completion

(such as for example, preconstruction survey, survey during construction, and post construction survey):

1. Copy of site drawing, prepared, stamped and signed by the Surveyor

2. Certificate prepared, stamped and signed by the Surveyor, which clearly states that the elevations and locations as defined on the site drawing are in conformance with applicable Contract Documents.

1.05 PROJECT-SPECIFIC REQUIREMENTS

A. ***Not Used***.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 33 00

SUBMITTAL PROCEDURES

PART 1 – GENERAL

1.01 SUMMARY

A. This Specification Section covers the requirements for the processing and review of submittals including submittals schedule and log, presubmittal meetings, shop drawings, product data and samples, and use of submittals.

B. Related Documents and Sections include the following:

1. Section 00 72 00 – General Conditions
2. Section 01 29 73 – Schedule of Values
3. Section 01 31 00 – Project Management and Coordination
4. Section 01 41 00 – Regulatory Requirements
5. Section 01 32 16 – Construction Progress Schedule
6. Section 01 60 00 – Product Requirements
7. Section 01 25 13 – Product Substitution Procedures
8. Section 01 77 00 – Closeout Procedures
9. Section 01 78 39 – Project Record Documents
10. Section 01 78 23 – Operations and Maintenance Data
11. Section 01 78 36 – Warranties

C. For those submittal procedures related issues which are not specifically addressed herein, the applicable requirements of General Conditions Section 00 72 00 shall be followed.

1.02 GENERAL

A. Whenever called for in the Contract Documents or where required by the City Representative, the Contractor's submittals shall include but not be limited to schedules, shop drawings, fabrication, layout, installation and erection drawings, catalog cuts, samples, design calculations, vendor operation and maintenance

manuals, equipment installation certification forms, data sheets, warranties and similar items. The costs for preparation and submittal of all of the foregoing shall be included in the Contractor's bid.

1. Submittals, except samples and oversize drawings, shall be transmitted electronically. The City shall provide Contractor access to the City's Construction Management Information System ("CMIS') for transmitting all submittals.

2. Submittals are to be in PDF format using latest version of Adobe Acrobat. Obtain procedure for submittal of electronic submittals from City Representative.

3. Resolution shall be such that the finest detail must be legible at full scale on a monitor without zooming in, i.e., 1 inch width on 11x17 inch sheet is 1 inch on the monitor.

B. All Contractor Submittals of professional engineering plans, shop drawings of Contractor-designed components, calculations, and documents prepared by the Contractor or the Contractor's sub-contractor and submitted to the City Representative under the terms of this Contract shall be stamped and signed with the date of signing clearly indicated by a Professional Engineer currently licensed in California. This includes, but is not limited to, Contractor-designed piping appurtenances, micropiles, drilled piers, foundations, and retaining walls in addition to Contractor-designed temporary engineered shoring and scaffolding. With the exception of "interim documents" as described in Section 6735 of the California Business and Professions Code, all submittals of all revisions of Submittals for construction shall include the signatures and seals of those California licensed engineers designated by the Contractor as representing each branch of engineering applicable to the component designed. The Contractor's submittal of interim documents shall include the name and license number of each California licensed engineer employed or subcontracted by the Contractor and that engineer so designated and identified by Contractor as exercising responsible charge during the performance of all engineering services related to the preparation of such Submittals. The required signatures, dates of signing, and seals of such licensed engineers shall be affixed to all Submittals submitted for construction, including the final as-built drawings produced by the Contractor. In addition, the Contractor shall include the required Professional Engineer seal, signature and date of signing on each page of the Contractor's design documents with multiple sheets or pages. The Contractor's Submittals without the required inclusion of clearly legible signatures and California Professional Engineer seals and dates of signing may result in the City's withholding all or a portion of any applicable Progress Payment. As-built drawings and shop drawings for Contractor-designed components submitted without the required inclusion of clearly legible signatures and California Professional Engineer seals and dates of signing may result in the City's withholding of the retention release.

C. A single City-provided standard submittal transmittal form shall be used for each technical specification section or item or class of materials or equipment for which a submittal is required. A single submittal covering multiple sections or items will not be acceptable.

D. The Transmittal Form shall index the components of the submittal and the submittal shall be tabbed to match the components. The index shall prominently indicate the electronic file name and instructions on accessing the file. Submittal components shall be related to specification paragraph and subparagraph, drawing number, and detail number, as applicable. Unless indicated otherwise, terminology and equipment names and numbers used in submittals shall match those used in the Contract Documents.

E. Every page in the submittal, including title pages, tables of contents, appendices and attachments, shall be sequentially numbered at the center of the page footer. Each submittal shall be assigned a unique number comprised of sequential numbers, i.e., 1 through x, shall be sequentially numbered. Resubmittals shall receive the same number as the original, but with a lettered suffix, i.e., “Rev. 1” for the initial submittal, “Rev. 2” for the first resubmittal, “Rev. 3” for the second resubmittal and so on. Every page shall bear the submittal number, revision number, and date at the right side of the page footer. The minimum and maximum size sheet of hard copy submittals shall be 8.5 inches by 11 inches and 24 inches by 36 inches, respectively.

F. Submittals of product data from a manufacturer shall be clearly marked to identify the proposed model and all pertinent data including materials of construction, capacities, dimensions, clearances, diagrams, controls, connections, appurtenances, anchorage and supports.

G. Submittals that are combined, incomplete, or disorganized submittals or otherwise unsuitable for review by the City Representative, not listed in the Contractor's Submittal Log, or are from sources other than the Contractor will be marked as "REJECTED" and will be returned to the Contractor without review.

1.03 DEFINITIONS

A. "Shop drawings" are drawings, diagrams, schedules, and other data specially prepared for the work by the Contractor or a subcontractor, sub–subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the work.

B. "Product data" are illustrations, specifications, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate materials or equipment for some portion of the work.

C. "Samples" are physical examples which illustrate materials, equipment or workmanship and establish standards by which the work will be judged.

D. Shop drawings, product data, samples, and similar submittals are not Contract Documents. Their submittal provides details of materials and equipment necessary to conform to the requirements of the Contract Documents.

E. Shop drawings shall establish the actual detail of manufactured or fabricated items, indicate proper relation to adjoining work, and amplify design details of mechanical and electrical equipment in proper relations to physical spaces in the structure.

F. The term "manufactured" applies to standard units usually mass–produced. The term "fabricated" means items specifically assembled or made out of selected materials to meet individual design requirements.

G. "Manufacturer's instructions" shall mean the manufacturer's written instructions on the use or application of the product under conditions similar to those at the job site.

H. "Work description" is a detailed description of the means, methods, tools, equipment, materials, sequence, and any other pertinent information about performance of work.

I. "Subcontractor qualifications" is a detailed statement of the sub–contracting entity or personnel scheduled to perform work including general description of qualifications, representative list of applicable projects, number of years experience, and references complete with contact persons and their telephone numbers. Refer to General Conditions Section 00 72 00 for requirements regarding submittal of subcontractor qualifications.

J. "Field sample" is a sample made available at the Contract site to demonstrate the final technique, finish, and construction quality by which the work will be judged.

1.04 REQUIREMENTS

A. The Contractor shall submit a Submittal Log to the City Representative as specified in Article 1.05, herein.

B. The Contractor shall make submittals other than schedules far enough in advance of scheduled installation dates to allow time for review and possible revision. The log shall allow the City Representative 21 calendar days for each submittal review, or revision review.

1. To ensure a compliant and complete submittal package, the Contractor shall review and coordinate each submittal with other submittals, the Baseline CPM schedule, testing, procurement, fabrication, delivery and similar sequential activities. All submittals shall be included as activities in the Contractor’s Baseline CPM schedule and Submittal Log.

2. The Contractor shall be responsible for changes made necessary by the Contractor's failure to coordinate submittals in a complete and timely manner.

C. Only Submittals made by the Contractor will be reviewed.

D. The Contractor shall make submittals in groups containing all associated items as complete packages of information for review. The City Representative will reject partial submittals.

1. The Contractor shall provide coherent and organized submittal packages in a three-ring binder with table of contents and tab sheet for each system. Tab sheet shall include a list of material and equipment furnished and shall provide ample space for the City's review stamp and comments.

2. The City Representative reserves the right to withhold action on submittals requiring coordination with other submittals until related submittals are furnished.

E. All submittals shall be reviewed, stamped, and approved by the Contractor prior to forwarding them for City Representative's review.

1. By approving, stamping and submitting shop drawings, product data, and samples, the Contractor represents that it has determined and verified dimensions, materials, field measurements, and related field construction criteria, and that it has checked and coordinated the information contained within such submittals with the requirements of the work and of the Contract Documents.

2. When professional certification of performance criteria of materials, systems or equipment is submitted, submittal shall be stamped and signed by the responsible design professional with California license number and date of signing, representing that the City could rely upon the accuracy and completeness of such calculations and certifications.

3. The stamped and signed pages shall be scanned and included in the submittal, and the Contractor shall retain the original stamped and signed documents and be prepared to furnish them at the request of the City Representative.

F. No portion of the work requiring submission of a shop drawing, product data, work description, subcontractor qualification or sample shall commence until the submittal has been reviewed and accepted by the City Representative. All such portions of the work shall be executed in accordance with accepted submittals.

G. No change shall be made by the Contractor in any submittal after it has been accepted by the City Representative. If such a change should be necessitated by changed conditions or a Contract Change Order after a submittal has been

accepted by the City Representative, the original submittal shall be void and the Contractor shall submit a new submittal which will provide for the conditions of the change.

H. If the submittal shows any variation from the Contract requirements because of standard shop practice or other reasons, the Contractor shall make specific mention of each variation in its submittal.

I. The City Representative will review the Contractor's submittals only for general conformance with the design concept of the Project and general compliance with the requirements of the Contract Documents. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents.

J. The City Representative's review of Contractor's submittals shall not relieve the Contractor of the obligations to comply with the requirements of the Contract Documents. The City Representative's review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences or procedures. The City Representative's acceptance of a specific item shall not indicate acceptance of an assembly of which the item is a component.

K. If the Contractor makes a submittal which is not required to be submitted, the City Representative will not review such submittal. The Contractor shall execute the work in accordance with the Contract Documents.

L. The Contractor shall submit a minimum of 8 copies of each submittal for the City Representative's review. A total of 3 copies will be returned to the Contractor for its use and for the use of its subcontractors, suppliers, and vendors. If the Contractor requires additional copies it shall reproduce them at its own cost.

1.05 SUBMITTAL SCHEDULE AND SUBMITTAL LOG

A. The Contractor shall prepare a Submittal Log in a format acceptable to the City Representative, integrating it with or as a by–product of the Contractor's Baseline CPM Schedule, and shall submit it to the City Representative simultaneously with the Baseline CPM Schedule, whichever is earlier. The Submittal Log shall list each submittal required by the Contract, the specification section number and the planned submittal date.

B. The Contractor shall include all submittals in the Baseline CPM Schedule.

C. In preparing the Submittal Log, the Contractor shall first determine from the Baseline CPM Construction Schedule the date the particular item related to a particular system is needed for the work. The Contractor shall schedule the submittal to provide sufficient time to process the submittal and one re-submittal, as well as procurement, fabrication, factory testing, shipment, and similar items.

1. The Contractor shall anticipate and allow 21 calendar days for the City Representative's review of the submittal and anticipate that an incomplete, inadequate, or incorrect submittal will require resubmission.

2. If more than one resubmittal is required, the costs of reviewing the extra resubmittals will be deducted from progress payments due to the Contractor. Such costs shall include the City's costs and the City's consultant fees.

D. The Contractor shall submit the Submittal Log, with current status information, monthly with the Baseline CPM Schedule update and at any time the Baseline CPM Schedule is revised. Contractor shall provide two copies of the Submittal Log.

E. The Contractor shall be solely responsible for scheduling of submittals. No extension of Contract time will be granted for untimely submittals or required re-submittals.

F. Delays in the work caused by the need for re-submittal or by submission of incorrect or insufficient data will not constitute reason for an extension of Contract time or cost.

G. For weekly progress meetings, the Contractor shall submit a stand-alone, Look-Ahead Submittal Schedule. This submittal schedule will cover four weeks: the immediate past week, the current week, and the forthcoming two weeks. The Look-Ahead Submittal Schedule shall be delivered to the City Representative 24 hours prior to the weekly progress meeting.

1.06 PRE-SUBMITTAL MEETINGS

A. For complex and/or long lead time mechanical and electrical equipment the Contractor shall plan for and schedule pre-submittal meetings with the City Representative. The purpose of the meetings is to review the contractual requirements and to respond to questions prior to making the submittal so that the initial submittal has a greater likelihood of being approved without need for resubmittal.

B. The meetings shall be attended by the City Representative, Contractor, pertinent subcontractors and the vendor/supplier/manufacturer. In the case of vendors/suppliers/manufacturers who are located remotely from the job site, these parties may participate in the meeting by conference call.

C. Minutes of Meeting documenting resolution of issues and action items shall be included with the submittal.

1.07 PROCEDURES

A. With the exception of samples and oversized documents such as drawings, all submittal packages shall be delivered via the CMIS using the Transmittal Form in the CMIS. Six copies of each sample or oversized document shall be submitted on the same day the transmittal is sent via the CMIS, along with a hardcopy of the transmittal form from the CMIS.

1. The Contractor shall coordinate with the City Representative regarding media, file format, operating system and other issues prior to the first transmittal of electronic submittals.

2. All electronic submittals will be in the most current version of Adobe Acrobat (PDF), using bookmarks in addition to a table of contents and hyperlinks to referenced documents. Acrobat files shall be saved with such security measures as to protect them against modification without tracking, but to allow comment. Alternative electronic formats (e.g., JPEG, Microsoft Word, or Excel) may be used only with the City Representative's approval of a written request. The City Representative may request a submittal to be made in the original application (e.g., calculations in Microsoft Excel) or in hardcopy in addition to Adobe Acrobat to facilitate review and approval. The Acrobat file shall take precedence over the formats and its submission date shall be recorded as the date of the submission of the submittal.

3. In the event that the submittal's electronic file is corrupt or is inaccessible for any other reason, the submittal shall be considered delayed by the Contractor. All elements of the submittal, enumerated below, shall be capable of being downloaded and printed in the format described in the applicable paragraph.

4. External electronic documents such as drawings and calculations shall be listed in the attachments field of the Transmittal Form and shall be attached.

5. E-mail: Submittals shall not be transmitted via e-mail.

6. Any document bearing an embossed stamp, original signature, or other marking determined to be of legal status shall be scanned showing the marking for inclusion in the electronic submittal. The Contractor shall retain the original and provide it at the request of the City Representative.

B. Identification: Identify submittals with the following information (material submittals will be physically marked with indelible ink):

1. Project name and location

2. Submittal Number.

3. Product identification or shop drawing title, number, revision, and date as applicable. Where product data contain more than one product, model, selection, etc., clearly mark and identify the information intended to be reviewed by City Representative.

4. Contractor's stamp, signed or initialed, certifying that review, verification of products required, field dimensions, adjacent construction work, and coordination of information are in accordance with the requirements of the work and Contract Documents. Indicate any items that do not conform to the Contract requirements.

5. Where multiple Specification sections govern any portion of the work or where multiple trades are involved in any portion of the work (e.g., steel, mechanical and electrical items embedded in concrete), indicate all pertinent Specification sections in its submittal identification.

6. Reference to [Contract] Drawing or Specification section as applicable.

7. Revise any resubmittals as required and identify all changes made since previous submittal.

8. No submittal will be processed unless all requested information is completed.

C. Packaging of Non-Electronic Submittals:

1. Submittals shall be wrapped or packaged to prevent damage during delivery.

2. Reproducible drawings shall be rolled and not folded.

1.08 SHOP DRAWINGS

A. Each shop drawing submitted shall be sized for printing as follows:

1. Maximum sheet size: 34” x 22” (D size) with a 1” border and a 2” binding edge to the left of the border on the short side of the sheet.

2. Minimum sheet size: 8-1/2” x 11” with ¼” border on three sides and ½” binding edge on the long side.

B. The City Representative will scan and return the appropriately stamped drawings to the Contractor after review and approval.

C. If the shop drawings are not accepted, the marked-up copy will be scanned and returned to the Contractor with the City Representative’s review comments included on the Transmittal Form or attached as a separate electronic document.

D. The Contractor shall clearly identify and provide explanation of changes made by Contractor on the resubmitted shop drawings.

1.09 PRODUCT DATA

A. In order to submit product data electronically, the Contractor shall use Adobe Acrobat to create or edit an electronic file for submittal. Adobe Acrobat markup tools may be used to identify pertinent information by highlighting the information or marking out inapplicable information.

B. Product data and manufacturer's standard drawings submitted for review shall show only the pertinent information.

1. Identify the pertinent information by circling it with black ink pen or by crossing out the inapplicable information with black ink pen.

2. Any submittal which contains information not clearly identified for review will be rejected and returned to Contractor for resubmission.

C. The Contractor shall submit instrument data sheet to be used for programming, testing and calibration.

1.10 SAMPLES

A. Submit three samples unless otherwise specified; after review, one sample will be returned to Contractor.

B. Furnish samples in the following sizes, unless otherwise specified:

1. Flat or Sheet Products: Minimum 6 inches square, maximum 12 inches square.

2. Linear Products: Minimum 6 inches long, maximum 12 inches long.

3. Bulk Products: Minimum 1 pint, maximum 1 gallon for liquids; minimum 1 pound, maximum 3 pounds or minimum 1 cubic foot, maximum 1 cubic yard, as applicable for solids.

C. Submit samples to illustrate functional and aesthetic characteristics of the product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.

D. Submit samples of finishes in custom colors selected, textures, and patterns for the City Representative's selection.

E. Include identification on each sample, with full Contract information.

1.11 MANUFACTURER'S INSTRUCTIONS

A. When required by the Specifications or by the City Representative during submittal reviews, the Contractor shall submit in scanned electronic format as specified the manufacturer's printed instructions for delivery, storage, assembly, installation, start-up adjusting, field testing and finishing.

B. The Contractor shall identify conflicts between manufacturer's instructions and Contract Documents.

C. The Contractor shall maintain copies of manufacturer's installation instructions and recommendations in Contractor's field office for review, regardless of whether such submittals are requested.

1.12 MANUFACTURER'S CERTIFICATES

A. The Contractor shall submit Manufacturer's Certificates (also known as Equipment Installation Certification Forms) in the scanned electronic format specified in this specification.

B. The City Representative will retain certificates; no approval reply is intended.

C. The certificate shall state that:

1. The equipment or system has been:
   a. installed in accordance with the manufacturer's recommendations,
   b. inspected by a manufacturer's authorized representative, and
   c. serviced with the proper initial lubricants.
2. Applicable safety equipment has been properly installed.
3. The equipment has been properly anchored and proper electrical and mechanical connections have been made.
4. The equipment is ready for startup.
5. Proper adjustments have been made and that the equipment or system is ready for plant startup and operation.
6. The form shall be signed by the Contractor and the duly authorized equipment vendor or representative.

D. Manufacturer's certificates may be submitted electronically as scanned Adobe Acrobat documents.

1.13 ACTION AND DISTRIBUTION

A. After review of the submittal, the City Representative will return the submittals indicated as "NO ACTION TAKEN," "NO EXCEPTIONS TAKEN," "MAKE CORRECTIONS NOTED," "REJECTED," or "REVISE AND RESUBMIT."

1. When "NO ACTION TAKEN" or "NO EXCEPTIONS TAKEN" is indicated, the Contractor is advised that fabrication, manufacturer, or construction may proceed, providing it complies with the Contract Documents.

2. When "MAKE CORRECTIONS NOTED" is indicated, the Contractor is advised that fabrication, manufacture, or construction may proceed, providing it complies with the City's notations and the Contract Documents.

3. When "REJECTED" or "REVISE AND RESUBMIT," is indicated no work shall be fabricated, manufactured, or constructed until the submittal is acceptable. The Contractor shall make a new submission in accordance with the specified procedures.

B. The Contractor shall make additional copies of the accepted submittals and shall within 3 calendar days from date of receipt distribute one copy to its subcontractors, vendors, or manufacturers as applicable. Copies shall be made from the accepted copy bearing the City Representative's stamp of acceptance.

1.14 USE OF SUBMITTALS

A. Work shall be fabricated, constructed, and furnished in accordance with the acceptable submittals. One copy of such acceptable submittals shall be kept at the job site.

B. The Contractor shall not use submittals or submittal materials in the work.

1.15 PROJECT-SPECIFIC REQUIREMENTS

A. ***Not Used***.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 35 43

ENVIRONMENTAL PROCEDURES

Project Engineer: Please contact Environmental Construction Compliance manager Kimberly Stern for assistance in completing this specification.

PART 1 – GENERAL

1.01 SCOPE OF WORK

A. All materials, installation, and construction shall be in compliance with Paragraph 3.20 of the General Conditions (Section 00 72 00).

B. Contractor shall be responsible for all costs necessary to prevent its operations from violating any federal, state, or local governmental regulations and the requirements of the Contract Documents.

C. Contractor shall review and become familiar with project's Mitigation Monitoring and Reporting Plan ("MMRP") prepared by the City. This document is available in Appendix ***[Manual insert field] Project Engineer to identify what Appendix the actual MMRP is in***. Comply with mitigation measures in the MMRP that apply to the Contractor. Contractor shall also review and become familiar with the ***[Manual insert field] Project Engineer to identify Project's name and applicable CEQA document (e.g., FEIR, Mitigated Negative Declaration, Negative Declaration, CatEx) and where they can be found (e.g., web site or City Representative to provide hard copy or CD or DVD).***

D. Contractor shall review and comply with the conditions per the resource agency permits acquired by the City as listed in Section 00 73 00/APA. Permits are included in ***[Manual insert field] Project Engineer to identify what Appendix the actual permits are in.***

1. Contractor shall keep a copy of each resource agency permit in its jobsite field office, and shall ensure that it and its subcontractors' superintendents and foreperson are thoroughly familiar and compliant with the requirements.

1.02 RELATED DOCUMENTS AND SECTIONS

Project Engineer to add/delete Sections and Documents to the listing below as applicable.

A. Section 00 72 00 – General Conditions

B. Section 00 73 00/APA – Appendix A: Permits and Agreements to be Obtained by the City

C. Section 00 73 00/APB – Appendix B: Permits and Agreements to be Obtained by the Contractor

D. Section 00 73 25 – Archaeological Conditions

E. Section 00 73 19 – Health and Safety Requirements

F. Section 01 56 55 – Temporary Noise and Vibration Controls

G. Section 01 41 00 – Regulatory Requirements

H. Section 01 35 43.19 – Contaminated Soils in Excavation

I. Section 01 33 00 – Submittal Procedures

J. Section 01 50 00 – Temporary Facilities and Controls

K. Section 01 71 33 – Protection of Adjacent Construction

L. Section 01 57 23 – Stormwater Pollution Prevention, Erosion / Sediment Control

M. Section 01 55 26 – Traffic Control

N. Section 01 24 13 – Value Engineering

O. Section 31 23 19 – Dewatering

P. Section 31 20 00 – Earth Moving

Q. Section 31 71 16 – Blasting

R. Section 31 31 19 – Revegetation

S. Section 32 84 00 – Planting Irrigation

T. Section 32 90 00 – Planting

U. Section 03 60 ***XX*** – ***Pre-Excavation*** Grouting

Project Engineer shall add to, or delete from the above listing as needed to finalize it for his or her specific Contract.

1.03 REFERENCES

A. ***Project Engineer to list appropriate CEQA document title and date of document (e.g., EIR, Mitigated Negative Declaration, Negative Declaration, CatEx)***

B. ***Project Engineer to list MMRP and where it can be found.***

C. ***Project Engineer to list any related City plans (e.g., Conceptual Restoration and Revegetation Plan)***

D. ***Project Engineer to list Biological Opinion***

E. ***Project Engineer to list environmental permits obtained by City in Section 00 73 00/APA – Appendix A: Permits and Agreements to be Obtained by the City***

F. ***Project Engineer to list Historical Resources Protection Plan, if applicable to project***

1.04 DEFINITIONS AND ABBREVIATIONS

Project Engineer shall add to, or delete from the following listing as needed to finalize it for his or her specific Contract.

A. Bay Area Air Quality Management District ("BAAQMD")

B. Best Management Practices ("BMP")

C. California Code of Regulations ("CCR")

D. California Department of Fish and Game ("CDFG")

E. California Department of Toxic Substances Control ("DTSC")

F. California Environmental Quality Act ("CEQA")

G. California State Water Resources Control Board ("SWRCB")

H. Construction Limit: Area to which Contractor shall confine work activities.

Project Engineer to define work limits and ensure that the name given to the work boundaries is the same as that stated on the drawings and throughout this Section (e.g., work limits, work boundary, etc.). Also see 'Contractor's Use of Site' Article 1.08 of 'Summary of Work' Section 01 11 00.

I. Environmental Inspector: City Representative who will be assigned as necessary to inspect the work and ensure compliance with all applicable permit conditions and mitigation measures. If the Environmental Inspector is a qualified biologist, they may perform tasks identified for Specialty Environmental Monitor ("Biological Monitor").

J. Environmental Review Officer ("ERO")

K. Final Environmental Impact Report ("FEIR")

L. Mitigation Monitoring and Reporting Program ("MMRP")

M. National Marine Fisheries Service ("NMFS")

N. National Pollutant Discharge Elimination System ("NPDES")

O. Regional Water Quality Control Board ("RWQCB")

P. San Joaquin Valley Air Pollution Control District ("SJVAPCD")

Q. Sensitive Resources: Biological species, cultural resources, or other resources that are to be protected from construction activities. Sensitive resources are identified in environmental permits and mitigation measures and include, but are not limited to, wetlands, streams, riparian vegetation, California red-legged frog, San Francisco garter snake, migratory birds, raptors, cultural and paleontological resources.

R. Specialty Environmental Monitor: City Representative who will monitor resource protection or conduct surveys within a specific area of expertise (cultural, biological, or paleontological resources) where required during construction.

S. Standard Construction Measures ("SCM"); The City has established Standard Construction Measures that are contained in the project's FEIR. As applicable, Contractor related measures are included in this section.

T. Stormwater Pollution Prevention Plan ("SWPPP")

U. Transmission Electron Microscopy Method ("TEM Method")

V. Ultraviolet (UV)

W. United States Fish and Wildlife Service ("USFWS")

X. United States Army Corps of Engineers ("COE")

1.05 SUBMITTALS

A. General – Contractor shall make submittals in accordance with Section 01 33 00.

B. The following Contractor plan submittal requirements are discussed in greater detail in the following paragraphs:

Project Engineer to add or delete submittal items listed below as applicable.

1. Asbestos Dust Mitigation Plan and Approval Letter from the BAAQMD APCO – Contractor shall submit this plan to the City Representative 28 days prior to beginning work for review and approval.

2. Backup Alarm/Route Plan – Contractor shall submit this plan to the City Representative 28 days prior to beginning work for review and approval.

3. Dewatering Plan – Submit to City Representative for review and approval 28 days prior to dewatering activities.

4. Dust Control Plan and Approval Letter from SJVAPCD – Submit to City Representative prior to site grading, demolition and excavation construction activities in the SJVAPCD.

5. Site Specific Dust Control Plan and Approval Letter from the San Francisco Department of Public Health ('SFDPH") – As per the San Francisco Dust Control Ordinance #176-08 and SF Health Code Article 22B, if the project site is greater than half an acre, submit this plan and DPH approval letter to the City Representative prior to site grading, demolition, or excavation construction activities. ***Project Engineer to delete this part 5 if the Project site is located outside of the City and County of San Francisco.***

6. Emergency Response Plan – Contractor shall prepare an Emergency Response Plan to be included in the Site-Specific Contractor Health and Safety Plan as defined in Section 00 73 19.

7. Final Conceptual Restoration and Revegetation Plan – Submit plan to City Representative after vegetation clearing has been completed and therefore final number of plants to be replanted has been determined by the Contractor.

8. Frac-out Contingency Plan (Required if the drilling method uses pressurized drilling fluids) – Submit to City Representative for review and approval 28 days prior to drilling with pressurized drilling fluids.

9. General Blasting Plan (identified as the General Controlled Detonation Plan in the MMRP and FEIR) – Submit to the City Representative for approval 28 days prior to blasting.

10. Hazardous Material Spill Prevention Control and Countermeasure Plan – Submit plan to City Representative for review and approval 28 days before construction begins.

11. Hazardous Spoil Material Disposal Plan - Submit plan to City Representative for review and approval 28 days before construction begins.

12. Nighttime Lighting Plan – Submit plan to City Representative 28 days prior to commencement of nighttime construction activities.

13. Noise and Vibration Control Plan – Contractor shall submit plan to the City Representative for review and approval, at least 28 days prior to commencing construction.

14. Site-Specific Contractor Health and Safety Plan – Contractor shall submit plan to the City Representative for review and approval in accordance with Section 00 73 19.

15. Solid Waste Management Plan – Contractor shall submit a Solid Waste Management Plan in accordance with Section 01 74 48.

16. Stormwater Pollution Prevention Plan – Submit plan to City Representative within 30 days of NTP and prior to any earthwork.

17. Traffic Control Plan – Submit plan to County for review and approval. Submit approved plan to City Representative.

C. The following report, inventory, log, photographic, and video submittal requirements are discussed in detail in following paragraphs:

Project Engineer to add or delete items from Submittals listing below as applicable.

1. Weather station (or portable anemometer) reading reports – Submit data to City Representative on a monthly basis throughout the duration of the project.

2. Air quality monitoring/ reporting at air shafts – Submit dust monitoring data to City Representative on a weekly basis throughout the duration of the project.

3. On-road truck inventory – Update the inventory and submit to City Representative on a monthly basis throughout the duration of the project.

4. Off-road equipment inventory – Update the inventory and submit to City Representative on a monthly basis throughout the duration of the project.

5. Construction vehicle maintenance log – Update the log and submit to City Representative on a monthly basis throughout the duration of the project.

6. Noise level reports – Submit noise level reports to City Representative on a weekly basis throughout the duration of the project. If noise levels are exceeded, submit noise level reports within 24 hours of exceedance.

7. Roadway video records – Submit pre-construction video prior to use of road and post-construction video of completion of construction.

8. Asbestos fiber analytical results – Submit asbestos fiber analytical results to City Representative on a weekly basis throughout the duration of the project.

9. RWQCB monitoring, testing, and reporting results – Submit monitoring, testing, and reporting results to City Representative on a weekly basis

throughout the duration of the project. If water quality levels are out of range, submit data in accordance with RWQCB permit requirements.

10. ISR Non-Residential Construction Schedule Fleet Supplemental Form for SJVAPCD – Submit to City Representative 45 days prior to construction activities.

11. Dust Control Records for SJVAPCD – Submit to City Representative monthly throughout construction.

12. SJVAPCD Notification – Submit copy of notification to City Representative prior to commencement of construction activities.

13. Historical Resource Photos – Submit copy of photographs to City Representative prior to construction and at the completion of construction activities.

1.06 QUALITY ASSURANCE

A. The City will inspect and monitor Contractor's adherence to the requirements specified herein and will report on Contractor's compliance pursuant to CEQA.

1. Said inspection, monitoring, and reporting activities may include, but are not limited to, qualitative, quantitative and photographic observations and data collection on the impacts of noise, vibration, air quality, traffic, street pavement damage, water quality, cultural resources, biological resources, and hazardous materials.

2. Contractor shall cooperate with such inspection and monitoring activities, provide access to the Work site to establish and secure monitoring stations, and make its facilities and records available to the City for performing such monitoring.

B. The City will issue a Non-Compliance Notice to the Contractor for any detected non-compliance with the provisions herein or of any environmentally objectionable acts and the corrective action to be taken.

1.07 ACCOUNTABILITY AND REMEDIAL ACTION

A. Contractor shall be held responsible for any damage resulting from Contractor operations, to natural vegetation, wildlife, cultural resources, waters of the United States and water quality, and any other environmental resources located either:

1. Outside the Work areas permitted in the Contract Documents or

2. Inside the Work areas but clearly marked by City on the Drawings or in the field to indicate that avoidance of that sensitive resource is required.

B. Requirements contained in this Section are based on conditions attached to the environmental permits and agreements obtained by the City. Violation of these conditions can result in monetary fines, requirements for restoration of or compensation for damage, additional environmental training, or stoppage of Work. Costs or fines resulting from non-compliance with the requirements of the Contract Documents or violation of conditions of permits and agreements shall be paid by the Contractor.

1.08 CHANGE REQUESTS AFFECTING ENVIRONMENTAL REQUIREMENTS

A. Should Contractor submit a Change Order Request ("COR") or propose some other type of change that may affect or propose modifying some aspect of the Project's environmental requirements, i.e., CEQA requirements, permit requirements, or agency agreements, the City Representative will conduct a preliminary review of such COR or change proposal to determine whether detailed review is warranted and can be completed within the timeframe needed by the Contractor. Note that such change requests may require concurrence from a regulatory agency (e.g., U.S. Army Corps of Engineers, US Fish and Wildlife Service, California Department of Fish and Game) or CEQA Lead Agency, and, therefore, the review process may require an extended period of time. In addition, note that such change requests may be approved, approved with conditions, or denied based on various factors.

1. If it does, the City Representative will determine if the preparation and processing of a Request for Variance ("RFV") by the City Representative is warranted and can be obtained within the timeframe needed by the Contractor. A RFV may require concurrence from a regulatory agency (e.g., U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, California Department of Fish and Game, etc.) and as such may be approved, approved with conditions, or denied based on various factors.

B. Requests that may require concurrence from a regulatory agency or the CEQA Lead Agency include but are not limited to the following types of requests:

1. New access roads and truck turnaround/turnouts including road widening

2. Use of private well, deep quarry pit, or reservoir for water source

3. Yards, staging areas, and extra work space, for example:

   a. Requests for use of yard or staging area that has a previously graded or otherwise improved (graveled or paved) surface.

   b. Request for use of a staging area or yard in a plowed or cultivated agricultural field.

   c. Request for use of extra workspace to store spoil, materials, or equipment outside of approved construction work limits.

C. In cases where the Contractor requests extra space outside the construction work limits shown on the drawings, such extra space shall not impinge upon the limits of sensitive resources shown on the environmental drawings or identified through field surveys. Additionally, requests to obtain water from a farmer or rancher's pond will not be approved if the pond is in potential sensitive resource habitat (e.g., California tiger salamander, California red-legged frog, Foothill yellow-legged frog, San Francisco garter snake, Alameda whipsnake, fairy shrimp, or tadpole shrimp).

1.09 ENVIRONMENTAL TRAINING PROGRAM

A. Contractor and all subcontractor personnel shall attend environmental training conducted by the City Representative prior to accessing or performing work in the project construction work limits.

B. Supervisory Level Training – All construction staff at the foreman level and above shall attend a training that will last no more than 4 hours. The training will be conducted at the project site office or as otherwise designated.

C. Crew Level Training – All other field personnel will attend a training that will last no more than 1 hour. The training will take place at the project site office, on an ongoing as-needed basis during construction. Contractor shall provide City Representative with at least 2 hours notice to perform these 1 hour trainings.

D. Prior to accessing or performing work in the work limits, all Contractor personnel and their subcontractors shall:

1. Sign an agreement acknowledging their intent to conform to the environmental measures addressed in the training program (provided by the City Representative after completion of the training).

2. Display an environmental training hard hat decal at all times when working within the project work limits (provided by the City Representative after completion of the training).

3. For any Contractor or subcontractor personnel involved in soil-disturbing activities, an archaeological resource "ALERT" sheet will be distributed at the training by the City Representative and Contractor and subcontractor personnel shall review said sheet.

E. City Representative may require Contractor personnel to attend additional environmental training in response to Contractor non-compliance.

PART 2 – PRODUCTS

2.01 MATERIALS

A. Hardware Cloth Fence: Fencing installed as required to prevent California red-legged frog and San Francisco garter snake from entering construction areas. Fencing material shall consist of ¼-inch mesh by 48-inch tall hardware cloth. The lower portion of the hardware cloth fence shall be buried in a six-inch trench such that 6 inches of the fence is buried and 42 inches is above ground. Fencing shall be secured to an orange barrier fencing with black UV cable ties and additional stakes as needed to ensure that the hardware cloth fence remains upright and does not fall over.

B. Imported Topsoil: Imported topsoil shall be fertile, friable soil of natural loamy character known as light or garden loam and contain a normal amount of organic matter. Imported topsoil shall be reasonably free from a preponderance of sand. Imported topsoil shall not contain subsoil, refuse, roots, heavy or stiff clay, stones larger than ¾", weeds, sticks, brush, litter, or other deleterious substances. Imported topsoil shall not contain obnoxious weeds such as morning glory, sorrel, oxalis, or Bermuda grass. Imported topsoil shall not contain toxic amounts of either acid or alkaline elements. Imported topsoil shall be capable of sustaining continuous healthy plant life.

C. Orange Barrier Fence: Fencing installed to prevent access to areas containing sensitive resources. As a minimum, orange plastic mesh fencing shall be provided 3 to 4 feet high, with stakes or posts every 6 to 10 feet as required for sturdy support.

D. Plywood Fence: Plywood fence, i.e., snake fence, shall be constructed of 4 x 8 foot sheets of sturdy construction sheet goods (½ inch exterior grade plywood, ½ inch oriented strand board), sunken 12 inches below the ground surface, with a minimum overlap of 3.5 inches between panels. Panels will be free of any holes or cracks. Panels will be attached to five-foot metal fence posts or T stakes, sunken a minimum of 18 inches below grade, with at least three-hardware attachment points on each post. Attachment points shall allow for the removal of multiple sections of fence during periods when the plywood fence is inactive. Biological Monitor will supervise the fence installation to ensure that trenching and other associated operations do not harm sensitive resources.

1. Fence shall include exit funnels for snakes along the entire fence. The exit funnels shall be installed at ground level, and secured to the snake fence with staples or other secure fasteners less than ½ inch apart. Funnels shall be constructed with 1/8-inch hardware cloth, with an opening greater than 8 inches in diameter where attached to the plywood fence and an exit diameter of 1-¼-inches that is elevated less than 1 inch from the ground surface. The exit opening shall be covered with a clear Mylar swing flap secured with a cable tie or metal wire at the top. As determined by the

Contractor in coordination with the City Representative, along select areas of fence, drainage holes will be constructed with 1/8-inch hardware cloth and secured to the plywood fence with staples less than ½ inch apart.

E. Silt Fence: Fencing installed to prevent sediments in runoff from construction areas from entering wetlands or other sensitive resource areas and fencing also installed to prevent wildlife from entering construction areas. As a minimum, fencing shall be tightly woven silt cloth (erosion cloth) or other approved material that is a minimum of 40 inches tall. The lower portion of the silt fence shall be buried in a trench, so that 4 to 6 inches of the material is buried and at least 36 inches is above ground surface. Fence shall be secured with stakes or posts every 5 feet as required to provide sturdy support. Silt Fencing shall be in accordance with local and State Guidelines for Best Management Practices.

Project Engineer to add or delete items to the above 'Products' listing as applicable.

PART 3 – EXECUTION

3.01 *[MANUAL INSERT FIELD – MMRP REQUIREMENTS*

A. ***Project Engineer to include the Contractor responsibilities from the MMRP for the following resource areas, if applicable. If biological resource mitigation relates more directly to air quality, then include it in the air quality section instead of under the biological section. If there are "Cumulative" mitigation measures, include those measures under the appropriate heading. If the Contractor has no responsibilities under the resource area, delete the resource area. Work with the PE and EPM to complete this section. Cross-check requirements in this section with other sections listed in "Related Documents and Sections" and eliminate conflict to the extent feasible. Redundancy is acceptable but should be eliminated as much as possible to avoid discrepancies and potential conflicts.***

1. ***The mitigation measures provided below are from the PEIR and/or developed by BEM as they are expected to be required for many projects. If these measures are not applicable to your project, delete them. If they are, compare the standard language provided below to the project-specific mitigation measures to verify that they are consistent. If there is a discrepancy, the project-specific requirement supersedes the standard PEIR mitigation measures.***

2. ***Recommend that the actual mitigation measure be referenced [e.g., AQ-1A] so that they can be easily distinguished as coming from a CEQA mitigation measure. Also, this will assist the Environmental Inspectors and Specialty Environmental Monitors when reporting field compliance as they will have to reference the mitigation measure.***

B. ***Project Description Requirements – Include requirements that were identified in the project description that are related to the Contractor's responsibilities. For example, if the project description states that no nighttime work will be conducted, include that as a requirement under the appropriate heading. If the requirement is already included elsewhere in the Contract Documents then it isn't necessary to repeat in PART 3. Work with the PE and EPM to complete this section.]***

3.02 TIMING AND SCHEDULE RESTRICTIONS

A. ***[Manual insert field – Project Engineer: Summarize any known timing or schedule restrictions (e.g., stream crossings, known special status species habitat restrictions, clearing restrictions, etc.)]***

3.03 LAND USE

[Manual insert field – Project Engineer: PEIR mitigation measures primarily relate to landscaping and the requirement to create a Landscaping Plan. If this is a requirement of the project, EPM needs to ensure that City prepares a landscape and irrigation drawing showing the planting/irrigation requirements. Landscape Plans are not prepared by the Contractor. If landscape and irrigation drawings are prepared then corresponding Sections 32 90 00 Planting and 32 84 00 Planting Irrigation need to be prepared/included in the Contract Documents (e.g., Sections 32 90 00 Planting and 32 84 00 Planting Irrigation). Also, determine if seeding is being performed at the site and if it includes applicable Section 31 31 19 Revegetation.]

3.04 AESTHETICS AND VISUAL RESOURCES

A. Nighttime Lighting Plan – Contractor shall prepare and implement a Nighttime Lighting Plan to control light and glare. See Section 01 50 00 Temporary Facilities and Controls for minimum plan requirements.

3.05 GEOLOGY AND SOILS

A. Contractor shall monitor work areas and tunnel alignment for subsidence during tunneling, including measurements of groundwater levels, surface and subsurface settlement, ground movement and displacement, and movement in existing infrastructure as determined necessary by the Contractor and the City. Contractor shall implement corrective actions, such as increased tunnel support, if displacement is significant as determined in the field by the City.

3.06 HYDROLOGY AND WATER QUALITY

A. General Requirements

1. Stormwater Pollution Prevention Plan ("SWPPP") – Contractor shall prepare and implement a SWPPP for all projects disturbing greater than one acre.

2. For projects in areas not covered by a municipal stormwater permit and disturbing less than one acre of land during construction, Contractor shall implement appropriate source control measures that (a) Prevent off-site erosion and flooding and (b) Minimize stormwater pollutant discharges to the extent possible. Measures shall be implemented to ensure compliance with applicable water quality criteria and goals and protect the beneficial uses of the receiving water. [PEIR 4.5-6] Project Engineer: For projects greater than one acre, delete this bullet. Specifier: identify what permit/General Waiver applies to project and include it as an attachment and list in Section 00 73 00.

3. Contract shall inspect, maintain, and repair all erosion and sediment controls installed.

B. Flood Zone Encroachment

1. Contractor shall stockpile soil, store hazardous materials, and stockpile construction materials outside of a designated flood zone, to the extent practicable. ***Project Engineer: For projects where this is applicable, flood zone needs to be shown on the Site Drawing or otherwise described in a narrative format here.***

2. Where construction would occur in large flood zones, making it impractical to prevent storage of materials in the flood zone, Contractor shall identify in the SWPPP the erosion and sediment control measures to be implemented to protect stockpiled soil, sources of hazardous materials, and stockpiled construction materials from exposure to flood waters. ***Project Engineer to add this requirement to Section 01 57 23 if applicable to project so that Contractor addresses it in their SWPPP***.

C. Micro-tunneling

1. Drilling fluids shall contain only water and bentonite or similar inert substances, which shall be subject to approval by the City before tunneling can begin.

2. Drilling-Contingency Plan - Contractor shall prepare and implement a Drilling-Contingency Plan (i.e., frac-out contingency plan) for any tunneling activities that use pressurized drilling fluids (other than water) in the event of an inadvertent release (frac-out). See Section ***03 60 XX Pre-Excavation Grouting Project Engineer confirm section number, section title, and name of plan in Section 03 60 XX, may be called the Frac-out Contingency Plan.*** for minimum requirements of the Drilling-Contingency Plan.

3. Contractor shall install a silt fence or soil berm barrier along the creek side of the launching and receiving pits for the drilling (start and end points of

the micro-tunnel) to prevent drilling fluids from the work area from being carried to the creek.

4. Drilling fluids may be dewatered on-site only if approved by regulatory permitting agencies and at the direction of the City or be properly disposed of off-site at a commercial disposal site or other site approved by City. ***Project Engineer to confirm what is permitted for the project.***

5. Contractor shall provide minimum one on-site monitor during drilling operations to look for observable inadvertent release or frac-out conditions or lowered pressure readings on drilling equipment that may indicate a potential frac-out.

6. If Contractor and/or drilling-machine operator suspect that there is a frac-out, i.e., notices a loss of circulation of drilling fluid and cuttings do not show a large quantity of gravel, or drilling fluid is observed at the surface, Contractor shall stop work and notify the City. ***Project Engineer to delete if already in Section 03 60 XX or other section with Drilling-Contingency Plan requirements.***

7. In the event of a frac-out, Contractor shall cease drilling, including the recycling of drilling fluid, notify the City, and implement measures to stop the frac-out, such as reducing the drilling pressure or thickening the drilling fluid (e.g., by using less water). If the drilling fluid does not surface, no other actions will be taken and, at the direction of the City, drill can resume. ***Project Engineer delete if already in Section 03 60 XX or other section with Drilling-Contingency Plan requirements.***

8. If the drilling fluid surfaces, Contractor shall surround affected area with a barrier (e.g., silt fence) to prevent further dissemination of the fluid. If the drilling fluid is released into Alameda Creek when there is flow and there is a visible plume, a sediment boom or curtain shall be installed downstream of the frac-out to attempt to capture the released drilling fluid. ***Project Engineer delete if already in Section 03 60 XX or other section with Drilling-Contingency Plan requirements.***

9. Contractor shall remove drilling fluid if released in a wetland area using minimum amount of equipment needed to remove it (e.g., manually or by suction hose using a vacuum truck) so to minimize impacts to the surface area where the frac-out occurred. ***Project Engineer delete if already in Section 03 60 XX or other section with Drilling-Contingency Plan requirements.***

10. Contractor may resume drilling upon approval by the City once frac-out is contained and measures have been implemented to minimize potential for continued release. ***Specifier delete if already in Section 03 60 XX or other section with Drilling-Contingency Plan requirements.***

D. Groundwater Dewatering

1. All discharges shall comply with required permits from the Regional Water Quality Control Board.

2. Dewatering Plan – Contractor shall prepare and submit to the City for review and approval a Dewatering Plan prior to any discharges. See Section 31 23 19 for plan requirements. ***Project Engineer: note that Section 31 23 19 may call the plan Construction Water Discharge Plan so revise plan name so that it is same in Sections 31 23 19 and 01 35 43***.

3. Discharging to Surface Waters – Groundwater shall be properly treated before being discharged to surface waters per RWQCB permit conditions. Project Engineer states which permit is applicable to this activity and confirm that a permit has been obtained to discharge to surface waters.

4. Discharging to Upland Areas – Contractor shall comply with RWQCB permit conditions for discharging to upland areas***. Project Engineer to state which permit is applicable to this activity.*** Discharges to upland areas shall not reach surface waters. Contractor shall implement a method to remove sediment from the groundwater prior to discharging to upland areas, such as discharging to a sedimentation basin, Baker Tank, or filter bags in accordance with RWQCB permit conditions. Locations for discharges and methods to control discharges shall be described in Contractor's Dewatering Plan. ***Project Engineer: Confirm that a permit has been obtained to discharge to land or if it is being performed under a General Waiver. Also confirm whether or not there are any requirements for a Contractor submittal to RWQCB prior to discharging to land such as a NOI. If discharging to land is covered under a General Order then identify the General Order and include the General Order as a permit attachment.***

5. The Contractor shall discharge water in a manner that does not cause erosion or scour to upland area or surface waters. For erosion/scour protection measures, see Section 31 23 19. Any erosion-related bed or bank or vegetation loss shall be restored by Contractor, including replanting riparian vegetation as needed, to restore stream function and habitat values. ***Project Engineer to identify correct reference: See Section 31 31 19 for revegetation requirements.***

E. Pipeline Dewatering

1. All discharges shall comply with required permits from the RWQCB. See Section [Manual insert field] State where the permit is located, in a Section or Appendix or Attachment. for permit. Project Engineer to state which permit is applicable to this activity.

2. Prior to discharges of potable water to surface waters, Contractor shall sample discharges for conformance to RWQCB permit requirements.

3.07 PROTECTION OF CULTURAL RESOURCES

Project Engineer to insert standard mitigation measures, if applicable.

A. General

1. Contractor shall conform to the requirements of statues as they relate to the protection and preservation of cultural resources (i.e., archaeological, historical, and paleontological resources) as defined in the MMRP and Section 00 73 25.

2. Unauthorized collection of prehistoric, historic, or fossil materials is strictly prohibited.

3. Training: All Contractor personnel and subcontractors shall attend training conducted by the City Representative discussing the nature of cultural resources and potential materials that may be encountered.

   a. The City will distribute the San Francisco Planning Department archaeological resource "ALERT" at this training. ***[SFPUC CM #9]***

B. Archaeological Resources

1. Based on the reasonable potential that cultural resources may be present in the project area, the following measures shall be undertaken to avoid any potentially significant adverse effect from the proposed project on buried or submerged cultural resources:

   a. A City Representative or Specialty Environmental Monitor – archaeologist, shall be present during excavations (e.g. soil disturbing activities) at ***[Manual insert field]*** ***Project Engineer: If Specialty Environmental Monitoring is required, identify location here and include in note/location on applicable civil drawings.*** Contractor shall be responsible for confirming that the required Specialty Environmental Monitor is on-site as required prior to performing said Work.

   b. Contractor shall install perimeter fencing and/or signs to protect cultural resources under the supervision of the City Representative or Specialty Environmental Monitor – archaeologist. The cultural resources are located at ***[Manual insert field]***. ***Project Engineer: If there are cultural resources in the project area that require fencing/flagging identify here along with required protective measures. Also, show location for required protective fencing on drawings and indicate drawing number here.***

C. Historical Resources

1. Contractor shall install perimeter fencing and/or signs to protect historical resources under the supervision of the City Representative. The historical resources are located at ***[Manual insert field]*** ***Project Engineer: If there are historical resources in the project area that require fencing/flagging identify here along with required protective measures. Also, show location for required protective fencing on drawings and indicate drawing number here.***

2. Contractor shall not store equipment and materials adjacent to historical resources. Contractor shall implement the Historical Resources Protection Plan that will be prepared by the City. ***Project Engineer: Ensure that the plan is attached to the Contract Documents and state where located. Remove if no historical plan.***

   a. In advance of construction on or near historical resources covered in the plan, Contractor shall meet with the City to discuss how their proposed construction activities will be consistent with the Historical Resources Protection Plan.

   b. Historical Resource Photographs – Contractor shall take photographs of all historical resources to be protected before beginning work and upon completion of work. Contractor shall submit photographs to City Representative prior to beginning work and after construction is complete.

   c. Contractor shall monitor the historical resources for damage, including from vibration due to equipment working nearby, during construction. If during construction historical resources are inadvertently affected; Contractor shall cease work in the immediate vicinity, notify the City, and resume work only at the direction of the City, who will consult with an architectural historian as necessary.

3. Unanticipated Discoveries

   a. If potential historical or archaeological resources including human remains are discovered during construction, Contractor shall implement the following procedures (a) suspend all soil disturbing activities within 50 feet of the discovery; (b) immediately notify the City Representative, and (c) install fencing or staking to prevent vehicles, equipment or personnel from entering the area. See Section 00 73 25. ***[SFPUC CM #9]***

   b. If required by the nature of the unanticipated discovery encountered and as directed by the City, Contractor shall relocate operations and adjust their construction schedule to allow implementation of appropriate archaeological management procedures by the City.

Cost or time impacts as a result of a suspension shall be resolved as described in Section 00 73 25.

c. Contractor shall not resume work in effected area until approved by the City. The City will issue a written order to suspend work in accordance with Paragraph 14.02 of Section 00 72 00.

3.08 TRAFFIC, TRANSPORTATION, AND CIRCULATION

Project Engineer to insert standard mitigation measures, if applicable.

A. Contractor shall comply with all federal, state, local, and any governing authority regarding their construction traffic operations.

B. Traffic Control Plan – Contractor shall prepare and implement a Traffic Control Plan. Traffic Control Plan shall minimize the impacts on traffic and on-street parking on any streets affected by construction of the project. To the extent applicable, the Traffic Control Plan should conform to Caltrans Manual of Traffic Controls for Construction and Maintenance Work Zones. See Section 01 55 26 for minimum requirements of Traffic Control Plan.

Project Engineer: Include traffic-related mitigation measures in Section 01 55 26 rather than in Section 01 35 43. Note that many of the following measures from the PEIR 4.8-1a may already be addressed in Section 01 55 26 so delete any duplication.

C. Contractor shall include plans for circulation and detours in their Traffic Control Plan to minimize impacts on local street circulation.

D. Contractor shall identify truck routes designated by cities and counties in their Traffic Control Plan. Haul routes that minimize truck traffic on local roadways and residential streets shall be utilized to the extent possible.

E. Contractor shall schedule truck trips on major arterial roads outside of the peak morning and evening commute hours to the extent possible.

F. Lane closures shall be limited to non-peak hours to the extent possible. Outside of allowed working hours or when work is not in progress, Contractor shall restore roads to normal operations, with all trenches covered with steel plates, unless other agreement is arranged with the City and applicable local agency.

G. Pipeline construction work in roadways shall be limited to a width that, at a minimum, maintains alternate one-way traffic flow past the construction zone, unless other agreement is arranged with the City and applicable local agency. Contractor parking along the roadway may be prohibited if necessary to facilitate construction activities or traffic movement. If a minimum 10-foot-wide travel lane can not be maintained, the road will be closed to through-traffic (except emergency vehicles) and detour signing on alternative access roads shall be installed.

H. Pedestrian and bicycle access and circulation shall be maintained during project construction where safe to do so. If construction activities encroach on a bicycle lane, Contractor shall post warning signs to indicate bicycles and vehicles are sharing the lane.

I. Detours shall be provided for bicycles and pedestrians in all areas potentially affected by project construction.

J. Contractor shall maintain at least one travel lane for through traffic at all times or designate a detour route as identified in coordination with the City.

K. Contractor shall implement roadside safety protocols. At a minimum Contractor shall provide advance "Road Work Ahead" warning signs and speed control (including signs informing drivers of state-legislated double fines for speed infractions in a construction zone) to achieve required speed reductions for safe traffic flow through the work zone.

L. Contractor shall coordinate with facility owners or administrators (e.g., police, fire stations, transit stations, hospitals, schools, etc.) in advance of the timing, location, and duration of construction activities and the locations of detours and lane closures.

M. Contractor shall coordinate with local transit service providers, including temporary relocation of bus routes or bus stops in work zones as necessary.

N. In the event that more than one construction contract is issued for work in the same vicinity, Contractor, with the assistance of the City, shall coordinate the traffic control plans to address overlapping construction schedules and activities, truck arrivals and departures, lane closures and detours, and the adequacy of on-street staging requirements to minimize impacts to public rights-of-way. ***Project Engineer to determine if this measure is applicable to the project.***

O. If construction will impact designated parking areas for recreational facilities, Contractor shall address additional measure that will be implemented to accommodate any anticipated visitor parking demand that would be displaced by project related vehicles at public recreational facilities. ***Project Engineer to determine if this measure is applicable to the project. Also confirm if this will be performed by CM firm rather than Contractor.***

3.09 AIR QUALITY AND GREENHOUSE GAS EMISSIONS

Project Engineer to insert standard mitigation measures, if applicable.

Project Engineer: Include dust control related measures in Section 01 50 00 rather than in Section 01 35 43. Note that many of the following measures from the PEIR measures 4.9-1a & b (for SJVAPCD) and 4.9-1c & d (for BAAQMD) may already be addressed in Section 01 50 00 so delete any duplication.

A. Contractor is informed that criminal and/or civil penalties may be imposed on any person who violates any rule, regulation, permit or Order of the State Air Resources Board or an Air Quality Control District that is adopted to control and contain air emissions.

B. This project would result in emissions of greenhouse gases ("GHG") that may contribute to global climate change. The Contractor shall ensure the following measures to reduce GHG emissions:

1. Training: All Contractor personnel and subcontractors shall attend training conducted by the City Representative discussing greenhouse gas emissions.

2. Contractor shall maintain tire inflation to the manufacturers' inflation specifications.

C. On-road Truck Inventory – Contractor shall ensure all construction equipment with engines equal to or greater than 50 horsepower consist of Tier 2 diesel engines as defined in Title 13, CCR, §2485 and must be equipped with Level 3 Diesel Emission Control Strategies as defined in Title 13, CCR, §2700 through 2710. To this end, Contractor shall:

1. Submit a comprehensive inventory of all on-road trucks. The inventory shall include each vehicle's license plate number, the engine production year, and a notation of whether the truck is in possession of an Emission Control Label as defined in Title 13, CCR. Contractor shall update the inventory and submit it monthly to the City throughout the duration of the project.

2. Off-road Truck Inventory – Contractor shall ensure all construction equipment with engines equal to or greater than 50 horsepower consist of Tier 2 diesel engines as defined in Title 13, CCR, §2485 and must be equipped with Level 3 Diesel Emission Control Strategies as defined in Title 13, CCR, §2700 through 2710. To this end, Contractor shall:

a. Submit a comprehensive inventory of all off-road construction equipment. The inventory shall include each vehicle's license plate number, the engine production year, and a notation of whether the truck is in possession of an Emission Control Label as defined in Title 13, CCR. Contractor shall update the inventory and submit it monthly to the City throughout the duration of the project.

3. Maintenance Log – All equipment shall be property tuned and maintained in accordance with manufacturer specifications. Contractor shall perform monthly maintenance of all construction vehicles and implement preventive maintenance. To this end, Contractor shall:

a. Maintain a Maintenance Log indicating for each vehicle the date and a description of all preventative maintenance, the individual who

performed the maintenance; and other information related to the vehicle. The maintenance log shall be submitted to the City monthly throughout the duration of the project.

4. For tunnel projects, if hydrogen sulfide gas or any other odorous gases (including diesel exhaust) are encountered during tunnel excavation and become a nuisance or odor problem, i.e. odor complaints are received, Contractor shall add water scrubbers to the ventilation system and appropriate chemicals will be added to remove the nuisance odors. ***Project Engineer include if tunnel project.***

5. When feasible, use alternative fuel or electrical construction equipment.

6. Contractor shall inform the City in writing and obtain City approval prior to any sale, supply, or offer to sell any excavated material. Contractor shall submit a Request for Deviation for disposal of excavated material in non-commercial sites. These requests may also require a Request for Variance.

Project Engineer: BAAQMD requirements below are applicable to all projects in Sunol Valley, Bay Division, and Peninsula Regions.

7. The Contractor is responsible for any damage resulting from dust originating from its operations.

8. In accordance with Section 00 73 00/APB Contractor shall obtain all permits and notifications from Bay Area Air Quality Management District and the California Air Resources Board. ***Project Engineer to confirm that Contractor will be required to get these permits and if yes, identify which permits and notifications may be required. If SFPUC is obtaining permits then list permits that SFPUC is obtaining in Section 00 73 00/APA.***

9. Contractor shall not emit particles from any operation in sufficient number to cause annoyance to any other person, and shall not emit particles large enough to be visible as individual particles at the emission point or of such size and nature as to be visible individually as incandescent particles (BAAQMD Regulation 6-305, Particulate Matter and Visible Emissions, (**http://www.baaqmd.gov/dst/regulations/rg0601.pdf**).

Project Engineer: BAAQMD requirements below are applicable to all projects within the City and County of San Francisco.

10. In accordance with the San Francisco Building Code Section 106A.3.2.6 Construction Dust Control Ordinance #176-08, and San Francisco Health Code Article 22B, all site preparation work, demolition, or construction activities within the City and County of San Francisco that have the potential to create dust or will expose or disturb more than 10 cubic yards

or 500 square feet of soil shall comply with the Dust mitigation controls specified in this Section.

11. Site Specific Dust Control Plan – In addition, the Contractor shall submit a Site Specific Dust Control Plan for projects within the City and County of San Francisco and applicable fee to the Department of Public Health if the project involves an area greater than half an acre of disturbed surface area. Failure to comply with all applicable requirements for dust control and the Site Specific Dust Control Plan approved by the Director of Public Health shall be considered a violation of the Dust Control Ordinance.

12. For projects within the City and County of San Francisco the Contractor shall submit Dust Control Plan approval letter from DPH and copy of Dust Control Plan to City Representative prior to earth moving activities.

13. Contractor shall implement the following measures for dust control, i.e., PM_{10}:

    a. Water all active construction areas at least twice daily.

    b. Cover all trucks hauling soil, sand, and other loose materials or maintain at least two feet of freeboard on public roads. Trucks used for spoils hauling shall be maintained such that no spillage can occur from holes or other openings in cargo compartments.

    c. Pave, apply water three times daily, or apply (nontoxic) soil stabilizers to all unpaved access roads, parking areas, and staging areas at construction sites.

    d. Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites.

    e. Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.

    f. For wet sweeping use a vacuum sweeper vehicle with sufficient suction to ensure that the vehicle does not blow dust towards neighboring businesses or residences. The City Representative will evaluate the effectiveness of the Contractor's vacuum sweeper vehicle and, if necessary, will require the Contractor to provide a more powerful and effective vehicle.

14. Contractor shall implement the following additional BAAQMD measures for dust control, i.e., PM_{10}, to sites over four acres: ***Project Engineer to include these measures on a project specific basis:***

    a. Hydroseed or apply (nontoxic) soil stabilizers to inactive construction areas, i.e., previously graded areas inactive for ten days or more.

    b. Exposed stockpiles (soil, sand, etc.) shall be stabilized through placement and covered with 10 mils (0.01 inch) polyethylene plastic

or equivalent tarp and braced down, periodically wetting the materials, chemical stabilizer/suppressant, or other method proposed by Contractor and accepted by the City for as long as they are on-site, including during periods of work stoppages, overnight, weekends, and holidays.

c. Limit traffic speeds on unpaved roads to 15 mph.

d. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.

e. Replant vegetation in disturbed areas as quickly as possible.

15. Contractor shall implement the following additional BAAQMD measures for dust control, i.e., PM_{10}, to construction sites that are large, located near sensitive receptors, or which for any other reason warrant additional emissions reductions: ***Project Engineer to include these measures on a project specific basis:***

a. Install wheel washers for all exiting trucks, or all trucks and equipment leaving the site shall be washed off.

b. Wind-breaks or trees/vegetative wind-breaks shall be installed at windward side(s) of construction areas.

c. Limit the area subject to excavation, grading, and other construction activity at any one time.

16. Contractor shall implement the following BAAQMD measures to limit engine exhaust emissions:

a. Use grid power instead of diesel generators where it is feasible to connect to grid power. While it may not be practical to connect to grid power for pipeline projects (since construction sites keep moving along the alignments), grid power shall be used for projects with fixed locations, such as tunnel entry and exist shafts/portals.

b. Limit the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds, both California- or non-California-based trucks) to 30 seconds at a school or 5 minutes at any location in accordance with Sections 2480 and 2485, Title 13, CCR. In addition, the use of diesel auxiliary power systems and main engines shall be limited to five minutes when within 100 feet of homes or schools while the driver is resting.

c. Contractor's operations shall be in accordance with Section 93115, Title 17, CCR, Airborne Toxic Control Measure for Stationary Compression Ignition Engines that specifies fuel and fuel additive requirements; emission standards for operation of any stationary, diesel-fueled, compression-ignition engines; and operation restrictions within 500 feet of school grounds when school is in

session. ***Project Engineer to define whether or not a school is located within 500 feet of the project.***

d. Low-sulfur fuels shall be used in all stationary and mobile equipment.

Project Engineer: SJVAPCD requirements below are applicable to all projects in the San Joaquin Region only.

17. The Contractor is responsible for any damage resulting from dust originating from its operations.

18. In accordance with Section 00 73 00/APB Contractor shall obtain all permits and notifications from San Joaquin Valley Air Pollution Control District (SJVAPCD) and the California Air Resources Board. ***Project Engineer to confirm that Contractor will be required to get these permits and if yes, identify which permits and notifications are required. If SFPUC is obtaining permits then list permits that SFPUC is obtaining in Section 00 73 00/APA.***

19. SJVAPCD Notification – In accordance with SJVAPCD Rule 8021, for non-residential construction sites ranging from 1.0 to less than 5.0 acres in area, Contractor shall provide written notification at least 48 hours prior to intent to commence any earthmoving activities. Contractor shall provide copy of notification to City Representative.

20. Dust Control Plan – In accordance with SJVAPCD Rule 8021, Contractor shall submit a Dust Control Plan and applicable fee to the SJVAPCD if the project involves: (a) 5 or more acres of disturbed surface area, or (b) moving, depositing, or relocating of more than 2,500 cubic yards per day of bulk materials on at least 3 days of the project.

    a. In accordance with SJVAPCD Rule 8021, at least one key Contractor representative or any person who prepares a Dust Control Plan shall complete a Dust Control Training Course presented by the SJVAPCD.

    b. The Dust Control Plan form for the SJVAPCD is available on-line at **http://www.valleyair.org/busind/comply/PM10/forms/DCP-Form.doc**.

    c. Contractor shall submit Dust Control Plan approval letter from SJVAPCD and copy of Dust Control Plan to City Representative prior to earth moving activities.

    d. Dust Control Records – Contractor shall complete record keeping forms for dust control activities in accordance with SJVAPCD Regulation VIII. Form templates are available on-line at **http://www.valleyair.org/busind/comply/PM10/forms/Reg%20VIII%20Forms%20Summary.pdf** or Contractor can submit other

form templates to SJVAPCD along with their Dust Control Plan. Contractor shall submit dust control records to City Representative on a monthly basis.

21. Contractor shall comply with SJVAPCD Rules as applicable to the Contractor's activities. Additionally, Contractor shall implement the following dust control measures, i.e., PM_{10}, that apply to all construction sites:

    a. All disturbed areas, including storage piles, that are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, covered with a tarp or other suitable cover, or vegetative ground cover.

    b. All onsite unpaved roads and offsite unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.

    c. All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.

    d. When materials are transported off-site, all material shall be covered, or effectively wetted to limit visible dust emissions, and at least 6 inches of freeboard space from the top of the container shall be maintained. Trucks used for spoils hauling shall be maintained such that no spillage can occur from holes or other openings in cargo compartments.

    e. All operations shall limit or expeditiously remove the accumulation of mud or soil from adjacent public streets at the end of each workday. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.

    f. Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions utilizing sufficient water or chemical stabilizer/suppressant.

    g. Within urban areas, trackout shall be immediately removed when it extends 50 or more feet from the site.

    h. Any site with one hundred fifty or more vehicle trips per day shall prevent and mitigate carryout and trackout as follows in accordance with SJVAPCD Rule 8041:

1) Installing and maintaining a trackout control device:

A) Grizzlies or other similar device designed to remove dirt/mud from tires, the devices shall extend from the intersection with the public paved road surface for a distance of at least 25 feet, and cover the full width of the unpaved exit surface for at least 25 feet.

B) For use of gravel pads, coverage with gravel shall be at least one inch or larger in diameter and at least 3 inches deep, shall extend from the intersection with the public paved road surface for a distance of at least 50 feet, and cover the full width of the unpaved exit surface for at least 50 feet. Any gravel deposited onto a public paved road travel lane or shoulder must be removed at the end of the workday or immediately following the last vehicle using the gravel pad, or at least once every 24 hours, whichever occurs first.

C) For use of paving, paved surfaces shall extend from the intersection with the public paved road surface for a distance of at least 100 feet, and cover the full width of the unpaved access road for that distance to allow mud and soil to drop off of vehicles before exiting the site. Mud and soil deposits accumulating on paved interior roads shall be removed with sufficient frequency, but not less frequently than once per workday, to prevent carryout and trackout onto paved public roads.

22. Contractor shall implement the following additional measures for dust control, i.e., PM_{10}, to sites that are anticipated to have significant PM_{10} impacts ***Specifier to include these measures on a project specific basis based on mitigation measure requirements.:***

a. Traffic speeds on unpaved roads shall be limited to 15 mph.

1) Contractor shall post speed limit signs that meet State and Federal Department of Transportation standards at each construction site's uncontrolled unpaved access/haul road entrance. At a minimum, speed limit signs shall also be posted at least every 500 feet and shall be readable in both directions of travel.

b. Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than 1 percent.

23. Contractor shall implement the following additional measures for dust control, i.e., PM10, to construction sites that are large in area, located near sensitive receptors, or which for any other reason warrant additional

emissions reductions: ***Project Engineer to include these measures on a project-specific basis based on mitigation measure requirements.:***

a. Wheel washers shall be installed for all exiting trucks, or all trucks and equipment leaving the site shall be washed off.

b. Wind breaks shall be installed at windward side(s) of construction areas.

c. Excavation and grading activity shall be suspended when winds exceed 20 mph and, regardless of windspeed, Contractor shall comply with Regulation VIII's 20 percent opacity limitation.

d. The area subject to excavation, grading, and other construction activity at any one time shall be limited.

24. SJVAPCD Rule 9510, Indirect Source Review ("ISR"), Section 6.1, Construction Equipment Emissions applies to any project that ultimately results in the construction of a new building, facility, or structure or reconstruction of a building, facility, or structure for the purpose of increasing capacity or activity and also involving 9,000 square feet of space. Contractor shall implement the following measures to limit construction equipment emissions pursuant to Rule 9510: ***Project Engineer to determine whether or not this applies to the project.***

a. ISR Non-Residential Construction Schedule Fleet Supplemental Form – Contractor shall complete the SJVAPCD ISR Non-Residential Construction Schedule Fleet Supplemental Form (e.g., Detailed Fleet Form) and submit to City Representative 45 days prior to construction activities. The form is available on **http://www.valleyair.org/ISR/ISRFormsAndApplications.htm**. City Representative will prepare and submit the project's Air Impact Assessment, including the Contractor's fleet form, to the SJVAPCD.

1) The exhaust emissions for construction equipment greater than 50 horsepower used or associated with the project shall be reduced by the following amounts from the statewide average as estimated by the Air Resources Board:

A) 20% of the total NOx emissions, and

B) 45% of the total PM_{10} exhaust emissions.

2) Contractor may reduce construction emissions on-site by using less-polluting construction equipment, which can be achieved by utilizing add-on controls cleaner fuels, or newer lower emitting equipment.

25. Contractor shall implement the following BAAQMD and SJVAPCD measures to limit engine exhaust emissions for heavy-duty equipment (scrapers, graders, trenchers, earthmovers, etc.): ***Project Engineer, PEIR***

states that "The SFPUC will include these measures, where applicable, in contract specifications."

a. Alternative-fueled or catalyst-equipped diesel construction equipment shall be used.

b. Idling time (e.g., 10-minute maximum) shall be minimized.

c. The hours of operation of heavy-duty equipment and/or the amount of equipment in use shall be limited.

d. Fossil-fueled equipment shall be replaced with electrically driven equivalents (provided they are not run via a portable generator set).

e. Construction shall be curtailed during periods of high ambient pollutant concentrations; this may include ceasing construction activity during the peak hour of vehicular traffic on adjacent roadways.

f. Activity management (e.g., rescheduling activities to reduce short-term impacts) shall be implemented.

Project Engineer: Delete the following Article "NOISE AND VIBRATION" as well as Section 01 56 55 'Temporary Noise and Vibration Controls' if noise is not an environmental factor.

3.10 NOISE AND VIBRATION

A. See Section 01 56 55 Temporary Noise and Vibration Controls and Section 31 71 16 Drilling and Blasting, Tunnel Excavation" for Contractor requirements.

B. Noise and Vibration Control Plan – Contractor shall prepare and submit to the City for review and approval, at least 30 days prior to commencing construction, a Noise and Vibration Control Plan in accordance with requirements in Section 01 56 55.

C. Controlled Detonations Plan – Contractor shall prepare a Controlled Detonations Plan that shall be submitted to the City at least 30 days prior to the first blasting operations in accordance with requirements in Section 31 71 16.

3.11 PUBLIC SERVICES AND UTILITIES

Project Engineer to insert standard mitigation measures, if applicable.

A. Contractor shall implement requirements in Section 01 71 33 Protection of Adjacent Construction.

B. In the event construction disrupts service provided by another utility, Contractor shall implement corrective actions immediately and notify the City as soon as practicable.

C. Contractors shall protect, support, or remove underground utilities as necessary to safeguard employees promptly reconnect any disconnected utility lines.

D. Contractor shall notify local fire departments any time damage to a gas utility results in a leak or suspected leak, or whenever damage to any utility results in a threat to public safety.

E. Emergency Response Plan – Contractor shall prepare an Emergency Response Plan to be included in the Site-Specific Contractor Health and Safety Plan as defined in Section 00 73 19. Emergency response procedures in the event of a leak or explosion associated with inadvertent encounter of utility lines shall be included as part of the Emergency Response Plan.

F. Contractor shall obtain any necessary waste management permits prior to construction and comply with any conditions of approval. ***Project Engineer to identify permits that are required here and/or refer to Section 00 73 00/APA – Appendix A: Permits and Agreements to be Obtained by the City and list the required permits in that document***.

1. Solid Waste Management Plan – As part of the waste management permit process, Contractor shall submit a Solid Waste Management Plan in accordance with Section 01 74 48 that shall include, but not necessarily be limited to, the following:

   a. Contractor shall divert at least 50% of inert solids (asphalt, brick, concrete, dirt, fines, rock, sand, soil, and stone) from disposal in a landfill.

3.12 BIOLOGICAL RESOURCES

Project Engineer to insert standard mitigation measures, if applicable

A. Training: Contractor personnel and subcontractors shall attend an environmental training program conducted by the City Representative that discusses biological resources including but not limited to California red-legged frog, San Francisco garter snake, San Francisco dusky footed woodrat, Southwestern pond turtle, and noxious weeds. ***Project Engineer to add/delete topics based on mitigation measures.*** The training will include a description, representative photographs, and legal status of each special-status species and the penalties for not complying with biological mitigation requirements.

B. Notices: Contractor shall provide City Representative with a minimum of 2 weeks notice prior to commencing with initial ground-disturbance activities, including mobilization of any equipment, fencing activities, clearing activities, or ground disturbing activities, to allow for the City Representative's Specialty Environmental Monitor to conduct preconstruction surveys of the area.

C. Construction Limits: Contractor shall confine all construction equipment to designated work zones (including access roads and staging areas) within the project area.

1. Before construction begins, Contractor shall clearly stake and flag, or fence-off construction limits.

2. During construction, City Representatives, i.e., QA Inspectors, Environmental Inspectors, and Specialty Environmental Monitors, will ensure that construction equipment and associated activities remain within the work zone.

3. If Contractor determines the need for extra workspace (e.g. staging areas, parking areas, spoil storage areas, material storage areas, unpaved roads, etc.) outside of the previously CEQA certificated project area (e.g. construction limits), Contractor shall not use the requested extra workspace until CEQA Lead Agency and jurisdictional agency clearances have been obtained and City Representative has approved the area for use.

D. Restrictions and Guidelines: Contractor is responsible for ensuring that Contractor and subcontractor personnel adhere to the following:

1. Construction personnel shall stay within the designated construction limits and shall not go outside these boundaries.

2. Project-related vehicles shall observe the posted speed limit on hard-surfaced roads and a 15 mile-per-hour speed limit on unpaved roads in the construction limits.

3. Off-road travel by project-related vehicles and construction equipment shall be restricted to the construction limits.

4. Contractor shall provide closed garbage containers for the disposal of all food-related trash items (e.g., wrappers, cans, bottles, food scraps). All garbage shall be removed daily from the project site. Construction personnel shall not feed or otherwise attract wildlife to the project area.

5. No pets or firearms shall be allowed in the construction limits.

6. To prevent possible resource damage from hazardous materials, such as motor oil or gasoline, construction personnel shall not service vehicles or construction equipment outside designated staging areas.

7. Any worker who inadvertently injures or kills a special-status species or finds one dead, injured, or entrapped shall immediately report the incident to the QA Inspector or Environmental Inspector. City Representative shall immediately notify Environmental Project Manager, which shall provide verbal notification to the USFWS Endangered Species Office in

Sacramento, California, and to the local CDFG warden or biologist within three working days of the incident. City will follow up with written notification to USFWS and CDFG within five working days of the incident.

E. Noxious Weed Control: To avoid or minimize the introduction or spread of noxious weeds Contractor shall implement the following measures: ***Project Engineer to include measures from CEQA document. Measures below should be deleted if not applicable.***

1. Contractor's supervisors and managers shall attend an environmental training program conducted by the City Representative that includes discussions on noxious weed identification and control.

2. Contractor's equipment shall arrive on the project site clean of soil, seeds, and plant parts.

3. Certified, weed-free, imported erosion-control materials (or rice straw in upland areas) shall be used exclusively.

4. To reduce the movement of noxious weeds into uninfested areas, Contractor shall stockpile and cover topsoil removed during excavation, which shall be subsequently used to refill excavated areas.

F. Sensitive Resource Fencing:

1. Contractor shall install, maintain, repair, and remove sensitive resource fencing to protect sensitive resources. Fencing shall be installed prior to construction activities including mobilization of any equipment or materials (including mobile offices). Final location of all sensitive resource fencing will be marked in the field (pin flagged) by the Environmental Inspector who will coordinate with the Contractor regarding final fence locations.

2. Fencing work includes Contractor furnishing and installing fencing, maintaining fencing during construction, and removal of fencing when construction is complete.

3. Environmental Inspector of Specialty Environmental Monitor will supervise the installation of sensitive resource fencing. All sensitive resource fencing will be inspected a minimum of once per week by the Environmental Inspector to ensure that the sensitive resource fencing is secure. Any problems with the integrity of the sensitive resource fencing shall be reported to the Contractor for immediate repair. Contractor shall continuously maintain fencing until all construction activities are complete.

4. Construction personnel, construction-related activities, vehicle/equipment operation, material and equipment storage, and other surface-disturbing activities are prohibited within the fenced sensitive resource areas.

5. Contractor shall remove all fencing upon completion of construction as approved by the Environmental Inspector and with the Environmental Inspector present. Specific fencing requirements include the following:

6. Fencing Requirements: ***Project Engineer to list fencing requirements; show fencing locations on project drawings; and include typical fencing details. Project team will need to show location of fencing to be installed or otherwise describe where fencing should be installed. Project team will also need to provide specification on fencing based on potential species to be encountered. Typical drawings have been created for snake fencing, silt fencing, and orange barrier/hardware cloth fencing.***

   a. Prior to the start of construction, the Contractor shall install a four-foot tall fence around any trees that are to be avoided, as shown on the construction drawings, under the direction of the City's Specialty Environmental Monitor or arborist. Contractor shall continuously maintain the fencing until all construction activities near the trees are completed.

G. Topsoil Salvage

1. Contractor shall salvage, at a minimum, the top 12 inches of soil (topsoil) during grading, stockpile it separately from remaining spoils (subsoils), and protect the topsoil from erosion by covering or watering. At the direction of the City, additional topsoil may be salvaged. ***Project Engineer, for pipeline projects, to define where topsoil is to be salvaged, i.e., trench line only or ditch plus spoil side or full ROW***

2. Salvaged topsoil shall be used for restoration and revegetation of temporarily disturbed areas by restoring the topsoil to the approximate location from where it was removed after backfilling with subsoil and before seeding.

Project Engineer: The below requirement is for projects in the San Joaquin Region only. Project team will need to provide a map or otherwise describe in text where mapped areas of Prime and Unique Farmland and Farmland of Statewide Importance occurs and topsoil salvage is required.

3. ***Contractor shall stockpile and replace topsoil in mapped areas of Prime and Unique Farmland and Farmland of Statewide Importance that would be temporarily disturbed by construction, unless other actions are required under specific agreements with individual land owners. (The City typically holds easements for work on its projects, but prior owners may have residual rights to use the rights-of-way for agricultural***

purposes. The City will work with farmers, in such instances, under the terms of these agreements.).

Project Engineer: The below requirement is for projects in the Sunol Valley Region only. Project team will need to provide a map or otherwise describe in text where agricultural area occurs and topsoil salvage is required

4. ***On agricultural lands in the Sunol Valley, Contractor shall salvage topsoil that would be temporarily disturbed by construction, stockpile it, replace it, and hydroseed the area to prevent erosion, as necessary, unless other actions are required as a result of contracts affecting use of the property or under specific agreements with individual land owners as directed by the City.***

H. Vegetation Protection

1. Pruning of the trees shall be performed after being approved by the City and in conformance the "Pruning Guidelines" adopted by the California Department of Forestry and Fire Protection***. Project Engineer: Project document may reference a local ordinance instead.***

2. Contractor shall restore and revegetate temporarily disturbed areas in accordance with Section 31 31 19. Contractor shall be responsible for monitoring requirements through the construction warranty period.

I. Stream and Wetland Protection: Contractor shall avoid or minimize impacts to streams and wetlands by implementing the following measures:

1. Contractor shall avoid direct and indirect impacts on wetland habitats and on creeks, wherever feasible.

2. Project Engineer to add/delete project specific measures.

J. Wildlife Protection: ***Project Engineer to add/delete project specific species requirements.***

1. Contractor shall cover any trenches at with appropriate materials when not in use to prevent entrapment from resulting in potential injury or mortality of wildlife, especially any special-status amphibian, reptile, or mammal species. Silt fencing shall be installed around shaft excavation pits if covering these larger excavations is not possible. ***Project Engineer to include if CEQA requirement.***

2. Specialty Environmental Monitor shall be present at each construction area during initial ground-disturbing activities and vegetation removal in suitable habitat for special-status species including during the placement of any dewatering equipment in or near ***Project Engineer to identify location(s)***. Contractor shall be responsible for providing advance notice

of these activities to the Environmental Inspector and for ensuring that these activities do not commence without the on-site presence of the Specialty Environmental Monitor. ***Project Engineer to include if CEQA requirement.***

3. Specialty Environmental Monitor shall conduct a preconstruction survey prior to the onset of work and at the beginning of each workday for California red-legged frog, San Francisco garter snake, and other special-status species. ***Project Engineer to include if CEQA requirement.***

   a. If a California red-legged frog is found, the Specialty Environmental Monitor, in coordination with the City Representative, shall contact USFWS to determine if relocating is appropriate.

   b. If a San Francisco garter snake is found, the Specialty Environmental Monitor, in coordination with the City Representative, shall immediately contact USFWS and CDFG for direction on how to proceed.

   c. If a federally listed species is in immediate danger of being injured or killed, the Environmental Inspector and Biological Monitor has the authority to halt construction activities until the species has been removed from the construction area and released into nearby suitable habitat.

4. Specialty Environmental Monitor will conduct a survey for woodrat middens, i.e., houses, at ***[Project Engineer to identify location]***, where construction activities are anticipated to occur. This survey shall be conducted 2 weeks prior to construction clearing or grading in a given location. Contractor shall be responsible for providing advance notice of these activities to the Environmental Inspector and for ensuring that these activities do not commence until the survey has been completed. ***Project Engineer to include if CEQA requirement.***

   a. If no middens are found within such areas, no further action is required.

   b. If middens are found, Contractor shall place orange barrier fencing a minimum of 5 feet away from and along the construction-side of the middens to protect them from construction activities. If this minimum distance cannot be achieved and the middens cannot be protected and avoided, a Specialty Environmental Monitor shall trap and relocate woodrats out of the construction area (using live-traps) within 30 days of the start of construction.

5. To avoid loss of active nests and potential mortality of special-status and non-special status migratory birds, Contractor shall ensure that trees and shrubs are removed or trimmed only during the nonbreeding season (generally between September 1 and February 28 for most birds). Removing woody vegetation during the nonbreeding season will ensure

that active nests are not destroyed by removal of trees supporting or adjacent to active nests. ***Project Engineer to include if CEQA requirement.***

6. If construction activity begins during the breeding season (March 1 to August 30), a preconstruction survey for nests and nesting birds shall be conducted by the Specialty Environmental Monitor within two weeks prior to initiation of construction activities and shall cover all suitable habitat within 250 feet of the construction area boundaries. If construction activities begin in different areas at different times or there are periods of more than two weeks when no work is being conducted, surveys shall be conducted by the Specialty Environmental Monitor in each area accordingly. If initiation of construction is delayed beyond the two-week timeframe, the survey will be repeated. Contractor shall be responsible for coordinating with Environmental Inspector on schedule and confirming that surveys have been completed prior to initiation of construction activities.

   a. If no active nests are detected during surveys, then no additional mitigation is required.

   b. If active nests are detected within 250 feet of the project, a determination shall be made by the City Representative as to whether noise or other construction activities would adversely affect the active nests or disrupt nesting behaviors. If it is determined that construction would not impact the nests or nesting behavior, then construction may proceed with no restrictions or further mitigation. If is it determined that construction would impact the nests or nesting behavior, then an appropriate construction buffer from the active nest will be determined in consultation with CDFG.

7. If construction activities begin prior to the breeding season (between September 1 and February 28), then construction can proceed. Construction activities in this instance shall remain in full force. A minor activity that initiates construction but does not involve the full force of construction activities shall not qualify as “pre-existing construction.” If any birds or raptors nest in the vicinity of the project under a pre-existing construction condition, then it is assumed that they are or will habituate to the construction activities. Under this scenario, the pre-construction survey shall still be conducted by the Biological Monitor or after March 1 to identify any active nests in the vicinity, and active sites shall be monitored by a Biological Monitor periodically until after the breeding season or after the young have fledged (usually late June to mid-July). If active nests are identified on or immediately adjacent to the project site, then all non-essential construction activities (e.g., equipment storage, meetings) shall be avoided in the immediate vicinity of the nest site; however, construction activities can proceed.

8. If any of the special status species are found by the City's biological monitor or construction personnel within the work area, Contractor shall cease construction activities in the immediate vicinity. Contractor shall not resume work until approved by the City. As necessary, Contractor shall redirect work activities to avoid such areas.

9. Contractor shall restore and revegetate temporarily disturbed areas in accordance with the Section 31 31 19. Contractor shall be responsible for monitoring requirements through the construction warranty period.

3.13 RECREATIONAL RESOURCES

Project Engineer to insert standard mitigation measures, if applicable

A. Contractor shall provide City with a schedule of when work will occur in or immediately adjacent to golf courses or other recreational facilities such that City can notify facility owner in advance. Contractor shall provide updated schedules to City as necessary.

3.14 AGRICULTURAL RESOURCES

Project Engineer to insert standard mitigation measures, if applicable. Measure below should be included in the selected revegetation and restoration specification.

A. Contractor shall decompact soils where agricultural uses, excepting nursery operations, will resume after construction such that compaction is the same as preconstruction condition and surrounding areas. Therefore, Contractor shall provide for a soils specialist to record percent compaction using a typical soil penetrometer before and after construction in the work area and immediately adjacent. Contractor shall provide results of compaction testing to City prior to start of final site restoration and revegetation.

3.15 HAZARDS AND HAZARDOUS MATERIALS

Project Engineer to insert standard mitigation measures, if applicable

A. Contractor shall adhere to all local, state, and federal regulations related to the use, transport, handling, and disposal of hazardous materials. See Section 01 35 43.19 and 01 41 00.

B. Contractor shall prepare a Site Health and Safety Plan for review by the City prior to the start of construction. See ***[Manual insert field]*** and part 'G' of this Article for minimum requirements of the plan.

C. Hazardous Materials Management Plan – The Contractor shall prepare and submit a Hazardous Material Management Plan to be reviewed and approved by the City before allowing construction to begin in accordance with Section 01 35 43.19. For Contractors that have a hazardous material, or a mixture containing a

hazardous material, in a quantity equal to or greater than 55 gallons, 500 pounds, or 200 cubic feet at standard pressure or temperature at any one time in the year, Contractor shall also submit plan to applicable county office to comply with Chapter 6.95 of the California Health and Safety Code. Note that many county offices provide packets with forms and instructions needed to comply with Chapter 6.95 of the California Health and Safety Code:

1. San Joaquin County Office of Emergency Services ***Project Engineer to list specific County department***

D. Hazardous Material Spill Prevention Control and Countermeasure Plan – Contractor shall prepare and submit a Hazardous Material Spill Prevention Control and Countermeasure Plan to be reviewed and approved by the City before allowing construction to begin in accordance with Section 01 35 43.19.

1. In the event of a reportable spill, the Contractor shall notify the City and applicable agencies in accordance with guidance from the California Office of Emergency Services.

Project Engineer: Following is required for projects requiring excavation where the there is potential to encounter hazardous materials in the soil based on pre-construction site assessment. If potential for contamination is not investigated before Bid & Award to confirm absence of contamination, include this requirement.

E. Hazardous Spoils Material Disposal Plan – For projects requiring excavation where the site assessment performed by the City indicates the potential to encounter hazardous materials in the soil (e.g., asbestos, lead, etc.), the Contractor shall prepare and submit a Hazardous Spoils Material Disposal Plan in accordance with Section 02 81 00 – Transportation and Disposal of Hazardous Materials to the City Representative for review and approval. At a minimum the plan shall include: ***Project Engineer to include if site assessment indicated potential to encounter hazardous materials in the soil.***

1. Disposal method and approved disposal site.

2. Written documentation showing that the disposal site will accept the waste.

Project Engineer: Following is required for projects involving demolition or renovation of existing facilities.

3. Contractor shall prepare and implement a Hazardous Materials Disposal Plan that specifies, adequate abatement practices, disposal methods, and approved disposal site(s) for hazardous building materials encountered during demolition or renovation of existing facilities, including and remove and dispose of properly any friable asbestos-containing materials, lead-containing materials, PCB-containing equipment or fluorescent lights containing mercury vapors, or other hazardous components of building

materials. This is covered under Section 01 35 43.19 – Contaminated Soil in Excavation or Section 01 35 43.13 – Building Related Hazardous Materials.

F. Asbestos Monitoring and Mitigation Plan – For tunneling projects where soil or rock containing naturally occurring asbestos has been identified, Contractor shall prepare and submit an Asbestos Monitoring and Mitigation Plan to the City Representative for review and BAAQMD approval prior to tunneling activities or handling of naturally occurring asbestos. At a minimum the plan shall include: ***Project Engineer to include if tunnel project with asbestos. Specifier: it may be appropriate to include this in Sections 01 35 43.13 or 01 35 43.19.***

1. Identified asbestos criterion

2. Monitoring that will be conducted to identify asbestos concentrations in tunnel or excavation emissions

3. Sampling and analytical methods

4. Procedures for implementing corrective actions if the asbestos criterion is exceeded.

5. Additional dust filtration to be added if the criterion is exceeded.

G. Site-Specific Contractor Health and Safety Plan – For projects requiring excavation where the site assessment performed by the City indicates the potential to encounter hazardous materials in the soil (e.g., asbestos, lead, etc.), the Contractor include all the following information in their Site-Specific Contractor Health and Safety Plan (see Section 00 73 19 for additional plan requirements):

Project Engineer to include if site assessment indicated potential to encounter hazardous materials in the soil. These requirements can be added to Section 00 73 19 where the requirements for the Site-Specific Contractor Health and Safety Plan are discussed.

1. Identification of the chemicals present,

2. Potential health and safety hazards,

3. Monitoring to be performed during site activities,

4. Soils-handling methods required to minimize the potential for exposure to harmful levels of any chemicals identified in the soil,

5. Personnel protective equipment,

6. Emergency response procedures

END OF SECTION

SECTION 01 35 43.13

BUILDING-RELATED HAZARDOUS MATERIALS

THIS GENERAL SECTION WILL NEED TO BE COORDINATED WITH A PROJECT-SPECIFIC TECHNICAL SECTION PROVIDED BY THE PROJECT TEAM. FOR SUGGESTED UPDATES TO THIS SECTION, PLEASE PROVIDE TO BOTH CALVIN HUEY AND MICHAEL K. TSANG.

PART 1 – GENERAL

1.01 SUMMARY

A. This Section includes general requirements for the following potential site conditions:

1. Working around and handling building materials that may have lead – based paints or coatings.

2. Working around low levels of paint and asbestos-containing building materials with potential to release airborne emissions.

3. Removing and disposing asbestos-containing building materials ("ACM").

4. Handling piping installation in areas posted with asbestos warning signs and around piping systems covered with asbestos-containing thermal system insulation materials.

5. Disturbing, removing or disposing of treated timbers with CCA, ACZA, creosote, pentachlorophenol, or other chemicals.

6. Conducting remediation of building surfaces that may be affected by fungal, bacterial, or mold growth.

7. Drilling, attachment to, and/or minor disturbances to friable ACM, including thermal system insulation ("TSI") and surfacing materials such as acoustical plasters, fireproofing and texcoat, as applicable.

8. Drilling, attachments to, and/or minor disturbances to non-friable or non-surfacing asbestos-containing materials such as wall and ceiling non-acoustical plasters, sheetrock, transite board, vinyl floor tiles, thin coat paints, and floor tile mastics, as applicable.

9. Handling mercury fluorescent lights or equipment such as transformers and light ballasts with potential polychlorinated biphenyls (PCBs).

10. Handling other potentially hazardous materials present such as biohazard, chemical hazard, radioactive, or atmospheric hazard.

11. Removing and disposing of PCB-containing building materials"

    a. [Manual insert field – any needed additions to the above listing, as may be identified in applicable Hazardous Materials Survey Reports, Environmental Checklists or California Environmental Quality Act (CEQA) documents]

B. Control of potentially hazardous materials and conditions at the Project site is the responsibility of the Contractor. All work in this Section shall be considered as incidental work, unless included under Section 01 20 00 – PRICE AND PAYMENT PROCEDURES for allowance for hauling, testing and disposal of hazardous materials.

C. The Contractor shall be familiar with, and shall include in their bid all associated compliance costs for the laws and regulations regarding hazards, control measures, management of hazardous materials, and characterization and disposal of hazardous waste as applicable, including but not limited to those listed in Article 1.02.

D. Hazardous and contaminated materials and hazardous waste shall be handled in accordance with the requirements of the Contract documents, as well as applicable laws and regulations in effect at the time of disturbance, transport or disposal of said hazardous materials or waste. In the event of conflict, the more stringent requirement shall apply.

1.02 REGULATORY REQUIREMENTS

A. The Contractor shall comply with all applicable laws and regulations regarding the generation, management, characterization and disposal of hazardous waste. The Contractor is solely responsible for identifying which apply. Examples of regulations that may apply include but are not limited to:

1. Resources Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq. and regulations 40 CFR Part 260 et seq.

2. California Health and Safety Code, Division 20 and regulations, and 22 CCR Section 66000 et seq.

3. For asbestos hazards: Comply with the applicable requirements of:

    a. Cal/OSHA Construction Asbestos Standard, 8 CCR Section 1529.

    b. BAAQMD Regulation 11, Rule 2 ((Hazardous Pollutants - Asbestos Demolition, Renovation and Manufacturing) and Regulation 11 Rule 14 (Hazardous Pollutants - Asbestos-Containing Serpentine).

c. Environmental Protection Agency NESHAP and AHERA regulations (40 CFR Part 763, as applicable).

d. Occupational Safety and Health Administration (inclusive of OSHA 29 CFR 1926.1101)

e. California Environmental Protection Agency (Cal/EPA).Title 22

f. Other applicable federal, state, and local governmental regulations pertaining to ACM and asbestos waste.

g. The Final Regulation Order of the California Code of Regulations Title 17, Public Health, Section 93105, on Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations

B. For lead hazards, comply with the applicable requirements of the following federal, state and local regulations:

1. Cal/OSHA Lead in Construction Standard, 8 CCR Section 1532.1, and Cal/EPA Regulation 22 CCR Section 66000

2. Federal Lead Standard for the Construction Industry, 29 Code of Federal Regulations ("CFR") part 1926.62

3. California Department of Health Services (17 CCR Sections 35001 - 35099).

4. Title 17, California Code of Regulations, Division 1, Chapter 8 Accreditation, Certification and Work Practices in Lead Related Construction.

5. Lead as a water pollutant:

6. Federal Clean Water Act ("CWA"), 40 CFR part 427.

7. California's Porter Cologne Water Quality Control Act.

8. Federal Safe Drinking Water Act ("SDWA"), 40 CFR parts 141-143.

9. Lead as a hazard to children: California's Childhood Poisoning Prevention Act, 17 CCR section 33001 et seq.

10. Lead as a hazardous waste:

a. Federal Resource Conservation and Recovery Act ("RCRA") of 1976,

b. 40 CFR part 240 et seq.

c. California's Hazardous Waste Control Law ("HWCL"), 22 CCR section 66260.1 et seq.

Project Engineer to delete this item '11' if Project doesn't involve exterior lead base paint removal within the City and County of San Francisco:

11. San Francisco Building Code ("SFBC"), Chapter 34, Section as required where there is disturbance to painted surfaces on the exterior of buildings or structures within the City and County of San Francisco.

Project Engineer to delete this item '12' if Project doesn't involve removal of hazardous paint coatings in bridges and steel complex structures

12. Society for Protective Coatings Paintings Contractors' Certification Program (SSPC/PCCP) for the QP1 and QP2 Certifications.

Project Engineer to delete items '13'and '14' if the Project doesn't involve removal of lead hazards in housing / urban development sites:

13. Lead in paint: Federal Housing and Community Development Act of 1992, 24 CFR part 38.]

14. Lead in housing and other structures:Toxic Substances Control Act ("TSCA")'s Title IV, proposed 40 CFR part 745

C. Respiratory Protection: The Contractor shall assess potential exposures to hazardous materials and conditions and comply with 29 CFR 1926.62 (f) and 8 CCR 5144. Provide a hazard analysis. Identify the appropriate respiratory protection to be used for the various tasks. Comply with all requirements associated with proper use of respirators.

D. For PCB ballast work: The Contractor shall comply with Cal/EPA Regulation 22 CCR Sections 66268.110 and 66508.

E. For Universal Waste the Contractor shall comply with Cal/EPA Regulation 22 CCR Sections 66261.50 and 66273.8 (CCR Title 22, Division 4.5, Chapter 34) Examples of universal waste: batteries, fluorescent tubes (lamps), electronic devices (cell phones, computers, televisions), cathode ray tubes (CRTs), mercury wastes (thermometers and toys), and non-empty aerosol cans.

F. For wood treated with chemical preservatives such as Chromate Copper Arsenate ("CCA") treated wood: The Contractor shall comply with the Federal Insecticide, Fungicide, Rodenticide Act ("FIFRA") and by the California Department of Pesticide Regulation ("DPR") and Department of Toxic Substances Controls ("DTSC") Regulations or for the treated wood waste as per the Health and Safety Code ("HSC") 25150.7 and 25150.

1.03 DEFINITIONS

A. Abatement: Primary work involving the removal, containment, control or treatment of hazardous materials.

B. Asbestos: A generic name given to a number of naturally occurring hydrated mineral silicates that possess a unique crystalline structure, are incombustible in air, and separate into fibers. Asbestos includes chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos, and any of these minerals that has been chemically treated and/or altered. For purposes of this standard, "asbestos" includes PACM, as defined below.

C. Asbestos-Containing Material ("ACM"): Defined by Cal OSHA 8CCR§1529 as any material which contains more than one percent (1.0 %) of asbestos by weight for the purposes of abatement, waste disposal and fiber controls specified under this Contract. Defined by BAAQMD Regulation 11, Rule 2 as any building material which contains commercial asbestos in an amount greater than 1% by weight, area, or count as determined by the methods specified in Section 11-2-603.

D. Asbestos Containing Construction Materials ("ACCM"): Defined by Cal OSHA 8CCR§341.6 as any manufactured construction material which contains more than one tenth of one percent (0.1 %) asbestos by weight.

E. Asbestos-Containing Waste Material: Defined by BAAQMD as any waste that contains or has been contaminated by commercial asbestos and is generated by a plant, source, or operation subject to the provisions of this Rule, including, but not limited to, asbestos mill tailings, control device asbestos waste, RACM demolition and renovation waste material, disposable equipment and clothing, and bags or containers that previously contained commercial asbestos.

F. Asbestos Hazard Emergency Response Act ("AHERA"): contains some but not all requirements for asbestos training, certifications, surveys, and work practices.

G. Asbestos Regulated Area: An area established where asbestos work is conducted and any adjoining area where debris and waste from such asbestos work accumulate; and a work area within which airborne concentrations of asbestos exceed, or may exceed the permissible exposure limit ("PEL").

H. Asbestos-Related Construction Work: Defined by Cal OSHA 8CCR§1529 as construction work that includes but is not limited to the following:

1. Demolition or salvage of structures where asbestos is present;

2. Removal or encapsulation of materials containing asbestos;

3. Construction, alteration, repair, maintenance, or renovation of structures, substrates, or portions thereof, that contain asbestos;

4. Installation of products containing asbestos;

5. Asbestos spill/emergency cleanup;

6. Transportation, disposal, storage, containment of and housekeeping activities involving asbestos or products containing asbestos, on the site or location where construction activities are performed;

7. Excavation that may involve exposure to asbestos as a natural constituent that is not related to asbestos mining and milling activities;

8. Erection of new electric transmission and distribution lines and equipment, and alteration, conversion and improvement of the existing transmission and distribution lines and equipment; and

9. Routine facility maintenance.

I. BAAQMD: Bay Area Air Quality Management District is a regional agency with jurisdiction over the demolition and renovation of buildings and structures that may contain asbestos, and the manufacture of materials known to contain asbestos. BAAQMD regulations must always be followed when removing asbestos or demolishing buildings. The Air District has been delegated the authority to enforce federal asbestos regulation. The Air District developed its own asbestos rule in 1976 that is more stringent than the federal rule.

J. Cumulative Renovations: A series of small (less than 30.8 m [100 ft] linear, 9.4 m2 [100 ft2] or 1 m3 [35 ft3]) renovations or removals of RACM performed during a calendar year at a single plant or facility which, taken together, would add up to a reportable amount under the provisions of BAAQMD Regulation 11, Rule 2.

K. Demolition: Defined by BAAQMD as wrecking, intentional burning, moving or dismantling of any load supporting structural member, or portion thereof, of a building, facility or ship. This includes, but is not limited to, any related cutting, disjointing, stripping or removal of structural elements.

L. Deteriorated Lead-Based Paint Hazard: painted areas with any of the following characteristics:

1. More than two square feet of deteriorated lead paint on interior components with large surfaces such as walls, ceilings, floors, and doors.

2. More than ten square feet of deteriorated lead paint on exterior components with large surfaces such as outside walls.

3. Deteriorated lead paint on more than ten percent of the total surface area of interior or exterior components with small surface areas such as windowsills, baseboards, trim, etc.

M. Generator: The City is the “Generator” as defined in Section 66260.10 of Article 2, Chapter 10, Division 4.5, Title 22 of the California Code of Regulations

("CCR") and in Title 40, Code of Federal Regulations of any hazardous waste, and it will be responsible for such material to the extent required by law.

N. Hazardous Materials Control: Incidental work procedures for control of releases of project- related hazardous materials, including containment, enclosure, wetting, controlled renovation and demolition procedures, and removal and disposal.

O. Hazardous Waste:

1. Waste material, including asbestos, loose and peeling lead-based paints, PCB ballasts, and any other material which requires management, handling, transport, treatment, storage or disposal in accordance with the requirements of the Federal Resource, Conservation and Recovery Act ("RCRA") and associated regulation 42 U.S.C. 6901 et seq. and 40 CFR Part 260 et seq.) or the California Hazardous Waste Control Law and associated regulations (Health and Safety Code 25000 et seq. and 22 CCR 66260 et seq.).

2. References to hazardous material or contaminated material incorporate definitions of hazardous pollutants, hazardous contaminants, hazardous material, hazardous substance, hazardous waste, toxic pollutants and toxic substance applicable in accordance with Federal, State, regional and local statutes, laws, regulations and policies.

P. Lead: Both the Federal Occupational Safety and Health Administration ("OSHA") (29CFR§1926.62) and the California OSHA (8CCR§1532.1) Lead in Construction Standards defines *lead* as the following: metallic lead, all inorganic lead compounds, and organic lead soaps. Excluded from this definition are all other organic lead compounds.

Q. Lead Action Level: 30 micrograms per cubic meter calculated as an eight-hour time weighted average (8 hr TWA).

R. Lead-Containing Material: Any material, coating, substrate or product, which contains lead in accordance with OSHA's definition.

S. Lead-Contaminated Soil: Lead-Contaminated Soil is defined by Title 17, CCR Division 1, Chapter 8, Section 35036 as bare soil that contains an amount of lead equal to, or in excess of, four hundred parts per million (400 ppm) in children's play areas and one thousand parts per million (1,000 ppm) in all other areas.

T. Lead-Based Paint ("LBP"): LBP is defined by Title 17, CCR Division 1, Chapter 8, Section 35037 as any paint, varnish, shellac, or other surface coating that contains lead equal to or greater than 1.0 mg/cm^2 as measured by X-ray Fluorescence ("XRF") or laboratory analysis, or 0.5 percent by weight (5,000 µg/g, 5,000 ppm, or 5,000 mg/kg) as measured by laboratory analysis.

U. Lead-Based Paint Activities: EPA's Title IV of the Toxic Substances Control Act defines Lead-Based Paint Activities as the following, among others:

V. In any public building constructed before 1978, commercial building, bridge, or other structure or superstructure:

1. Identification of lead-based paint and materials containing lead-based paint

2. Deleading

3. Removal of lead from bridges

4. Demolition.

W. Lead-Based Paint Debris: Any component, fixture, or portion of a building coated wholly or partly with LBP. LBP debris can also be any solid material coated wholly or partly with LBP resulting from a demolition. Examples among many others include ceilings, crown molding, walls, chair rails, doors, door trim, floors, fireplaces, shelves, radiators and other heating units.

X. Lead-Based Paint Hazard: A condition in which exposure to lead from lead-contaminated dust, lead-contaminated soil, or deteriorated lead-based paint would have an adverse effect on human health (as established by the EPA Administrator under Title IV of the Toxic Substances Control Act). Lead-Based paint hazards include for example, deteriorated lead-based paint, leaded dust levels above applicable standards, and bare leaded soil above applicable standards.

In Title 17, California Code of Regulations ("CCR"), Division 1, Chapter 8, Section 35037, the California Department of Public Health ("CDPH") adds to this definition by stating "disturbing lead-based paint or presumed lead-based paint without containment, or any other nuisance which may result in persistent and quantifiable lead exposure."

Y. Lead-Based Paint Hazard Abatement: Any set of measures designed to permanently eliminate lead-based paint hazards according to standards established by the appropriate federal agencies. Abatement measures include the following activities:

1. Removal of lead-based paint and lead-contaminated dust

2. Permanent containment or encapsulation of lead-based paint

3. Replacement of lead-painted surfaces or fixtures

4. Removal or covering of lead-contaminated soil.

Z. Lead-Based Paint Hazard Control: Activities to control and eliminate lead-based paint hazards, including interim controls, abatement, and complete abatement.

AA. Lead-Contaminated Dust: Defined by the California Department of Public Health ("CDPH"), Title 17, CCR Division 1, Chapter 8, Article 1, Section 35035 as the following: dust that contains an amount of lead equal to or in excess of the following concentrations: 40 $\mu g/ft^2$ for interior floor surfaces, 250 $\mu g/ft^2$ for interior horizontal surfaces, and 400 $\mu g/ft^2$ for exterior floor and exterior horizontal surfaces. The most stringent criteria set forth by CDPH and/or the EPA will apply to the work on this project.

BB. Lead Permissible Exposure Limit ("PEL"): 50 micrograms per cubic meter calculated as an eight-hour time-weighted average (8 hr TWA).

CC. Lead Regulated Area: California OSHA (8CCR§1532.1) Lead in Construction Standard states that employers shall establish regulated areas, where feasible, for work areas where employees are exposed to lead at or above the PEL or performing the tasks described in Paragraph Y below.

DD. Lead-Related Construction Work: Defined by Cal OSHA 8CCR§1532.1 as all construction work where an employee may be occupationally exposed to lead. All construction work excluded from coverage in the general industry standard for lead by 8CCR§5198(a)(2) is covered by this standard. Construction work is defined as work for construction, alteration and/or repair, including painting and decorating. It includes but is not limited to the following:

1. Demolition or salvage of structures where lead or materials containing lead are present;

2. Removal or encapsulation of materials containing lead;

3. New construction, alteration, repair, or renovation of structures, substrates, or portions thereof, that contain lead, or materials containing lead;

4. Installation of products containing lead;

5. Lead contamination/emergency cleanup;

6. Transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are performed, and

7. Maintenance operations associated with the construction activities described in this subsection.

EE. National Emission Standards for Hazardous Air Pollutants ("NESHAP") regulates air emissions of hazardous pollutants including potential air emissions caused from work with asbestos.

FF. Presumed Asbestos Containing Material ("PACM") is thermal system insulation and surfacing material found in buildings constructed no later than 1980. PACM can be sampled to confirm whether it is ACM or not.

GG. Regulated-Asbestos Containing Material ("RACM"): Defined by BAAQMD per Regulation 11, Rule 2, 11-2-233 as Friable asbestos-containing material, as defined in Section 11-2-222 or Category I nonfriable asbestos-containing material that has or will become friable, or that has been subjected to sanding, drilling, grinding, cutting, or abrading, or, Category II nonfriable asbestos-containing material that may become or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation.

HH. Renovation: Defined by BAAQMD as an operation other than demolition in which RACM is removed or stripped from any element of a building, structure, plant, ship, installation or portion thereof.

II. Society of Protective Coatings Certification: (SPCC QP-1 and QP- 2 Certifications) Basic program which assesses a contractor's competence to perform industrial (e.g. steel) surface preparation and coating application. The Painting Contractor Certification Program ("PCCP") QP-1 and QP-2 certification assesses a painting Contractor's capability to manage hazardous paint removal when performed in conjunction with surface preparation and coating application.

JJ. Transite Material: Non-friable cementitious asbestos-containing material. Asbestos work procedures shall be followed for installation, repair, maintenance, or nondestructive removal of asbestos cement pipe used outside of buildings, if the work operations show employee exposures to asbestos in excess of 0.1 fibers per cubic centimeter of air (f/cc) as an 8-hour time-weighted average and if the employees and supervisors involved in the work operations are not trained and certified by an asbestos cement pipe training program.

KK. Treated Wood: Wood treated with chemical preservatives such as creosote, pentachlorophenol, copper azole ("CA-B") copper boron azole ("CBA"), chromated copper arsenate ("CCA"), ammoniacal copper zinc arsenate ("ACZA"), copper naphtenate, and alkaline copper quaternary. Treated wood includes material registered pursuant to the Federal Insecticide, Fungicide, Rodenticide Act ("FIFRA") and by the California Department of Pesticide Regulation ("DPR").

LL. Treated Wood Waste ("TWW"): Timber or other wood treated with chemical coatings that require the future disposal of the TTW to be regulated under the Health and Safety Code and the Department of Toxic Substances Controls ("DTSC") Regulations or the Alternative Management Standards ("AMS") as per HSC 25150.7 is a RCRA (Federal Resource Conservation and Recovery Act) hazardous waste.

1.04 SUBMITALS

A. Regardless of the expected quantity of hazardous materials to be encountered and removed for disposal, the Contractor shall prepare a Site-Specific Hazardous Materials Management Plan ("HMMP") in accordance with Section 01 33 00 – SUBMITTAL PROCEDURES. The Contractor shall submit the site specific Hazardous Materials Management Plan within 10 consecutive calendar days after the Notice to Proceed and prior to any demolition /renovation activity. No hazardous materials removal work will start without the City Representative's prior approval of the HMMP.

B. Contractor shall provide SFPUC a copy of any negative exposure assessment(s) conducted including any conducted as required in Article 1.06.L of this Section.

C. Upon receipt of Notice to Proceed, the Contractor shall provide proof of valid training records and certifications to the City Representative. Depending on the nature of the work these may include:

1. Workers HAZWOPER Training Records including refreshers;

2. Workers Medical Surveillance, respirator clearance, and fit-testing records;

3. Workers AHERA training records;

4. Workers asbestos certifications

D. The Contractor shall submit to the City Representative a copy of its Health and Safety Plan ("HASP") that meets regulatory requirements for the work being performed. If hazardous waste or contaminated soils are encountered the HASP shall meet the requirements of 8 CCR 5192. The contractor will amend the HASP as required to cover all site work and regulatory requirements and provide the amendments to the City Representative. This HASP may be submitted as an appendix to the HMMP, if desired.

E. The Contractor shall submit the following waste disposal records to the City Representative:

1. Transporter's current Class I Certificate of Compliance from the California Highway Patrol and Hazardous Substance Removal Certification, as warranted.

2. Bill(s) of Lading, as warranted.

3. Hazardous Waste Manifest(s), as warranted.

4. Waste Disposal Spreadsheet, as warranted

F. The contractor shall provide a list of hazardous materials brought on site including their quantities, storage locations, and spill control measures. This notification can be in the form of a copy of the Hazardous Materials Business Plan.

G. The contractor shall submit the following Asbestos work records as required:

1. BAAQMD-issued Approval Letter for Asbestos for Demolition, "*[Job Number].*" For all Demolition of buildings and structures, regardless of whether asbestos is present or not, Contractor shall submit a copy of the BAAQMD-issued Approval Letter for Asbestos for Demolition, "*[Job Number]*" to the City Representative prior to the start of Demolition. To obtain this letter, Contractor shall submit an Asbestos Demolition Notification to the BAAQMD through their web-based Online Asbestos Notification System (http://learn.baaqmd.gov/course/view.php?id=4#section-5) at least 10 business days prior to the start of any demolition.

Keep the entire paragraph 1.04G.1 above if project involves Demolition of buildings or structures regardless of whether asbestos is present or not.

2. BAAQMD-issued Approval Letter for Asbestos for Renovation, "*[Job Number].*" For any single Renovation involving the removal of 100 sq. ft. or more, 100 linear ft. or more, or 35 cubic feet or more of asbestos or Cumulative Renovations equaling these metrics, Contractor shall submit a copy of the BAAQMD-issued Approval Letter for Asbestos for Renovation, "*[Job Number]*" to the City Representative prior to the start of Renovation activities. To obtain this letter, Contractor shall submit an Asbestos Renovation (Removal) Notification to the BAAQMD through their web-based Online Asbestos Notification System (http://learn.baaqmd.gov/course/view.php?id=4#section-5) at least 10 business days prior to the start of any renovation.

Delete the entire paragraph 1.04G.2 above if removal of asbestos is less than 100 sq. ft. and less than 100 linear feet and less than 35 cubic feet for any single renovation or cumulative renovations on a project.

3. ***[Manual insert field]***

1.05 PROJECT REQUIREMENTS

A. The Contractor is responsible for the general supervisory authority over all hazardous materials activities, both incidental and primary, for the demolition, excavation and construction work of this Contract. The Contractor shall coordinate the activities and trades required to perform the Work of this Contract that may have the potential to directly or indirectly impact hazardous materials.

Work in particular that may typically impact hazardous materials includes, as applicable and is not limited to:

1. Demolition.

2. Disturbance to any paints or coatings.

3. Torch cutting.

4. Welding.

5. Excavation.

6. Dewatering.

7. Shoring and Underpinning Work.

B. The Contractor shall not create any condition which endangers the safety of City employees and its representatives, facility staff and the general public. If the City Representative observes such condition, then the City Representative has the authority to stop work until the Contractor corrects the condition.

C. The Contractor is responsible for monitoring its employees and Sub-Contractors' employees for exposure to hazardous materials, either used in construction or otherwise uncovered or intrinsically present at the Site.

D. The Contractor shall provide controls to minimize the migration of hazardous and contaminated materials.

E. Contractor shall immediately notify the City representative in the event that removal of asbestos pipe insulation, treated wood, structural members containing hazardous coatings, or other building materials identified as hazardous will require torching, cutting and/or welding. The Contractor shall not remove hazardous materials unless its personnel are properly trained and certified for the handling of those particular hazardous materials, i.e., workers trained and certified for class I Asbestos Work in accordance with Title 8 CCR Section 1529.

F. The Contractor shall not mix hazardous and non-hazardous materials requiring disposal as hazardous or contaminated waste.

G. The Contractor shall assume, and the City will not indemnify against, liability resulting from the activities or duties which are the Contractor's responsibility under the terms of this contract, including but not limited to, liability arising from the arrangement of transportation of any hazardous material or excavated material, whether on or off-site.

H. Packing, labeling, transporting, and disposing of hazardous waste shall comply with Cal/EPA regulations under 22 CCR 66000, including providing and completing the Uniform Hazardous Waste Manifest Form.

I. The Contractor shall take the necessary precautions during demolition to prevent the release of lead into the air and surrounding environment in the form of dust, fumes or mists from lead-containing building materials. Contractor shall comply with Cal/OSHA construction Lead Standards, Title 8 CCR 1532.1.

J. The Contractor shall not damage or disturb thermal system insulation containing asbestos, nor create asbestos airborne emissions when working in areas posted with asbestos signs and/or when installing new points of connections on existing utility piping systems.

K. Where thermal system insulation containing asbestos has been removed by others, the Contractor shall be required to comply with Class IV asbestos work as per Cal/OSHA Construction Asbestos Standards, Title 8, CCR 1529 whenever work is required in areas posted with asbestos signs or in other similarly regulated areas.

L. The Contract Documents may restrict access to crawl spaces and plenums where known asbestos-containing thermal system insulation or damaged, friable surfacing materials exist. Access by non-abatement trades to these restricted areas will require the use of respiratory protection, full coveralls and decontamination procedures unless a negative exposure assessment is submitted to show that lower standards of protection are acceptable.

1.06 QUALIFICATIONS

A. Site Safety Representative ("SSR"): In accordance with the requirements specific to this Section listed below and with those of Section 00 73 19 – HEALTH AND SAFETY REQUIREMENTS. The Contractor shall assign a qualified person who shall report directly to the Contractor's Superintendent, and who possesses the necessary training to be knowledgeable in the identification, control, and management of the hazardous materials and conditions on-site. The SSR is responsible for the following:

1. Enforcing safe work and hygiene practices in compliance with the Site-Specific Hazardous Materials Management Plan ("HMMP") discussed further in Article 1.04.A.

2. Advising subcontractors, vendors, and visitors to the site of potential hazards and minimum general requirements of the HMMP.

3. Coordinating subcontractor's work regarding hazardous material procedures and controls.

4. Establishing and maintaining restricted work areas.

5. Requiring proper use of personal protective equipment.

6. Communicating approved modified safety requirements to site personnel as well as visitors to the site.

7. Notifying and coordinating with the City Representative for immediate assessment and remediation work for unforeseen hazardous materials and/or conditions discovered throughout the duration of this project.

8. Notifying and coordinating signing of waste manifests with the City in a timely manner.

9. Ensuring Contractor's personnel have proper training to perform the work.

B. Hazardous Materials Handlers: Only qualified persons shall engage in hazardous material-related work. Contractor and subcontractor personnel, who come into contact with, are exposed to, disturb, operate equipment or otherwise handle hazardous or contaminated material, or debris shall have appropriate training, personal and medical monitoring, and shall be certified to wear appropriate personal protective equipment as required by the applicable laws and regulations. Special qualifications which may be required depending on the Contractor's means and methods include, but are not limited to, the following:

1. Asbestos-Related Construction Work Involving Asbestos-Containing Materials:

   a. Valid asbestos handling license issued by the California Contractors State License Board ("CSLB") and a valid current Certificate of Registration for Asbestos-Related Work as issued by the California Department of Industrial Relations – Division of Occupational Safety and Health ("Cal/OSHA").

   b. Work shall be completed under the on-site supervision of a Competent Person as defined Cal/OSHA under 8 CCR 1529.

   c. All abatement workers shall have AHERA training with current annual 8-hour refresher training, annual medical exams for the use of respiratory protection, and a fit test of appropriate respirators every 6 months.

2. Lead-Related Construction Work: All affected workers shall have lead training, annual medical examinations and approval for the use of respiratory protection, and fit testing of respirators complying with the California Occupational Safety and Health Administration (Cal/OSHA)'s Lead Standard for the Construction Industry, regulation 8 CCR 1532.1 when disturbing lead paints and lead construction hazards including, but not limited to:

   a. Demolishing or salvaging structural items where lead or material containing lead is present.

b. Removing or encapsulating materials containing lead.

c. Constructing, altering, repairing or renovating structures, substrates, or portions thereof, that contain lead or materials containing lead.

d. Scraping paint off windows, trim, etc. prior to repainting and the work is done as part of preparing the surface for repainting.

e. Installing products containing lead.

f. Clean up of lead contamination.

g. Transporting, disposing, storing, or containing lead-based paint debris or lead-containing materials, as both defined in Article 1.03, on the site or other locations where construction and renovation activities are performed.

The Contractor is to manage, and include in its bid, the costs of managing any of the above activities as Cal/OSHA Lead Trigger Tasks per 8 CCR 1532.1 unless or until the Contractor provides an Exposure Assessment that determines otherwise.

3. Lead Abatement Work: Only qualified persons with California Department of Public Health ("CDPH")-approved Lead Workers training, annual medical examinations and approval for the use of respiratory protection, and semi-annual fit testing of respirators under the direct supervision of a CDPH approved Lead Abatement Supervisor shall engage in work defined under Cal/OSHA regulation 8 CCR 1532.1 affecting lead-based paints and lead construction hazards, including but not limited to:

a. Working in an environment where lead exposures may exceed 30 micrograms/m3 in a residential or public building.

b. Abating lead-based paints including, but not limited to, abatement of loose and peeling lead-based paints, demolition and disposal of concrete-encased primed structural steel, and stripping of lead coatings from structural steel prior to torching or welding.

4. PCBs-Containing Ballast-Related Work: Removal of non-leaking Polychlorinated Biphenyls ("PCBs")-containing ballasts may be completed by workers with PCBs hazard awareness training as verified by the Contractor. Removal of leaking or damaged PCBs-containing ballasts from lighting fixtures shall be performed only by trained workers, wearing protective gloves and following safety procedures as outlined in the HMMP. PCB waste shall be handled in accordance with the U.S. Environmental Protection Agency's Standards 40 CFR 761.60 and 761.65.

5. Transformer Related Work: aside from any other requirements from the regulators and from any other applicable Section of this specification, any Contractor's personnel conducting this type of work must have PCBs hazard awareness training as verified by the Contractor's SSR.

6. Mercury-Containing-Lamp-Related Work: May be completed by workers with mercury hazard awareness training as verified by the SSR.

7. Other Hazardous Materials-Related Work: May be completed by workers with specific hazard awareness training of the material in question as verified by the Contractor's SSR.

8. Contaminated Soils-Related Work including Underground Storage Tanks and CCA treated Wood: workers shall have current 40-hour HAZWOPER training and 8-hour annual refresher training per OSHA Regulation 29 CFR 1910.120 (8 CCR 5192 in California) and shall comply with other health and safety requirements as approved in a Site-Specific Hazardous Materials Management Plan.

9. Biohazard Work: Work areas contaminated with fecal matter and human excretions, along with needles and syringes and other materials potentially contaminated with infectious blood borne pathogens or other biohazards shall comply with the health and safety requirements as approved in a Site-Specific Hazardous Materials Management Plan.

10. Mold and Fungi Remediation Work: May be completed by workers with mold hazard awareness training as verified by the Contractor.

11. Waste Transporters for hazardous and asbestos waste shall be registered for transportation of hazardous waste. The Contractor shall ensure that transporters have valid driver's license and vehicle registration, valid insurance meeting regulatory requirements, and licensing in compliance with all applicable California State and Local vehicle regulations. A current Class 1 Certificate of Compliance from the California Highway Patrol shall be affixed to each vehicle.

PART 2 – PRODUCTS

2.01 HAZARDOUS MATERIALS USED IN THE WORK

A. General: The Contractor shall minimize the use of hazardous materials in performing the work. Where materials which contain hazardous substances or mixtures are used to perform the work, then usage of those materials shall be in strict accordance with:

1. Cal/OSHA's safety requirements

2. The manufacturer's warnings and application instructions listed on the Safety Data Sheet ("SDS") provided by the product manufacturer and

3. The instructions on the product container label.

B. The Contractor is responsible for coordinating the exchange of SDS or other hazard communication information between the City Representative, its employees and subcontractors at the site as per federal, state and local regulations.

C. The Contractor shall notify the City Representative when a specific product or equipment, or their intended usage, may be hazardous prior to ordering the product or equipment or prior to the product or equipment being incorporated in the work. Known carcinogenic materials in any form or application shall not be used in the construction of this project.

D. Should hazardous substances be used, the Contractor shall provide the City Representative with the product information, and submit written notification to the City Representative of:

1. Area or areas where the hazardous substances are to be stored and to be used.

2. The Contractor's preventative measures, means, and facilities to prevent spillage and contamination of soil, water and atmosphere by the discharge of noxious substance.

E. The City is not responsible for any such material brought to the site by the Contractor, subcontractor, suppliers, or anyone else for whom the Contractor is responsible.

F. Hazardous Materials Certificate of Registration: The Contractor shall obtain, pay, and keep current a hazardous materials certificate of registration and implement the Hazardous Materials Management Plan submitted with the registration application, as per Articles 21, 21A, and 22 of the San Francisco Public Health Code and/or 19 CCR 2729. Contact the SFDPH at (415) 252-3900 or local HMUPA outside San Francisco to obtain a Hazardous Materials Certificate of Registration. The Hazardous Materials Certificate of Registration includes but is not limited to:

1. A chemical inventory

2. An emergency response plan

3. A training program for employees in safety procedures in the event of a release or a threatened release of hazardous materials.

4. A site map showing where the hazardous materials are located

G. The Contractor shall obtain, pay for, and keep current a Flammable/combustible material storage permit from the local authority having jurisdiction.

H. The Contractor shall not use any building materials that contain asbestos.

I. The Contractor shall not use any building materials that contain lead-based paint ("LBP").

J. Should the City tests of Contractor furnished building material identify a concentration above the maximum allowable criteria for asbestos or lead, the Contractor shall be liable for all damages and cost incurred by the City, including but not limited to the cost of the removal, abatement, and replacement of the building material.

PART 3 – EXECUTION

3.01 HAZARDOUS MATERIALS MANAGEMENT

A. The Contractor is alerted to the possibility that hazardous waste and/or contaminated material may be discovered during the course of this Contract. In the event that such hazardous / contaminated material is discovered, the Contractor shall immediately notify the City Representative both verbally and in writing. Upon receipt of such notification, the City, at its sole option, may either (a) perform the remediation / abatement work using its own forces or using an outside contractor specializing in abatement work or, (b) direct the Contractor to perform all or any part of the remediation / abatement and hazardous materials removal work. The Contractor shall not resume any work other than such remediation / abatement in the contaminated area until clearance is declared by the City Representative. The City will not compensate the Contractor for delays and cleanup costs incurred resulting from Contractor's failure to notify the City Representative immediately in the event of a hazardous materials release or spill.

B. If the City Representative directs the Contractor to perform the remediation / abatement and removal of the hazardous materials, the City Representative will do so by change order. The Contractor must promptly provide a properly licensed and insured subcontractor (with CSLB hazardous substance removal certification) to perform abatement work. Refer to Section 00 73 16 – INSURANCE REQUIREMENTS for a description of the Contractor's required insurance.

C. In the event that hazardous / contaminated material is discovered, then all work in the affected area will stop pending further direction from the City Representative. The City Representative shall determine whether the abatement and removal process requires suspension of all, none or any part of the work under this Contract.

D. If during work under this Contract, materials are encountered that may reasonably be believed to be hazardous, the Contractor shall promptly notify the City to verify the presence of differing site conditions (if or as applicable) and follow the requirements of Article 3.04 of "General Conditions" Section 00 72 00.

E. Even though hazardous building materials may have been identified prior to the commencement of the Work of this Contract, and were possibly removed and

disposed by others, the Contractor is alerted that residual hazardous materials may be encountered and that low levels of lead-base paint materials may remain in the building. The Contractor shall take the necessary precautions to prevent the release of lead in the form of dust, fumes or mists from lead-containing building materials into the air and into the surrounding environments during the Work of this Contract. Contractor shall be aware of the requirements to comply with Cal/OSHA construction Lead Standards, Title 8 CCR 1532.1.

F. In the event that hazardous materials are disturbed, or an uncontrolled asbestos or lead based paint release occurs, Contractor shall notify the City Representative immediately. The City retains the right to clean up the spill or to complete the removal of hazardous materials with other firms. The Contractor shall not be allowed to resume work in the contaminated area until clearance is declared by the City Representative. The City will not compensate delays and cleanup costs resulting from the Contractor's failure to notify the City Representative immediately in the event of a hazardous materials release or spill.

G. Contractor shall review hazardous materials reports and information listed either directly below in Article H below, or in Section 00 31 00 and ensure the information is available to all subcontractors and trades. If during prosecution of the work of this Contract, materials are encountered that may reasonably be believed to be hazardous, the Contractor shall promptly notify the City to verify the presence of differing site conditions and follow the requirements of Article 3.04 of "General Conditions" Section 00 72 00.

H. The City's environmental consultant has surveyed the facility for the presence of various hazardous materials. Materials investigated may include asbestos, lead, PCB ballasts, mercury containing lamps, contaminated soils, serpentine soils, underground storage tanks, and/or other hazardous materials. The survey findings are documented in the following:

1. ***[Manual insert field – Project Engineer to insert the required listing, and/or provide a cross reference to Section 00 31 00.***

3.02 WASTE DISPOSAL PROCEDURES

A. WASTE PROFILING AND SEGREGATION

1. The Contractor shall be responsible for characterizing and profiling waste to ensure proper handling and disposal.

2. The Contractor shall provide the City Representative with the following documentation and information:

a. Name, address and phone number of landfill, type of landfill, volume/weight of soils/building materials transported, date of transport, original location of excavated soil, and other requested information.

b. A copy of each bill of lading, certified weight ticket and other indication of the weight of the shipment, which has been received at the disposal facility to the City Representative so payment per bid item can be made, based on weight of the shipment.

c. Any other pertinent information.

d. All contaminated excavated material and unrestricted material shall be hauled off the site using a bill of lading approved by the City, to an approved treatment/disposal facility, in accordance with all applicable Federal, State and local regulations.

e. For all contaminated material and unrestricted material, the Contractor shall prepare a bill of lading for each shipment of material from the site. The bill of lading shall describe the contents of each truck carrying materials to the waste disposal site, including the address of the ultimate disposal site, the weight or yardage of the waste materials (as applicable), and an emergency phone number. The hauler shall sign and date the bill of lading indicating that he/she has accepted the load described in the manifest on that particular day. The City will sign the bill of lading and keep the appropriate number of copies and give the remaining copies to the hauler. Copies of bills of lading accepted by the treatment/disposal sites shall be provided to the City Representative.

3. Note: Some Class II landfills may have an age requirement as part of its acceptance, under their operations permit. The Contractor shall fill out a separate waste profile with the landfill owner or operator for such materials.

B. HAZARDOUS WASTE (CLASS I) DISPOSAL

1. The Contractor shall furnish all labor, materials, equipment, and incidentals required to transport those materials identified as hazardous waste for the purpose of disposal.

2. The Contractor shall comply with all applicable regulatory requirements listed as well as other applicable federal, state, or local laws, codes and ordinances, which govern or regulate transportation of wastes (including but not limited to DOT-HM 181 as per 49 CFR 172).

3. Packing, labeling, transporting, and disposing of hazardous waste shall comply with regulations under 22 CCR, including providing and completing the Uniform Hazardous Waste Manifest Form.

4. Follow applicable regulations under 40 CFR Part 263, and 22 CCR Section 66263, “Standards Applicable to Transporters of Hazardous Waste,” including licensing, manifest system, record keeping, and discharges.

5. All material classified as hazardous waste (Federal Class I RCRA and California Class II non-RCRA wastes) shall be hauled off using a licensed hazardous waste transporter and the Uniform Hazardous Waste Manifest form.

6. The Contractor shall provide and prepare the waste manifests profiles for each shipment of hazardous wastes from the site. The Contractor is hereby notified that hazardous waste manifest and/or waste profiling and/or landfill service agreements have to be prepared and have to be approved by the landfill in advance of the off-haul. The Contractor shall consult with the City Representative for SFPUC requirements in filling out the forms.

7. Preparation and handling of waste manifests

   a. Prepare the waste manifests and landfill profiles for each shipment of hazardous wastes from the site. Hazardous waste manifest and/or waste profiling and/or landfill service agreements shall be approved by the landfill owner or operator in advance of the off-haul. Consult with the City Representative for local requirements in filling out the forms.

      1) The manifest shall describe the contents of each truck carrying materials to the waste disposal site, including the weight of the waste materials. Weight, not volume, shall be used to measure waste quantities.

      2) The City Representative will provide a hazardous waste generator identification number for use on the manifest.

      3) The Contractor shall provide the State Transporter Identification ("ID") and phone numbers. The licensed transporter shall also sign and date the manifest indicating that he/she has accepted the load described in the manifest on that particular day.

      4) Only a City employee (and not the Contractor) shall sign the manifest for the "generator" of the waste.

   b. Notify the City Representative 72 hours prior to off-haul of all excavated material. Off-haul shall occur between the hours of 8:00 a.m. and 4:30 p.m. Monday through Friday (excluding City holidays). If the manifest and other forms above are to be signed by the City Representative during periods other than the hours stipulated above, the Contractor should give an additional 72-hour advance notice to the City Representative.

   c. The City Representative will sign and keep the Generator's copy (yellow) and the DTSC copy (blue) of the manifest and give the remaining copies to the licensed transporter.

d. The licensed transporter shall carry the hazardous waste manifest with each truckload.

e. Within 2 days of its return, provide the City Representative with the completed waste manifest. The completed waste manifest shall be certified by the receiver of the waste shipment, confirming that the shipment was received at the waste treatment or disposal facility designated in the Contractor's bid, and certifying the weight of the shipment.

f. Should any waste manifest not be returned within 35 days of shipment, Contractor shall initiate follow-up, and shall document such follow-up effort in writing with an Exception Report in accordance with 40 CFR 262.42 and/or 22 CCR 66262.42, and shall provide a copy to the City Representative.

8. Mandatory City Information for the Manifest

a. The Generator's US EPA ID Number for this Project is # [Perfectus insert field: Project Engineer to provide this number]

b. Emergency response Phone: # ***[Perfectus insert field: Project Engineer to List PM''s phone #]***

c. Generator's Name and Mailing Address:

Manual Insert field: This is the office that files all the manifests generated from Public Works projects. Please review accordingly if PUC has a different filing protocol. Please replace the mailing address as you see fit:

1) ***City and County of San Francisco***
Department of Public Health/BEHM
49 South Van Ness Ave., Suite 600
San Francisco, CA. 94103
Generator's Site Address

Perfectus insert field; Project Engineer to insert the physical address of the project

2) The following information is mandatory.

City and County of San Francisco
City Facility/Site generation location
Project Name
Project#
Project Manager:
Project Manager Phone Number
Profile #

d. Manifest Item B: The State Generators ID – Board of Equalization ("BOE") Number for this Project is ***[Manual insert field]***.

e. Manifest Item J: If applicable, include the following statement for soil disposal in Item J:

"The City applies for an exemption from the BOE Land Disposal Generator fees as per H&SC 25174.7, 25174.1, 25205.5 and 25345. The soils were excavated from beneath a public street."

C. NON-HAZARDOUS WASTE (CLASS II OR LESSER) DISPOSAL

1. The Contractor shall furnish all labor, materials, equipment, and incidentals required to transport those materials identified as non-hazardous waste for the purpose of disposal.

2. The contractor shall prepare and submit waste characterization and profiling information documenting the non-hazardous nature of this category of waste (see submittals).

3. By the end of the workday, the Contractor shall provide and prepare for the City Representative, bills of lading for each vehicle, for all excavated material loads classified as non-hazardous waste (California Class II or lesser), for the purpose of off-site transportation and disposal purposes. The bill of lading shall be designed to contain the following information:

   a. Name, address and phone number of the transport company

   b. Name of the driver, a dated signature from the driver, vehicle license number, trip number.

   c. Weight as recorded at the landfill of waste excavated material.

   d. Date of transport.

   e. Original location of the excavated material (street location and cross streets).

   f. Name, address and phone number of the receiving facility i.e., disposal facility. A dated signature from the receiving facility.

   g. Name, address and phone number of the generator, along with the Contract No. and Project name.

   h. A copy of each bill of lading and a certified weight ticket is an indication of the weight of the shipment, which has been received at the disposal facility. The Contractor shall furnish such information to the City Representative so payment can be made as per specification.

   i. The transporter shall sign and date the bill of lading indicating that they accepted the load described in the bill of lading on that particular day for that particular trip.

D. UNIVERSAL WASTE DISPOSAL

1. The following universal wastes are subject to specific disposal procedures under 22 CCR 66273.10 through 66273.21:

   a. Batteries, as described in section 66273.2, subsection (a);

   b. Electronic devices, as described in section 66273.3, subsection (a);

   c. Mercury-containing equipment, as described in section 66273.4, subsection (a);

   d. Lamps, as described in section 66273.5, subsection (a) (including, but not limited to, M003 wastes);

   e. Cathode ray tubes, as described in section 66273.6, subsection (a);

   f. Cathode ray tube glass, as described in section 66273.7, subsection (a); and

   g. Aerosol cans, as specified in Health and Safety Code section 25201.16.

2. Universal Wastes shall be segregated and shipped for disposal following DOT shipping requirements in 49 CFR 171 through 180.

3. Universal Wastes can be shipped using a bill of lading to a Universal Waste Handler licensed under the requirements of 22 CCR 66273.

E. ASBESTOS WASTE DISPOSAL

1. A waste that is friable and contains asbestos over 1 percent is regulated as a California (Non-RCRA) hazardous waste under 22 CCR 66261.24. The Contractor shall characterize and profile asbestos-containing waste to determine its correct waste disposal classification.

2. The following requirements apply to transportation and disposal of asbestos hazardous waste:

   a. Packaging in sealed, leak-tight, non-returnable containers from which the fibers cannot escape following 40 CFR 61.150 or, in order to prevent breakage of larger items, in bulk containers lined with plastic sheeting and covered it with a tarp following 22 CCR 66263.23.

   b. Labeling of the asbestos hazardous wastes will follow 29 C.F.R. 1910.1001, 29 CFR 1926.1101, and 8 CCR 5208.

   c. Asbestos hazardous wastes shall be shipped using a registered hazardous waste hauler to landfills permitted to accept asbestos wastes.

d. Contractor shall prepare and submit to the City Representative a Uniform Hazardous Waste Manifest Form for asbestos hazardous waste shipments.

END OF SECTION

SECTION 01 35 43.19

CONTAMINATED SOILS IN EXCAVATION

THIS SECTION PERHAPS SHOULD HAVE BEEN STARTED AT 35% DESIGN, NOT AS LATE AS THE TIME PERFECTUS IS RUN FOR A CONTRACT. YOUR CONTRACT PERHAPS ALREADY HAS AN EQUIVALENT SECTION 02 XX XX, IN WHICH CASE THIS SECTION MAY NOT BE NEEDED. FOR SUGGESTED UPDATES TO THIS SECTION, PLEASE PROVIDE TO BOTH CALVIN HUEY AND MICHAEL K. TSANG.

PART 1 – GENERAL

1.01 SUMMARY

A. Work in this Contract will involve working environments that may be hazardous, contaminated, or non-hazardous. Such hazardous and non-hazardous environments include, and is not limited to: hazardous and non-hazardous materials, soils, groundwater and stormwater; heavy metals; petroleum hydrocarbons; polynuclear aromatic hydrocarbons; organic compounds; asbestos; serpentine rock (which may contain natural asbestos); lead based paint materials; railroad ties; sewage; sludge; debris; grit; sewer gases; oxygen deficiency; bacterial/biological contamination; and confined spaces.

B. Hazardous, and non-hazardous waste shall only be disposed at a certified and permitted California landfill or waste disposal facility (22 CCR 66262), or an equivalent out-of-State landfill or waste disposal facility (40 CFR 262).

C. The Contractor shall be responsible for the excavation, loading, handling, transportation and disposal of all waste excavated soils (including serpentine) and sediments (from dewatering activities). Disposal shall meet the requirements of certified and permitted California disposal facilities or equivalent out-of-State disposal facilities. All such transportation and disposal activities shall require the approval of the City Representative prior to actual loading and transportation. The Contractor shall be responsible for the excavation and handling of contaminated and hazardous wastes.

D. All reference to hazardous waste and/or hazardous material and/or hazardous soil shall incorporate definitions of hazardous pollutant, hazardous contaminant, hazardous material, hazardous substance, hazardous waste, toxic substance applicable as per all Federal, State, Regional and Local statutes, laws, regulations and policies.

E. The Contractor shall be responsible for the handling, transportation and disposal of all excavated soils (including serpentine) in accordance with the requirements of Class I, II and III landfill, or out of State landfill.

F. The Contractor shall separate the excavated materials i.e., well drilling spoils or tailings, asphalt, concrete, wooden and metal debris, and other debris from other soils, and shall properly dispose of the excavated materials.

G. In the event that hazardous or regulated waste are encountered and a change order is issued to the Contractor to handle and transport these wastes, the Contractor shall adhere to the following requirements:

1. The Contractor shall furnish all labor, materials, equipment, and incidentals required to load and transport and dispose those materials identified as hazardous waste. Also, the Contractor shall provide surface cleanup of spillage and ultimate disposal of contaminated materials found within the project confines. The Contractor shall obtain all the permits required. The Contractor shall comply with all the listed applicable regulatory requirements as well as other Federal (including DOT - HM - 181 as per 49 CFR Part 172), State and local regulations, codes, and ordinances, which govern or regulate hazardous waste.

2. All excavated materials classified as hazardous waste shall be hauled off the site by the Contractor using a licensed hazardous waste hauler and the Uniform Hazardous Waste Manifest Form, to an approved waste disposal facility, in accordance with all applicable Federal, State and Local regulations. The Contractor shall prepare the hazardous waste manifest for each shipment of hazardous wastes from the site. The licensed hauler shall carry a hazardous waste manifest (shipping document) with each truck load. The manifest shall describe the contents of each truck carrying materials to the waste disposal site, including, as applicable, the weight of the waste materials. The licensed hauler shall also sign and date the manifest indicating that he/she has accepted the load described in the manifest on that particular day. The City Representative will sign the manifest and keep the Generator's copy (yellow) and the DTSC copy (blue) and give the remaining copies to the licensed hauler. Weight and not volume, shall be used to measure waste quantities for manifest purposes. The City Representative will provide a hazardous waste generator identification number for use on the manifest while the Contractor shall provide the State Transporter’s ID and Phone Number. Should any hazardous waste manifest not be returned within thirty-five (35) days of shipment, the Contractor shall initiate follow-up and shall document its follow-up effort in writing with an Exception Report as per 40 CFR 262.42 and/or 22 CCR 66262.42 and provide a copy to the City Representative. A copy of the completed hazardous waste manifest shall be provided to the City Representative indicating each waste shipment has

been received at the waste treatment or disposal facility within two (2) days of their return to the Contractor.

3. The Contractor shall be responsible for marking, labeling, placarding, packaging, CAL-EPA registration, and manifesting wastes prior to transport in accordance with all applicable regulations.

4. Transportation of hazardous waste shall be carried out by a licensed hauler in accordance with applicable regulations. The Contractor shall be responsible for cleaning up any hazardous waste discharge/spill from this contract, which occurs during transportation. The Contractor shall also comply with the applicable regulations under 40 CFR Part 263 and 22 CCR Section 66263 – Standards Applicable to Transporters of Hazardous Waste – including licensing, manifest system, record keeping, and discharges.

H. The Contractor shall provide a weight measurement of all excavated material produced which shall correlate the measurement to either the vehicle's Bill of Lading number or the Hazardous Waste Manifest number. The information shall show the date of loading, net weight of soil loaded to the appropriate vehicle, and an identification of the vehicle, which has been loaded. All such information shall be given to the City Representative in order to reconcile the Contractor's charges for hauling and disposal of contaminated excavated soils, bay mud, and other wastes.

I. Hazardous and contaminated materials and hazardous waste shall be handled in accordance with the requirements of the Contract documents, as well as applicable laws and regulations in effect at the time of disturbance, transport or disposal of said hazardous materials or waste. In the event of conflict, the more stringent requirement shall apply.

J. The Contractor and not the City, is responsible and liable for the health and safety, and protection from exposure risks of its employees and sub-contractors, as per Federal, State and local statutes, laws and regulations. The Contractor is obligated to conduct any required personal air monitoring of its workers, at its own expense. The Contractor shall be responsible for providing its employees with all levels of personal protective equipment ("PPE").

K. The Contractor shall take into account the productivity losses, if any, due to but not limited to encountering hazardous or non-hazardous materials, the use of respirators and PPE. The City will not pay any additional compensation to the Contractor due to encountering and managing hazardous or non-hazardous materials, use of respirators, and PPE.

L. All work in this Section is incidental, except for the transportation and disposal of hazardous waste excavated soils under the allowance for "Handling, Transportation and Disposal of Hazardous Wastes, Toxic Materials and

Serpentine Soils". All costs associated with the temporary storage of soils in storage bins are included as incidental work. Control of potentially hazardous materials and conditions at the Project site is the responsibility of the Contractor.

M. Conditions for acceptance at various local landfills/waste disposal facilities include, filling out of a waste profile, obtaining a landfill service agreement and account, and visually confirming that waste hauled to the landfill has greater than 50% solids and no free liquids. It is the Contractor's responsibility to make arrangements with the landfill site and meet the landfill site's requirements for disposal.

N. The City Representative reserves the option and right, at any time, to excavate, remediate, bioremediate, haul, recycle or dispose of both, hazardous and non-hazardous materials at its own facilities, California State approved facilities, contracted facilities or contracted out-of-state facilities.

O. Some materials encountered during demolition, renovation, utility piping installation and excavation of native soil or non-native fill material contain constituents known to the State of California to be either carcinogenic or toxic to reproduction. This Section includes hazardous materials related precautions, general requirements and handling procedures.

P. The Contractor shall comply with all applicable laws and regulations regarding the generation, management, characterization, and disposal of hazardous waste. The Contractor is solely responsible for identifying which regulations apply. Examples of regulations that may apply include but are not limited to:

1. Resources Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq. and regulations 40 CFR Part 260 et seq.

2. California Health and Safety Code, Division 20 and regulations, and 22 CCR Section 66000 et seq.

3. City and County of San Francisco Municipal Code, Article 22A - Analyzing Soils For Hazardous Waste.

4. For asbestos hazards applicable requirements include:

   a. Cal/OSHA Construction Asbestos Standard, 8 CCR Section 1529.

   b. BAAQMD Regulation 11, Rule 2 and Regulation 11, Rule 14.

   c. Environmental Protection Agency NESHAP and AHERA regulations (40 CFR Part 763, as applicable).

   d. Occupational Safety and Health Administration (inclusive of OSHA 29 CFR 1926.1101)

   e. California Environmental Protection Agency (Cal/EPA) Title 22.

f. Other applicable federal, state, and local governmental regulations pertaining to work involving asbestos-containing materials (ACM), naturally-occurring asbestos, and asbestos waste.

g. The Final Regulation Order of the California Code of Regulations (CCR) Title 17, Public Health, Section 93105, on Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations

Q. Respiratory Protection: The Contractor shall assess potential exposures to hazardous materials and conditions and comply with 29 CFR 1926.62 (f) and 8 CCR 5144. Provide a hazard analysis. Identify the appropriate respiratory protection to be used for the various tasks. Comply with all requirements associated with proper use of respirators.

1.02 REQUIREMENTS

A. CONTRACTOR LICENSING REQUIREMENTS

1. For work involving asbestos abatement and/or asbestos waste removal the following are required: a valid asbestos handling license issued by the California Contractors State License Board ("CSLB") and a valid current Certificate of Registration for Asbestos-Related Work as issued by the California Department of Industrial Relations – Division of Occupational Safety and Health ("Cal/OSHA").

2. Contractors who perform hazardous substance removal work at specific sites and/or who bid for the installation or removal of, or install or remove, underground storage tanks, must have a hazardous substances certification in addition to their existing State of California licenses (e.g., class A, general engineering, class C-12, earthwork and paving, or, class B, general building license).

B. REQUIREMENTS FOR WASTE TRANSPORTERS

1. All contaminated and hazardous material shall be placed directly into the transport vehicle for transporting to the disposal facility. Contaminated and hazardous materials shall be transported separately, with no mixing with other types of materials.

2. The Contractor shall ensure that its drivers as well as the sub-contractor drivers have in their possession during the hauling of material and soil, a valid driver's license and vehicle registration, valid insurance meeting regulatory requirements, and licensing in compliance with all applicable California State and Local vehicle regulations. A current Class I Certificate of Compliance from the California Highway Patrol shall be affixed to each vehicle.

3. The Contractor shall be responsible for informing all drivers of hauling vehicles about:
   a. The nature of the haul material.
   b. Any recommended routes.
   c. Applicable regulations pertaining to City street excavations; and codes, standards, and regulations of California Department of Transportation (Caltrans).
   d. The City's regulations and requirements for proper handling and transportation of the soil.

4. Excavated and excess existing soil, or excavated and unsuitable existing soil for reuse as backfill shall be transported and disposed at a certified and permitted California landfill, or an equivalent out-of-State landfill.

5. All hazardous materials/waste haulers shall possess a Hazardous Substance Removal Certification granted by the State of California, Contractor’s State License Board , and all other required certifications and insurance.

6. Haul trucks carrying excavated material shall be loaded so that the soil does not extend above the walls of the truck bed, and there is no leakage from any vehicle.

7. All loads shall require covering, regardless if the material is wet, hazardous or non-hazardous. Soil loads shall be tightly covered to prevent soils from spilling over the sides and back of the trucks. In addition, the Contractor shall mist any excavated serpentine, and cover (irrespective of it being wet) before the haul truck leaves the construction site.

8. The Contractor shall be responsible for cleaning up any excavated material spill, which occurs during loading, handling and/or transportation.

9. Preparation for shipment: The Contractor shall be responsible for marking, labeling, placards, and packaging prior to transport, in accordance with all regulations.

10. The Contractor will be responsible for completing Bill(s) of Lading and Hazardous Waste Manifests as described in Article 3.02 below.

C. REQUIREMENTS FOR WASTE DISPOSAL VENDORS, LANDFILLS, AND FACILITIES

1. At a minimum all waste disposal facilities will be licensed under RCRA and/or permitted under 14 CCR sections 18100 through 18105.

2. At a minimum all waste disposal facilities will have valid insurance meeting regulatory requirements and requirements in Section 00 73 16 – Insurance Requirements.

1.03 SUBMITTALS

A. Upon receipt of Notice to Proceed, the Contractor shall provide proof of valid training records and certifications to the City Representative. Depending on the nature of the work these may include:

1. Workers HAZWOPER Training Records including refreshers

2. Workers Medical Surveillance, respirator clearance, and fit-testing records

3. Workers AHERA training records

4. Workers asbestos certifications

B. The Contractor shall submit Certification of Pollution Legal Liability ("PLL") Insurance or Contractor Pollution Liability Insurance ("CPL") to the City Representative prior to beginning hazardous waste work:

C. The Contractor shall submit Evidence of Contractors Hazardous Waste certification to the City Representative prior to beginning hazardous waste work.

D. Regardless of the expected quantity of hazardous materials to be encountered and removed for disposal, the Contractor shall prepare a Site-Specific Hazardous Materials Management Plan ("HMMP") in accordance with Section 01 33 00 – Submittal Procedures. The Contractor shall submit the site specific Hazardous Materials Management Plan within 10 consecutive calendar days after the Notice to Proceed and prior to any demolition /renovation activity. No hazardous materials removal work will start without the City Representative's prior approval of the HMMP.

E. The Contractor shall submit to the City Representative a copy of its Health and Safety Plan ("HASP") that meets regulatory requirements for the work being performed. If hazardous waste or contaminated soils are encountered the HASP shall meet the requirements of 8 CCR 5192. The Contractor will amend the HASP as required to cover all site work and regulatory requirements and provide the amendments to the City Representative. This HASP may be submitted as an appendix to the HMMP, if desired.

F. The Contractor shall submit the following import fill and waste disposal records to the City Representative:

1. Transporter's current Class I Certificate of Compliance from the California Highway Patrol and Hazardous Substance Removal Certification, as warranted.

2. Bill(s) of Lading, as warranted.

3. Hazardous Waste Manifest(s), as warranted.

4. Import Fill Spreadsheet, as warranted.

5. Import Fill Analytical results, as warranted.

6. Soil Disposal Spreadsheet, as warranted.

G. Serpentine deposits contain varying amounts of naturally occurring asbestos, which, if friable, could be hazardous to human health if inhaled. The Contractor shall be responsible for workers' safety and health and shall conduct personal air monitoring on its own workers at its own expense. Upon receipt of laboratory results, the Contractor shall immediately provide the City Representative with a copy of the personal air monitoring results and the daily log that pertains to construction activities during the personal air monitoring period, including but not limited to, type of construction activity, site conditions and weather, engineering controls, notes on any invalid samples, dates and hours of sampling, and calibration of air pump logs.

H. If work involves excavation in areas of naturally occurring asbestos the contractor shall prepare and submit to the City Representative the following:

1. Records of watering schedules, daily logs of dust mitigation and air monitoring activities (if required) at the construction site.

2. Copies of all test results, and locations of asbestiform containing soils.

3. As required in 17 CCR 93105 an Asbestos Monitoring and Mitigation Plan will be submitted for work in areas greater than one acre that contain naturally occurring asbestos.

I. Soil Disposal Spreadsheet: The Contractor shall submit a monthly spreadsheet for all excavated soils disposed from the project site. The spreadsheet shall include information on project name, contract #, date the soil was excavated, the location from where the soil was excavated (street address and depth range), quantity (cubic meters and tons), soil type, bill of lading # or manifest #, transporter, and landfill information. The Contractor shall provide copies of the spreadsheet, as per Section 01 33 00 – Submittal Procedures.

J. Import Fill Spreadsheet: The Contractor shall submit a monthly spreadsheet for all soils imported to the project site. The spreadsheet shall include information on project name, contract #, date the soil was placed, the location from where the soil was imported, quantity, soil type, and soil chemical analysis. The Contractor shall provide copies of the spreadsheet, as per Section 01 33 00 – Submittal Procedures.

K. Compensation for transportation and disposal of hazardous waste excavated soil shall be made as described in Section 01 20 00 – Price and Payment Procedures.

L. If work involves excavation in the area designated in Section 1001 of the San Francisco Public Works Code, the contractor shall prepare and submit to the City Representative the following:

1. Site History Report

2. Soil Testing Report

3. As warranted, Site Mitigation report

1.04 DEFINITIONS

A. Asbestos Hazard Emergency Response Act ("AHERA"): contains some but not all requirements for asbestos training, certifications, surveys, and work practices.

B. Excavated material: includes material and soil excavated, handled, and managed in the course of the contract work. Excavated material does not include asphalt, concrete, aggregate base, vegetation, debris, wood, obstructions, and other deleterious matter.

C. Generator: The City is the "generator" as defined in Section 66260.10 of Article 2, Chapter 10, Division 4.5 of Title 22 of the California Code of Regulations (CCR) and in Title 40, Code of Federal Regulations ("CFR") of any excavated hazardous waste. The City will be responsible as the generator to the extent of the law.

D. Hazardous Waste: A material determined to be a waste. This may include excavated material, asbestos, loose and peeling lead-based paints and any other material that is regulated by and requires management, handling, transport, treatment, storage and disposal according to the requirements of the Federal Resource Conservation Recovery Act ("RCRA") and associated regulation 42 USC 6901 et seq. and 40 CFR Part 260 et seq., or the California Hazardous Waste Control Law and associated regulations (Health and Safety Code 25000 et seq. and 22 CCR 66260 et seq.).

E. Lead-Based Paint Debris: Any component, fixture, or portion of a building coated wholly or partly with LBP. LBP debris can also be any solid material coated wholly or partly with LBP resulting from a demolition. Examples among many others include ceilings, crown molding, walls, chair rails, doors, door trim, floors, fireplaces, shelves, and radiators and other heating units.

F. Management: of excavated materials or "management" means transportation, transfer, recycling, recovery, disposal, handling, processing, storage, and treatment of excavated materials as per federal, state and local laws and regulations.

G. National Emission Standards for Hazardous Air Pollutants ("NESHAP"): regulates air emissions of hazardous pollutants including potential air emissions caused from work with asbestos.

H. Soil: means earth material composing the superficial geologic strata (material overlying bedrock), consisting of clay, silt, sand, or gravel size particles as classified by the U.S. Soil Conservation Service. Soil does not include asphalt, concrete, aggregate base, vegetation, debris, wood, obstructions, and other organic, unsound or deleterious matter.

I. The following Soil Classifications with corresponding requirements are established solely for the purpose of payment for the transportation and disposal of the surplus waste excavated materials:

1. RCRA Hazardous Soil: A waste excavated material that is classified both as a California hazardous waste and as a RCRA hazardous waste. As such it requires disposal at a permitted disposal facility and may require stabilization prior to landfill disposal.

2. California Class I (non-RCRA) hazardous waste: is waste excavated material that is classified as California (non-RCRA) hazardous waste, requires disposal at a Class I disposal facility or a similarly permitted out-of-state facility and requires transport by a registered hazardous waste transporter.

3. California Class II waste (Class II): is non-hazardous waste, and is not a California or Federal hazardous waste. It requires disposal at a California Class II disposal facility or at a similarly permitted out-of-state facility without the need of a registered hazardous waste transporter.

4. Uniform Hazardous Waste Manifest Form: is the form to be used for all hazardous waste shipments as specified in 40 CFR 262.21 and 22 CCR 66262.21

5. Universal Waste: (CCR Title 22, Division 4.5, Chapter 34) Hazardous wastes that are more common and pose a lower risk to people and the environment than other hazardous wastes. Universal wastes are handled with reduced management requirements. Examples of universal waste: batteries, fluorescent tubes (lamps), electronic devices (cell phones, computers, televisions), cathode ray tubes (CRTs), mercury wastes (thermometers and toys), and non-empty aerosol cans.

6. Waste: Any discarded material of any form as defined by the Code of Federal Regulations 40 CFR 261.2 and the California Code of Regulations 22 CCR 66261.2.

7. Waste excavated soil: is excavated soil that is a waste and cannot be re-used within the project site per the re-use criteria of this Specification. It

is surplus, and is to be managed, transported, and disposed of as part of the contract. Waste excavated soil does not include asphalt, concrete, vegetation, wood, debris, obstructions, and other organic, unsound or deleterious matter.

1.05 TRAINING AND QUALIFICATIONS

A. WORKER'S HAZARDOUS WASTE OPERATIONS AND EMERGENCY RESPONSE (HAZWOPER) TRAINING

1. The Contractor shall provide a minimum of four workers [with current Hazardous Waste Operation and Emergency Response ("HAZWOPER") certification] who may come in contact with, may be exposed to, disturb, operate equipment or otherwise excavate, handle, transport and dispose hazardous or non-hazardous excavated material. This training shall be required irrespective whether hazardous or non-hazardous materials are found. Each such employee shall possess a current 40-hours HAZWOPER training and certification and the associated 8-hours HAZWOPER refresher training (as per Sections 5192 and 5144 of Title 8, CCR and Title 29 CFR, Sections 1910.120 and 1910.134), and shall be certified to wear appropriate personal protective equipment.

2. The City will not grant extensions of time or increases in payment for costs associated with the Contractor's inability to provide properly trained personnel, costs of training Contractor's workers, or hiring of required personnel. The Contractor shall comply with the San Francisco Health Code, Article 21, addressing Hazardous Materials. No time extensions will be granted for the Contractor's inability to supply properly trained individuals for the project.

B. WASTE-SPECIFIC TRAINING

1. The Contractor and Contractor's subcontractors shall familiarize themselves with the liability statutes of (1) the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA") of 1980 found in 42 USC, Section 9601 et seq. (2) the Superfund Amendments and Re-authorization Act (SARA) of 1986 found in 42 USC, Section 9601 et seq. and (3) the California Hazardous Substance Account Act (HSAA) of 1981 found in California Health and Safety Code, Section 25300 et seq.

2. The Contractor shall only use workers that are trained in accordance with the requirements of aforementioned Article 1.05.A.1 to work in and around, excavate and handle serpentine contaminated and/or hazardous soils.

C. QUALIFICATIONS

1. Site Safety Representative ("SSR"): In accordance with the requirements specific to this Section listed below and with those of Section 00 73 19 – HEALTH AND SAFETY REQUIREMENTS. The Contractor shall assign a qualified person who shall report directly to the Contractor's Superintendent, and who possesses the necessary training to be knowledgeable in the identification, control, and management of the hazardous materials and conditions on-site. The SSR is responsible for the following:

   a. Enforcing safe work and hygiene practices in compliance with the Site-Specific Hazardous Materials Management Plan ("HMMP") discussed further in Article 1.03.D.

   b. Advising subcontractors, vendors, and visitors to the site of potential hazards and minimum general requirements of the HMMP.

   c. Coordinating subcontractor's work regarding hazardous material procedures and controls.

   d. Establishing and maintaining restricted work areas.

   e. Requiring proper use of personal protective equipment.

   f. Communicating approved modified safety requirements to site personnel as well as visitors to the site.

   g. Notifying and coordinating with the City Representative for immediate assessment and remediation work for unforeseen hazardous materials and/or conditions discovered throughout the duration of this project.

   h. Notifying and coordinating signing of waste manifests with the City Representative in a timely manner.

   i. Ensuring Contractor's personnel have proper training to perform the work.

2. Hazardous Materials Handlers: Only qualified persons shall engage in hazardous material-related work. Contractor and subcontractor personnel who come into contact with, are exposed to, disturb, operate equipment or otherwise handle hazardous or contaminated material or debris shall have received appropriate hazard communication and required training, be under personal and medical monitoring programs, and shall be certified to wear appropriate personal protective equipment as required by the applicable laws and regulations. Special qualifications which may be required depending on the Contractor's means and methods include, but are not limited to, the following:

   a. Asbestos-Related Construction Work Involving Asbestos-Containing Materials exceeding 100 square feet or 100 linear feet:

1) Valid asbestos handling license issued by the California Contractors State License Board ("CSLB") and a valid current Certificate of Registration for Asbestos-Related Work as issued by the California Department of Industrial Relations – Division of Occupational Safety and Health ("Cal/OSHA").

2) Work shall be completed under the on-site supervision of a Competent Person as defined Cal/OSHA under 8 CCR 1529.

3) All abatement workers shall have AHERA training with current annual 8-hour refresher training, annual medical exams for the use of respiratory protection, and a fit test of appropriate respirators every 6 months.

b. Lead-Related Construction Work: All affected workers shall have lead training, annual medical examinations and approval for the use of respiratory protection, and fit testing of respirators complying with the California Occupational Safety and Health Administration (Cal/OSHA)'s Lead Standard for the Construction Industry, regulation 8 CCR 1532.1 when affecting lead paints and lead construction hazards including, but not limited to:

1) Demolishing or salvaging structural items where lead or material containing lead is present.

2) Removing or encapsulating materials containing lead.

3) Constructing, altering, repairing or renovating structures, substrates, or portions thereof, that contain lead or materials containing lead.

4) Scrape paint off windows, trim, etc. prior to repainting and the work is done as part of preparing the surface for repainting.

5) Installing of products containing lead.

6) Cleaning-up of lead contamination.

7) Transporting, disposing, storing, or containing lead-based paint debris or lead-containing hazardous waste, as both defined in Article 1.04, on the site or other locations where construction and renovation activities are performed.

The Contractor is to manage, and include in its bid, the costs of managing, any of the above activities as Cal/OSHA Lead Trigger Tasks per 8 CCR 1532.1 unless or until the Contractor provides an Exposure Assessment that determines otherwise.

c. Lead Abatement Work: Only qualified persons with California Department of Public Health ("CDPH")-approved Lead Workers training, annual medical examinations and approval for the use of respiratory protection, and semi-annual fit testing of respirators under the direct supervision of a CDPH approved Lead Abatement

Supervisor shall engage in work defined under Cal/OSHA regulation 8 CCR 1532.1 affecting lead-based paints and lead construction hazards, including but not limited to:

1) Working in an environment where lead exposures may exceed 30 micrograms/m3 in a residential or public building.

2) Abating lead-based paints including, but not limited to, abatement of loose and peeling lead-based paints, demolition and disposal of concrete-encased primed structural steel, and stripping of lead coatings from structural steel prior to torching or welding.

d. PCBs-Containing Ballast-Related Work: Removal of non-leaking Polychlorinated Biphenyls ("PCBs")-containing ballasts may be completed by workers with PCBs hazard awareness training as verified by the Contractor's Health and Safety Officer or Superintendent. Removal of leaking or damaged PCBs-containing ballasts from lighting fixtures shall be only completed by trained workers, wearing protective gloves and following safety procedures as outlined in the HMMP. Hazardous waste shall be handled according to the U.S. Environmental Protection Agency's Standards 40 CFR 761.60 and 761.65 (22 CCR Section 66699(b) in California).

e. Transformer Related Work: aside from any other requirements from the regulators and from any other applicable Section of this specification, any Contractor's personnel conducting this type of work must have PCBs hazard awareness training as verified by the Contractor's Site Safety Representative or Superintendent.

f. Mercury-Containing-Lamp-Related Work: May be completed by workers with mercury hazard awareness training as verified by the Contractor's Health and Safety Officer or Superintendent.

g. Other Hazardous Materials-Related Work: May be completed by workers with specific hazard awareness training of the material in question as verified by the Contractor's Health and Safety Officer or Superintendent.

h. Contaminated Soils-Related Work including Underground Storage Tanks and CCA treated Wood: workers shall have current 40-hour HAZWOPER training and 8-hour annual refresher training per OSHA Regulation 29 CFR 1910.120 (8 CCR 5192 in California) and shall comply with other health and safety requirements as approved in a Site-Specific Hazardous Materials Management Plan.

i. Biohazard Work: Work areas contaminated with fecal matter and human excretions, along with needles and syringes and other materials potentially contaminated with infectious blood borne pathogens or other biohazards shall comply with the health and

safety requirements as approved in a Site-Specific Hazardous Materials Management Plan.

j. Mold and Fungi Remediation Work: May be completed by workers with mold hazard awareness training as verified by the Contractor's Health and Safety Officer or Superintendent.

1.06 REGULATORY INDEMNIFICATION

A. The Contractor shall retain, and the City will not indemnify against, any liability of the Contractor resulting from the activities or duties, which are the responsibility of the Contractor under the terms of this Contract. This includes, but is not limited to, liability arising from the arrangement of transportation of any excavated material, whether on- or off-site. Therefore, the City will not assume any liability, present or future, incurred by the Contractor by reason of these activities.

B. The Contractor shall be responsible for all liability, and costs necessary to prevent its own or subcontractors' operations from violating any federal, state, or local statutes, laws, regulations and policies.

1.07 PLANS

A. SOIL MANAGEMENT AND RE-USE PLAN (SMRP)

1. ***[Manual insert field – If extensive soil management and reuse are anticipated a soil management and reuse plan that also meets the requirements of 1.07.B below can be requested from the contractor.]***

B. ADDITIONAL CITY AND COUNTY OF SAN FRANCISCO Municipal Code, ARTICLE 22A (MAHER ORDINANCE) PLANS

1. ***[Manual insert field – verify if project is within the City of San Francisco Article 22A area (map available from SFDPH). If the project is within the area insert the following:]***

2. The contractor shall prepare and provide to the City Representative the following reports related to the City of San Francisco Ordinance 22A:

a. Site History Report - The contractor shall provide a site history for the property prepared by an individual with the requisite training and experience described in regulations adopted pursuant to CCSF Article 22A, Section 1232. The site history shall contain a statement indicating whether the property is listed on the National Priorities List, published by the United States Environmental Protection Agency pursuant to the Comprehensive Environmental Response Compensation and Liability Act, 42 U.S.C. Section 9604(c)(3) or listed as a hazardous substance release site by the California Department of Toxic Substances Control or the State Water

Resources Control Board pursuant to the California Hazardous Substances Act, Health and Safety Code Section 25356.

b. Soil Analysis Report - The contractor shall submit a soil analysis report prepared by the persons conducting the soil sampling and analysis. The report shall include the following information:

1) The names and addresses of the persons and the certified laboratory that conducted the soil sampling, the soil analysis and prepared the report;

2) An explanation of the sampling and testing methodology;

3) The results of the soil analyses;

4) Whether any of the analyses conducted indicate the presence of hazardous wastes and, for each, the level detected and the State and federal minimum standards, if any;

5) The State and federal agencies to which the presence of the hazardous wastes has been reported and the date of the report;

6) A statement that the certified laboratory, after examination of the site history, has no reason to conclude that hazardous wastes other than those listed in Section 1225(a)(1) through (a)(9) were likely to be present on the property.

c. Site Mitigation Report - If the soil sampling and analysis report indicates that hazardous wastes are present in the soil, contractor shall submit a site mitigation report prepared by a qualified person to the City Representative.

1) For the purposes of this Section, a qualified person is defined as one or more of the following who is registered or certified by the State of California: soil engineer, civil engineer, chemical engineer, engineering geologist, geologist, hydrologist, industrial hygienist or environmental assessor.

2) The site mitigation report shall contain the following information:

A) A determination by the qualified person as to whether the hazardous wastes in the soil are causing or are likely to cause significant environmental or health and safety risks, and if so, recommend measures that will mitigate the significant environmental or health and safety risks caused or likely to be caused by the presence of the hazardous waste in the soil. If the report recommends mitigation measures it shall identify any soil sampling and analysis recommends the project applicant conduct following completion of the mitigation measures to verify that mitigation is complete;

B) A statement signed by the person who prepared the report certifying that the person is a qualified person within the meaning of this Section and that in his or her judgment either no mitigation is required or the mitigation measures identified, if completed, will mitigate the significant environmental or health and safety risks caused by or likely to be caused by the hazardous wastes in the soil;

C) Complete the site mitigation measures identified by the qualified person in the site mitigation report; and

D) Complete the certification required by CCSF Article 22A, Section 1229.]

C. PROJECT SPECIFIC MITIGATION MEASURES

1. ***[Manual insert field – verify if project environmental documents (EIS/EIS) have generated mitigation measures to perform the work]***

D. OTHER LOCAL AGENCY REQUIRED PLANS

1. ***[Manual insert field – verify if local agency (city, county, or air quality management district) requires any specific plans to perform the work]***

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.01 SITE WORK PROCEDURES

A. CLASSIFICATION AND MANAGEMENT OF EXCAVATED MATERIALS

1. SOIL CLASSIFICATION

a. In any excavation, if the Contractor encounters material that, Contractor believes, may be contaminated and/or hazardous wastes, Contractor shall immediately notify the City Representative.

b. If authorized by the City Representative, excavation in immediate area of the suspected hazardous material shall be suspended until the City Representative authorizes to resume the excavation. If such suspension delays the current controlling operation, the Contractor will be granted an extension of time as provided in the Specifications.

c. The contractor shall not conduct any soil sampling or analysis without prior written permission from the City Representative. This does not exclude the Contractor from its obligation for personnel air monitoring.

d. The City reserves the right to use other resources for exploratory work to identify and determine the extent of the contaminated and/or hazardous waste and for removing such material from the site.

e. The Contractor shall arrange for the testing, hauling and disposal of the contaminated/hazardous excavated soils. The Contractor shall be familiar with the acceptance and analytical testing criteria, methodology of the landfills/disposal facilities available, and of the corresponding disposal fees and taxes. All such disposal activities shall require the approval of the City Representative prior to actual testing, loading and disposal

f. The Contractor shall be responsible for collecting and forwarding the soil samples to the accredited laboratory. The Contractor shall furnish all labor, materials, equipment, sampling bottles, chain-of-custody forms, preservatives, shipping containers and incidentals required to properly sample and transport the soil samples to an accredited laboratory.

g. The furnishing of all labor, materials, and equipment for sample collection, handling and delivery to the testing laboratory, soil and groundwater analysis and reporting of such testing and analysis will be paid as Incidental Work. Only laboratory analyses for soil and serpentine will be paid under Bid Item No***. [Manual insert field - Insert the specific Bid Item No. from Section 00 41 10 here, and also verify or correct the Bid Item's presumed title wording, which immediately follows]***, ALLOWANCE FOR HAULING, TESTING AND DISPOSAL OF HAZARDOUS MATERIALS. Refer to Sections 01 35 43.13, 01 20 00 (as applicable) and Section 00 41 10.

h. The City may instruct the Contractor to analyze excavated and excess existing soil, or excavated and unsuitable existing soil for reuse as backfill. The Contractor shall build in 15 working days in the schedule for the time required for each event to sample and obtain the analytical results.

2. IDENTIFICATION AND MANAGEMENT OF NATURALLY OCCURRING ASBESTOS

a. The Contractor shall comply with the final regulation in California Code of Regulations, Title 17, Section 93105 – Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations when excavating areas of serpentine fill and rock.

b. Additional Asbestos Hazard Dust Mitigation measures shall include, but not be limited to the following:

1) Employee / worker notification, safety, and monitoring shall be performed in accordance with applicable agency laws and

requirements (e.g., California Code of Regulations ("CCR"), Title 8 section 1529 et al).

2) During disturbance activities, the Contractor shall maintain onsite records of watering schedules, locations of asbestiform containing soils, daily logs of dust mitigation and air monitoring activities (if required) at the construction site. All such records shall be presented to the City Representative at the weekly progress meetings.

3) Copies of all test results, and locations of asbestiform containing soils shall be submitted to the City Representative upon completion of coverage, retained at the construction site and upon request, be readily available to the City Representative.

4) Non-asbestiform cover soil or other material shall cover asbestiform containing soils placed within fills.

5) Asbestiform containing soils uncovered during the construction of utilities shall be appropriately covered such as by placement within deep fills. Utility trenches shall be backfilled with non-asbestiform cover materials.

6) Asbestiform containing soils moved off-site shall be managed in accordance with appropriate laws and requirements.

7) Inform the City in writing and obtain City approval prior to any sale, supply, or offer to sell any excavated material. The Contractor shall similarly comply with the Bay Area Air Quality Management District's Regulation 11, Rule 14 for asbestos-containing serpentine, California Air Resources Board - Asbestos Airborne Toxic Control Measure For Construction, Grading, Quarrying, And Surface Mining Operations, and Title 17, Sections 93105 and 93106 of the California Code of Regulations ("CCR"). In such a case, the Contractor at its own expense shall perform any and all engineering and chemical testing as required by the City and by federal, state and local statutes, laws, regulations and policies.

8) Comply with the advisory from the State of California, Air Resources Board on the use of asbestos-containing materials / serpentine rock on schoolyards, playgrounds and other surfaces (ARB Fact Sheet #2). Additional information may be found at http://www.arb.ca.gov.

   NOTE: Criminal and/or civil penalties may be imposed on any person who violates any rule, regulation, permit or Order of the State Air Resources Board or a district that is adopted to control and contain air emissions.

c. ASBESTOS AIRBORNE TOXIC CONTROL MEASURES

1) As per the California Code of Regulations (CCR) Title 17, Public Health, Section 93105, on Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations, the following stringent measures are required.

2) Notifications for Naturally Occurring Asbestos (NOA) shall be made to the local Air Quality Management District or Air Pollution Control District ***[Insert Bay Area Air Quality Management District (BAAQMD) or San Joaquin Valley Air Pollution Control District (SJVAPCD)]***.

3) For project construction areas over one acre where asbestos is known or expected to occur, Contractor shall prepare an Asbestos Monitoring and Mitigation Plan and submit it to the local Air Quality Management District or Air Pollution Control District ***[Insert BAAQMD or SJVAPCD]***.

4) Set up a continuous misting system to prevent the release of asbestos fibers when handling or storing dust generating materials.

5) Maintaining a gravel cover with a silt content that is less than 5 percent and asbestos content that is less than 0.25 percent, as determined using an approved asbestos bulk test method, to a depth of 3 inches on surfaces being used for travel.

3. IDENTIFICATION OF OTHER WASTE CHARACTERISTICS AND REGULATED MATERIALS

a. Separate or screen out asphalt, concrete, aggregate base, vegetation, wood, debris, obstructions, and other organic, unsound or deleterious matter from the excavated soil.

b. The Contractor shall arrange for the testing, hauling and disposal of any waste, universal waste, or hazardous waste generated at the site. The Contractor shall be familiar with the acceptance and analytical testing criteria, methodology of the landfills/disposal facilities available, and of the corresponding disposal fees and taxes. All such disposal activities shall require the approval of the City Representative prior to actual testing, loading and disposal.

c. The Contractor shall be responsible for collecting and forwarding the waste samples to the accredited laboratory. The Contractor shall furnish all labor, materials, equipment, sampling bottles, chain-of-custody forms, preservatives, shipping containers and incidentals required to properly sample and transport the soil samples to an accredited laboratory.

B. TEMPORARY STOCKPILING OF EXISTING AND IMPORTED SOIL

1. If existing non-hazardous soils excavated from the project are in excess or cannot be reused, the Contractor shall store such soils at its own site, or accumulate it in storage bins onsite, and (for work located in San Francisco) as permitted by:

   a. DPW Order 187005 – Regulations for Excavating and Restoring Streets in San Francisco, and the SFPW Excavation Code.

   b. Department of Parking and Traffic (DPT), Regulations for Working in San Francisco Streets.

   c. Article 2.4, San Francisco Public Works Code, Excavation in the Public right-of-way.

2. The City does not provide a soil staging, storage, and loading area. The Contractor shall use its own or a subcontracted intermediate soil staging, storage, and loading facility.

3. If the City Representative allows for existing and imported soil to be stockpiled onsite, then the following conditions shall apply:

   a. Each mound of soil stockpiled along the project limits shall not exceed 3 feet in height and 10 feet in width.

   b. Stockpiled material shall not be stored in streets for more than 2 calendar days, including the day when the soil was excavated or delivered.

   c. If larger stockpile volumes and longer stockpile durations are needed in order to more effectively manage the reuse of existing soil, then the Contractor shall submit justification, detailed information and location of the changes to the City Representative for approval. Approval is subject to the City Representative's discretion.

   d. Stockpiles being stored overnight or longer shall be covered COMPLETELY with 10 mil (0.01 inch) HDPE plastic weighted or tied down securely.

   e. When rain is forecast within 72 hours, straw bales and/or silt traps shall surround the stockpile to minimize sediment runoff. ***(Refer to Section 01 57 23 – Stormwater Pollution Prevention, Erosion / Sediment Control).***

   f. The Contractor shall keep the stockpile(s) of existing soil dry so as to maximize reuse.

   g. After a stockpile has been removed, the Contractor shall wet sweep and vacuum the area, street, and sidewalk to remove any residual dirt.

h. Do not mix stockpiles of imported soil with existing soil.

4. The City Representative retains the right to suspend the use of temporary stockpiling onsite (within the project limits), in the event of negative public perception, aesthetic concerns, and regulatory concerns. In such an event, the Contractor may be required to remove the stockpile within 24 hours.

C. SECURING AREAS WITH EXPOSED, EXISTING SOIL

1. Wherever construction work exposes the existing soil or where existing soil is stockpiled, these areas shall be barricaded all around with continuous (no gaps greater than 4") fencing (either metal wire or orange plastic), Triton barriers, or other barricades at least 3' high. Ensure that barricades are installed taut and secured against strong winds. Alternatively, the exposed, existing soil in excavation areas such as trenches, may be covered over with plates or other acceptable means. The intent is to secure the exposed, existing soil from public contact.

D. UNDERGROUND TANK REMOVAL PROCEDURES

The procedures in this specification are not sufficient to address removal of Underground Storage Tanks. If an underground storage tank is identified during excavation work in the area will cease and the Contractor shall immediately notify the City Representative.

E. DESTRUCTION OF WELLS

1. If an underground well is identified during excavation work in the area will cease and the Contractor will immediately notify the City Representative. As requested by the City Representative the contractor may propose a well destruction method to the appropriate local agency and obtain approval to proceed with destruction using the proposed method. If approval is received the Contractor will provide written approval and a written destruction procedure to the City Representative prior to proceeding with well destruction.

F. REMOVAL OF RAILROAD TIES AND TREATED WOOD WASTE

1. Railroad ties and wood treated with preservatives (e.g. utility poles, piers, pilings, posts, pressure treated lumber, etc.), such as creosote, and/or pentachlorophenol, and/or Copper Napthenate, Zinc Napthenate, and/or Copper, Chromium, Arsenate ("CCA") and/or Ammoniacal Chromium, Zinc, and Arsenate ("ACZ0A") (that are not otherwise reused by the Contractor) shall be profiled, transported and disposed of at a California landfill licensed to accept this waste.

G. IMPORT MATERIAL

1. In advance of hauling in any import material, the Contractor shall provide chemical analytical results (one four-point composite per source for the same soil type, but a minimum of one four-point composite per 500 cubic meters) to be analyzed for Reactivity, Corrosivity, & Ignitability (RCI), Total Recoverable Petroleum Hydrocarbons (TRPH), CCR Title 22 metals, soluble Total Concentration Leaching Potential ("TCLP") and soluble Threshold Limit Concentration (STLC) metals, and any additional test as required by the City Representative. Analytical costs for any imported fill material incurred by the Contractor shall be done as Incidental Work.

2. The Contractor shall furnish the above analytical results at least ten (10) working days prior to bringing in the import material. The acceptance of import fill will be made by the City Representative, and will depend on the results of the analytical testing, backfill requirements in this specification, and has to be equal or less than the values set forth in the Regional Water Quality Control Board's Environmental Screening Levels ("ESLs"), for Surface Soils – Residential Land Use Permitted. Import Fill shall not be brought on-site, prior to the City Representative's approval of the submittal of the analytical results.

3. Import material shall meet the requirements of these specifications, and Section 714 of the DPW/BOE Standard Specification.

4. Asphalt, crushed concrete, bentonite, bay mud, clay, bricks, cobblestones, rocks, rubble, scrap metal, railroad tracks and ties, debris, serpentine, soils containing asbestos, imported contaminated soils, vegetation, wood, obstructions, and other organic, unsound or deleterious matter shall not be accepted as Import Fill material.

5. Import material shall be brought on-site at a rate where it is immediately used in the excavation. If the City Representative allows for import material to be stored overnight (only, and not longer) on site, then such import material shall be covered. Stockpiles being stored overnight shall be covered with 10 mil (0.01 inch) HDPE plastic weighted or tied down securely.

6. Import Fill Spreadsheet: The Contractor shall submit a monthly spreadsheet of all imported fill deposited at the project site. The spreadsheet shall include information on the project name, contract #, origin of import (street address, city), location of deposit (street address and depth range), quantity (cubic meters), soil type, environmental analytical results (attached), truckers and trucking firm(s) used and trucking logs and invoices. The Contractor shall provide this spreadsheet, as per Section 01 33 00 – Submittal Procedures.

H. REUSE OF EXCAVATED SOILS AS BACKFILL

1. The Contractor shall maximize the use of excavated soil as backfill material. Soils removed from the construction excavation (except for bay mud deposits, hazardous soils, and the clayey soils) shall be considered for use as backfill material provided that it meets the requirements as approved by the City Representative.

2. Soils excavated from the project site may be allowed for re-use as backfill provided they meet the requirements for import fill described in Paragraph 3.01G above.

3. The City Representative, in consultation with the appropriate regulatory agencies may allow reuse of excavated soils that do not meet the import fill requirements within the site . In these instances the Contractor will follow a Site Mitigation Report or Soil Management and Reuse Plan to manage and handle site soils following all applicable environmental and health and safety regulations.

4. Existing Soil: Reuse existing soil as backfill or fill material unless directed otherwise by the City Representative. Remove vegetation, wood, debris, obstructions, and other organic, unsound or deleterious matter prior to the placement of fills.

5. The reuse of soils as backfill material shall meet the requirements of this Specification and Specification ***[XX XX XX – Spec. Title]***.

6. Asphalt, un-crushed existing concrete, bentonite, bay mud, clay, bricks, cobblestones, rocks, rubble, scrap metal, railroad tracks and ties, debris, imported contaminated soils, vegetation, wood, obstructions, and other organic, unsound or deleterious matter shall not be accepted as backfill material.

7. Removal of unsuitable backfill material from the excavated soil is incidental work to this Contract.

8. Notify the City Representative when and where the existing soil is used as backfill.

9. Soils excavated from the project alignment classified non-hazardous (California Class II) may be transported and stockpiled offsite, and then transported back for reuse anywhere along the project's alignment, as long as it meets the re-use backfill material requirements of this Specification ***[XX XX XX – Spec. Title]***.

3.02 WASTE DISPOSAL PROCEDURES

A. WASTE PROFILING AND SEGREGATION

1. The Contractor shall be responsible for characterizing and profiling excavated materials and soils to ensure proper handling and disposal.

2. Excavated materials such as well drilling spoils or tailings, asphalt, concrete, wet material/slurry, wooden and metal debris, and other debris shall be separated from the contaminated/hazardous soils and be properly disposed of by the Contractor as incidental work.

3. The Contractor shall provide the City Representative with the following documentation and information:

   a. Name, address and phone number of landfill, type of landfill, volume/weight of soils transported, date of transport, original location of excavated soil, and other requested information.

   b. A copy of each bill of lading, certified weight ticket and other indication of the weight of the shipment, which has been received at the disposal facility to the City Representative so payment per bid item can be made, based on weight of the shipment.

   c. Any other pertinent information.

   d. All contaminated excavated material and unrestricted material shall be hauled off the site using a bill of lading approved by the City, to an approved treatment/disposal facility, in accordance with all applicable Federal, State and local regulations.

   e. For all contaminated excavated material and unrestricted material, the Contractor shall prepare a bill of lading for each shipment of material from the site. The bill of lading shall describe the contents of each truck carrying materials to the waste disposal site, including the address of the ultimate disposal site, the weight or yardage of the waste materials (as applicable), and an emergency phone number. The hauler shall sign and date the bill of lading indicating that he/she has accepted the load described in the manifest on that particular day. The City will sign the bill of lading and keep the appropriate number of copies and give the remaining copies to the hauler. Copies of bills of lading accepted by the treatment/disposal sites shall be provided to the City Representative.

4. The Contractor shall inform the City in writing, and obtain City approval prior to any sale, supply, or offer to sell any excavated material. The Contractor shall similarly comply with Bay Area Air Quality Management District's ("BAAQMD") Regulation 11, Rule 14 for asbestos-containing serpentine, the California Air Resource Board ("CARB"), Advisory #161, and Title 17, Sections 93105 and 93106 of the California Code of

Regulations ("CC"R). In such case, the Contractor at its own expense shall perform any and all engineering and chemical testing as required by the City and by federal, state and local statutes, laws, regulations and policies.

5. Soil shall not include asphalt, concrete, aggregate base, vegetation, wood, debris, obstructions, and other organic, unsound or deleterious matter. Asphalt, concrete, aggregate base, vegetation, wood, debris, obstructions, and other organic, unsound or deleterious matter, and non-hazardous waste excavated soil shall be hauled off as the Contractor's property as incidental work to the appropriate bid item.

6. Note: Some Class II landfills may have an age requirement as part of its acceptance, under their operations permit. The Contractor shall fill out a separate waste profile with the landfill owner or operator for such materials.

B. HAZARDOUS WASTE (CLASS I) DISPOSAL

1. The Contractor shall furnish all labor, materials, equipment, and incidentals required to transport those materials identified as hazardous waste for the purpose of disposal.

2. The Contractor shall comply with all applicable regulatory requirements listed as well as other applicable federal, state, or local laws, codes and ordinances, which govern or regulate transportation of wastes (including but not limited to DOT-HM 181 as per 49 CFR 172).

3. Packing, labeling, transporting, and disposing of hazardous waste shall comply with regulations under 22 CCR, including providing and completing the Uniform Hazardous Waste Manifest Form

4. Follow applicable regulations under 40 CFR Part 263, and 22 CCR Section 66263, "Standards Applicable to Transporters of Hazardous Waste," including licensing, manifest system, record keeping, and discharges.

5. All material classified as hazardous waste (Federal Class I RCRA and California Class II non-RCRA wastes) shall be hauled off using a licensed hazardous waste transporter and the Uniform Hazardous Waste Manifest form .

6. The Contractor shall provide and prepare the waste manifests profiles for each shipment of hazardous wastes from the site. The Contractor is hereby notified that hazardous waste manifest and/or waste profiling and/or landfill service agreements have to be prepared and have to be approved by the landfill in advance of the off-haul. The Contractor shall

consult with the City Representative for SFPUC requirements in filling out the forms.

7. Preparation and handling of waste manifests

   a. Prepare the waste manifests and landfill profiles for each shipment of hazardous wastes from the site. Hazardous waste manifest and/or waste profiling and/or landfill service agreements shall be approved by the landfill owner or operator in advance of the off-haul. Consult with the City Representative for local requirements in filling out the forms.

      1) The manifest shall describe the contents of each truck carrying materials to the waste disposal site, including the weight of the waste materials. Weight, not volume, shall be used to measure waste quantities.

      2) The City Representative will provide a hazardous waste generator identification number for use on the manifest.

      3) The Contractor shall provide the State Transporter Identification (ID) and phone numbers. The licensed transporter shall also sign and date the manifest indicating that he/she has accepted the load described in the manifest on that particular day.

      4) Only a City employee (and not the Contractor) shall sign the manifest for the "generator" of the waste.

   b. Notify the City Representative 72 hours prior to off-haul of all excavated material. Off-haul shall occur between the hours of 8:00 a.m. and 4:30 p.m. Monday through Friday (excluding City holidays). If the manifest and other forms above are to be signed by the City Representative during periods other than the hours stipulated above, the Contractor should give an additional 72-hour advance notice to the City Representative.

   c. The City Representative will sign and keep the Generator's copy (yellow) and the DTSC copy (blue) of the manifest and give the remaining copies to the licensed transporter.

   d. The licensed transporter shall carry the hazardous waste manifest with each truckload.

   e. Within 2 days of its return, provide the City Representative with the completed waste manifest. The completed waste manifest shall be certified by the receiver of the waste shipment, confirming that the shipment was received at the waste treatment or disposal facility designated in the Contractor's bid, and certifying the weight of the shipment.

   f. Should any waste manifest not be returned within 35 days of shipment, Contractor shall initiate follow-up, and shall document

such follow-up effort in writing with an Exception Report in accordance with 40 CFR 262.42 and/or 22 CCR 66262.42, and shall provide a copy to the City Representative.

8. Mandatory City Information for the Manifest

a. The Generator's US EPA ID Number for this Project is ***[Perfectus insert field: Project Engineer to provide this number]***

b. Emergency response Phone: # ***[Perfectus insert field: Project Engineer to List PM's phone #]***

c. Generator's Name and Mailing Address:

Perfectus Insert field: This is the office that files all the manifests generated from Public Works projects. Replace the mailing address as appropriate:

City and County of San Francisco
Department of Public Health/BEHM
49 South Van Ness Ave.., Suite 600
San Francisco, CA 94103

d. Generator's Site Address

Perfectus insert field; Project Engineer to insert the physical address of the project.

The following information is mandatory:

City and County of San Francisco
City Facility/Site generation location: Project Name
Project # :
Poject Manager:
Project Manager Phone Number:
Profile # :

e. Manifest Item B: The State Generators ID – Board of Equalization ("BOE") Number for this Project is ***[Perfectus insert field]***

f. Manifest Item J: ***If applicable, include the following statement for soil disposal in Item J:***

"The City applies for an exemption from the BOE Land Disposal Generator fees as per H&SC 25174.7, 25174.1, 25205.5 and 25345. The soils were excavated from beneath a public street."

C. NON-HAZARDOUS WASTE (CLASS II OR LESSER) DISPOSAL

1. The Contractor shall furnish all labor, materials, equipment, and incidentals required to transport those materials identified as non-hazardous waste for the purpose of disposal.

2. The contractor shall prepare and submit waste characterization and profiling information documenting the non-hazardous nature of this category of waste. Provide this in accordance with Section 01 33 00 – Submittal Procedures.

3. By the end of the workday, the Contractor shall provide and prepare for the City Representative, bills of lading for each vehicle, for all excavated material loads classified as non-hazardous waste (California Class II or lesser), for the purpose of off-site transportation and disposal purposes. The bill of lading shall be designed to contain the following information:

   a. Name, address and phone number of the transport company

   b. Name of the driver, a dated signature from the driver, vehicle license number, trip number.

   c. Weight as recorded at the landfill of waste excavated material.

   d. Date of transport.

   e. Original location of the excavated material (street location and cross streets).

   f. Name, address and phone number of the receiving facility i.e., disposal facility. A dated signature from the receiving facility.

   g. Name, address and phone number of the generator, along with the Contract No. and Project name.

   h. A copy of each bill of lading and a certified weight ticket is an indication of the weight of the shipment, which has been received at the disposal facility. The Contractor shall furnish such information to the City Representative so payment can be made as per specification.

   i. The transporter shall sign and date the bill of lading indicating that they accepted the load described in the bill of lading on that particular day for that particular trip.

D. UNIVERSAL WASTE DISPOSAL

1. The following universal wastes are subject to specific disposal procedures under 22 CCR 66273.10 through 66273.21:

   a. Batteries, as described in section 66273.2, subsection (a)

   b. Electronic devices, as described in section 66273.3, subsection (a)

   c. Mercury-containing equipment, as described in section 66273.4, subsection (a)

   d. Lamps, as described in section 66273.5, subsection (a) (including, but not limited to, M003 wastes)

   e. Cathode ray tubes, as described in section 66273.6, subsection (a)

f. Cathode ray tube glass, as described in section 66273.7, subsection (a)

g. Aerosol cans, as specified in Health and Safety Code section 25201.16

2. Universal Wastes shall be segregated and shipped for disposal following DOT shipping requirements in 49 CFR 171 through 180.

3. Universal Wastes can be shipped using a bill of lading to a Universal Waste Handler licensed under the requirements of 22 CCR 66273.

E. ASBESTOS WASTE DISPOSAL

1. A waste that is friable and contains asbestos over 1 percent is regulated as a California (Non-RCRA) hazardous waste under 22 CCR 66261.24. The Contractor shall characterize and profile asbestos-containing waste to determine its correct waste disposal classification.

2. The following requirements apply to transportation and disposal of asbestos hazardous waste:

a. Packaging in sealed, leak-tight, non-returnable containers from which the fibers cannot escape following 40 CFR 61.150 or, in order to prevent breakage of larger items, in bulk containers lined with plastic sheeting and covered it with a tarp following 22 CCR 66263.23.

b. Labeling of the asbestos hazardous wastes will follow 29 C.F.R. 1910.1001, 29 CFR 1926.1101, and 8 CCR 5208.

c. Asbestos hazardous wastes shall be shipped using a registered hazardous waste hauler to landfills permitted to accept asbestos wastes.

d. Contractor shall prepare and submit to the City Representative a Uniform Hazardous Waste Manifest Form for asbestos hazardous waste shipments.

F. OTHER WASTE DISPOSAL

1. ***[Manual insert field –if other specific wastes are anticipated insert procedures here]***

END OF SECTION

SECTION 01 35 48

ADDITIONAL CLEAN CONSTRUCTION REQUIREMENTS ON MAJOR CONSTRUCTION PROJECTS

PART 1 – GENERAL

1.01 SUMMARY

A. This Section 01 35 48 incorporates additional requirements of the San Francisco Clean Construction Ordinance ("Ordinance") for projects that meet the requirements of Environment Code Section 2504(a), which are located in the Air Pollutant Exposure Zone (refer to Exhibit A, below) and which are within 1,000 feet of a Sensitive Use, as set forth in Chapter 25 of the Environment Code and Section 6.25 of the Administrative Code.

B. For projects that meet Environment Code Section 2504(b), which are located outside the Air Pollutant Exposure Zone, or which are in the Air Pollutant Exposure Zone but are not within 1,000 feet of a Sensitive Use, refer to Section 00 73 73, Article "CLEAN CONSTRUCTION REQUIREMENTS ON MAJOR CONSTRUCTION PROJECTS."

C. The Department of the Environment is responsible for administering the Ordinance. For more information about the Ordinance and its implementation, please visit the Department of Public Health website at: https://www.sfdph.org/dph/EH/Air/CleanConstruction.asp and https://www.sfdph.org/dph/files/EHSdocs/AirQuality/San_Francisco_Clean_Construction_Ordinance_2015.pdf. The map provided in Exhibit A (Section 01 35 48/EXA) shall govern over the older Air Pollutant Exposure Zone maps available at www.sfdph.org.

1.02 DEFINITIONS

A. "Air Pollutant Exposure Zone" means a zone having a substantially greater than average concentration of air pollutants as defined in Health Code Section 3804.

B. "Alternative Fuels" means any transportation fuel that is less polluting than gasoline or petroleum diesel fuel, as determined by the California Air Resource Board and that is shown to have lower lifecycle carbon emissions than gasoline or petroleum diesel. Alternative Fuels may include, but are not limited to: natural gas; propane; biofuels from low carbon, sustainable and preferably local sources; hydrogen produced from low carbon and/or renewable sources; and electricity.

C. "Alternative Sources of Power" means utility-based electric power or other power sources other than diesel engines.

D. "ARB" means the California Air Resources Board.

E. "Clean Construction" means the performance of all work required to be performed under a Public Works contract meeting the requirements in Sections 2504, 2505 and 2506 of the Environment Code, as applicable.

F. "Construction" means building, demolition, excavation, grading or foundation work, whether or not the work requires a City permit.

G. "Construction Activities" means the performance of all work involved in or required for Construction, except for the issuance or obtaining of a site permit for a project.

H. "Construction Phase" means a particular construction activity over a certain period of time. Construction phases may include, but are not limited to, demolition, site preparation, grading, building construction, architectural coatings, and paving. Multiple Construction Phases of a single project may take place at the same time.

I. "Equipment" means off-road and on-road equipment.

J. "Equipment Type" means a category of off-road equipment. Types of off-road equipment include bore/drill rigs, cranes, crawler tractors, excavators, graders, off-highway tractors, off-highway trucks, other construction equipment, pavers, paving equipment, rollers, rough terrain forklifts, rubber-tired dozers, rubber-tired loaders, scrapers, skid steer loaders, surfacing equipment, tractors/loaders/backhoes, and trenchers.

K. "Major Construction Project" means a public work to be performed within the geographic limits of the City that uses off-road equipment and that is estimated to require 20 or more cumulative days of work, including non-consecutive days, to complete.

L. "Most Effective Verified Diesel Emission Control Strategy" means a device, system or strategy that is verified, pursuant to Division 3, Chapter 14, of Title 13 of the California Code of Regulations, to achieve the highest level of pollution control tram an off-road vehicle.

M. "Off-Road Engine" means a non-road engine as defined in Title 40 of the Code of Federal Regulations, Section 89.2.

N. "Off-Road Equipment" means equipment with an off-road engine having greater than 25 horsepower and operating for more than 20 total hours over the entire duration of Construction Activities.

O. "On-Road Equipment" means a heavy-duty vehicle as defined in Title 40 of the Code of Federal Regulations, Section 86.1803-01.

P. "Portable Diesel Engine" means a diesel engine that is portable as defined in 71 California Code of Regulations, Section 93116.2(bb).

Q. "Sensitive Use" means a category of building use identified as a "Sensitive Use" in Health Code Section 3804.

R. "Tier 2 Off-Road Emission Standards" means the Tier 2 new engine emission standards in Title 13, California Code of Regulations, Section 2423(b)(1)(A) and/or Title 40, Code of Federal Regulations, Part 89.112(a).

S. "VDECS" means a verified diesel emission control strategy, designed primarily for the reduction of diesel particulate matter emissions, which has been verified by ARB pursuant to "Verification Procedures, Warranty and In-Use Strategies to Control Emissions from Diesel Engines," Title 13, California Code of Regulations, Sections 2700-2710. VDECS can be verified to achieve Level 1 diesel particulate matter reductions (at least 25 percent), Level 2 diesel particulate matter reductions (at least 50 percent), or Level 3 diesel particulate matter reductions (at least 85 percent).

1.03 SUBMITTALS

A. Construction Emissions Minimization Plan:

1. Contractor shall submit its initial Construction Emissions Minimization Plan no less than 28 days prior to mobilization. (See Subsection 1.04B.)

2. Contractor shall submit an updated Construction Emissions Plan on a quarterly basis in compliance with Subsection 1.04B.5.a, and submit each quarterly report within seven business days of the end of each quarter.

3. Contractor shall submit a final Construction Emissions Minimization Plan report summarizing construction activities within two weeks of achieving Substantial Completion in compliance with Subsection 1.04B.5.b.

B. Clean Construction Emissions Plan Certification Statement: Contractor shall submit this statement with its Construction Emissions Minimization Plan. (See Subsection 1.04B.3.)

C. Waiver Request: Contractor shall submit a waiver request to the Department Head no less than two weeks prior to the planned use of a specific piece of off-road equipment. (See Subsection 1.05A.)

1.04 REQUIREMENTS FOR MAJOR CONSTRUCTION PROJECTS WITHIN THE AIR POLLUTANT EXPOSURE ZONE

A. For all Major Construction Projects that meet the requirements of Environment Code Section 2504(a) and which are located in the Air Pollutant Exposure Zone and within 1,000 feet of a Sensitive Use, the following requirements apply:

1. All off-road equipment shall have engines that (a) meet or exceed either United States Environmental Protection Agency or ARB Tier 2 off-road emission standards, and (b) have been retrofitted with an ARB Level 3 VDECS. Equipment with engines meeting Tier 4 Interim or Tier 4 Final off- road emission standards automatically meet this requirement. See Section 1.05A regarding the procedure for requesting a waiver to this requirement.

2. Where access to alternative sources of power is available, use of portable diesel engines to perform work on the project shall be prohibited. See Section 1.05B regarding the waiver procedure for this requirement.

3. Diesel engines, whether for off-road or on-road equipment, shall not be left idling for more than two minutes at any location, except as allowed for in applicable state regulations regarding idling for off-road and on-road equipment (e.g., traffic conditions, safe operating conditions). The Contractor shall post legible and visible signs, in English, Spanish, and Chinese, in designated queuing areas and at the construction site to remind operators of the idling limit. Refer to the following link for the Clean Construction Sign Template: https://www.sfdph.org/dph/EH/Air/CleanConstruction.asp.

4. The Contractor shall instruct construction workers and equipment operators on the maintenance and tuning of construction equipment, and require that such workers and operators properly maintain and tune equipment in accordance with manufacturer specifications.

B. Construction Emissions Minimization Plan: All Major Construction Projects that meet the requirements of Environment Code Section 2504(a), which are located in the Air Pollutant Exposure Zone and are within 1,000 feet of a Sensitive Use, also must comply with the following requirements:

1. Before starting on-site Construction Activities, the Contractor shall submit a Construction Emissions Minimization Plan ("Emissions Plan") to the City Representative for review and approval. The Emissions Plan shall state, in reasonable detail, how the Contractor will meet the requirements of Section 2505 of the Environment Code.

2. The Emissions Plan shall include estimates of the construction timeline by phase, with a description of each piece of off-road equipment required for each Construction Phase.

   a. The description may include, but is not limited to: equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation.

   b. For the VDECS installed, the description may include, but is not limited to: technology type, serial number, make, model, manufacturer, ARB verification number level, and installation date and hour meter reading on installation date.

   c. For off-road equipment using alternative fuels, the description shall also specify the type of alternative fuel.

   d. Contractor may use the Clean Construction Equipment Inventory Template to satisfy the Emissions Plan requirements. Refer to the following link for that template: https://www.sfdph.org/dph/EH/Air/CleanConstruction.asp.

3. The Contractor agrees to comply fully with the Emissions Plan and acknowledges that a significant violation of the Emissions Plan shall constitute a material breach of the Agreement. Contractor must submit a signed Clean Construction Emissions Plan Certification Statement to the City Representative. Refer to the following link for the Emissions Plan Certification Statement Template: https://www.sfdph.org/dph/EH/Air/CleanConstruction.asp.

4. After City review and approval, the Contractor shall make the Emissions Plan available to the public for review onsite during working hours.

   a. The Contractor shall post at the construction site a legible and visible sign summarizing the Emissions Plan. Refer to the following link for the Clean Construction Sign Template: https://www.sfdph.org/dph/EH/Air/CleanConstruction.asp.

   b. The sign shall also state that the public may ask to inspect the Emissions Plan for the project at any time during working hours, and shall explain how to request to inspect the Emissions Plan.

   c. The Contractor shall post at least one copy of the sign in a visible location on each side of the construction site facing a public right-of-way.

5. Reporting:

   a. After Construction Activities begin, the Contractor shall update the Emissions Plan on a quarterly basis documenting changes from the original plan and demonstrating compliance with the Emissions

Plan. The report shall be submitted to the City Representative quarterly and a copy shall also be maintained at the construction site.

b. Prior to receiving a Notice of Final Completion, or within six months of completion of Construction Activities if a final certificate of acceptance is not required, the Contractor shall submit to the City Representative a final report summarizing Construction Activities, including the start and end dates and duration of each Construction Phase, and the specific information required in the Emissions Plan.

1.05 WAIVERS

A. Waivers Under Subsection 1.04A.

1. The Contractor may request to waive the equipment requirements of Paragraph 1.04A.1 if: (a) a particular piece of off-road equipment with an ARB Level 3 VDECS is technically not feasible; (b) the equipment would not produce desired emissions reduction due to expected operating modes; (c) installation of the equipment would create a safety hazard or impaired visibility for the operator; or, (d) there is a compelling emergency need to use off-road equipment that is not retrofitted with an ARB Level 3 VDECS.

2. Contractor shall submit a waiver request to the Department Head, or designee, no less than two weeks prior to the planned use of a specific piece of off-road equipment.

3. If the Department Head, or designee, grants the waiver specified in Section 1.05A.1, the Contractor must use the next cleanest piece of off-road equipment, according to Table 1, below.

Table 1 **Off-Road Equipment Compliance Step Down Schedule***		
Compliance Alternative	**Engine Emission Standard**	**Emissions Control**
1	Tier 2	ARB Level 2 VDECS
2	Tier 2	ARB Level 1 VDECS
3	Tier 2	Alternative Fuel**
* If the City determines that the equipment requirements cannot be met, the Contractor must meet Compliance Alternative 1. If the City determines that the Contractor cannot supply off-road equipment meeting Compliance Alternative 1, then the Contractor must meet Compliance Alternative 2. If the City determines that the Contractor cannot supply off-road equipment meeting Compliance Alternative 2, then the Contractor must meet Compliance Alternative 3.		
** Alternative fuels are not a VDECS		

B. Waivers Under Subsection 1.04A.2.

1. The Department Head, or designee, may waive the alternative source of power requirement set forth in Subsection 1.04A.2 if an alternative source of power is limited or infeasible at the project site. If the City grants the waiver, the Contractor must submit documentation that the equipment used for onsite power generation meets the requirements of Subsection 1.04A.1, above.

C. All Other Waivers: The Department Head or designee also may waive the requirements of the Ordinance on the grounds set forth in Section 2507 of the Environment Code.

D. For any waiver granted in this Subsection 1.05, the City Representative will within two business days prepare a written notice of the waiver and a written memorandum explaining the basis for the waiver and the steps that will be taken to safeguard public and City employee health during the noncomplying work. The memorandum will also state the steps that the City and the Contractor will take to minimize the use of noncomplying equipment or engines during the noncomplying work.

1.06 NONCOMPLIANCE AND PENALTIES

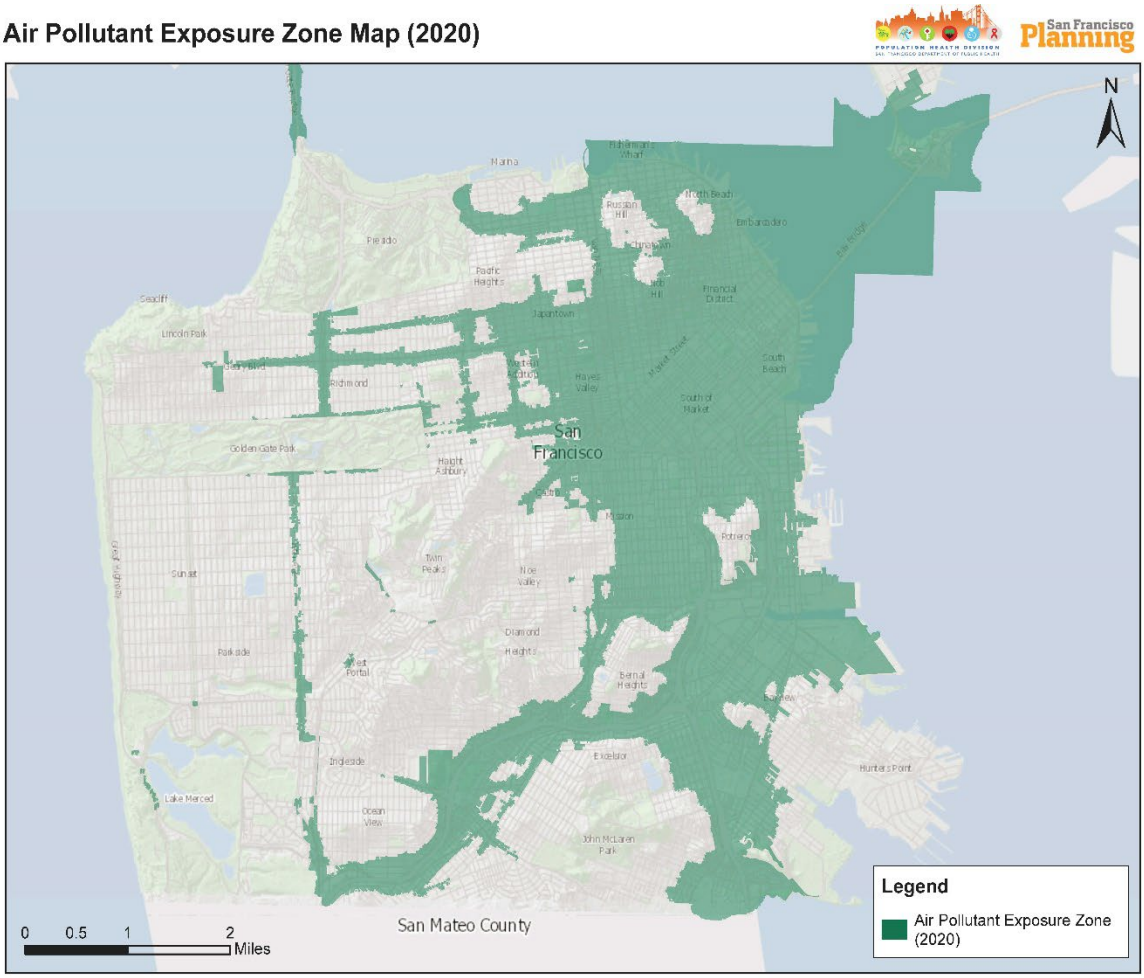
A. Liquidated Damages: By entering into the Agreement, Contractor and City agree that if Contractor uses off-road equipment and/or off-road engines in violation of the Clean Construction requirements set forth in Administrative Code Section 6.25 and Chapter 25 of the Environment Code, the City will suffer actual damages that will be impractical or extremely difficult to determine.

Accordingly, Contractor and the City agree that Contractor shall pay the City the amount of $100 per day per each piece of off-road equipment and each off-road engine used to complete Work on the Project in violation of the Ordinance. Such amount shall not be considered a penalty, but rather agreed monetary damages sustained by City because of Contractor's failure to comply with the Clean Construction requirements.

B. False Representations: False representations by the Contractor, in connection with the bidding, execution or performance of any City contract, regarding the nature or character of the off-road equipment and/or off-road engines to be utilized, on the contract, or to the City about the nature or character of the off-road equipment and/or off-road engines actually used may subject the Contractor to the consequences of noncompliance specified in Section 2510 of the Environment Code, including but not limited to the penalties prescribed therein. The assessment of penalties for noncompliance shall not preclude the City from exercising any other rights or remedies to which it is entitled.

END OF SECTION

EXHIBIT A: AIR POLLUTANT EXPOSURE ZONE MAP



Note: A high resolution version of this map is available at the following link:
https://sfpuc.sharefile.com/d-s0151a012ab314f9eaef04fe9c792d6d8

SECTION 01 41 00

REGULATORY REQUIREMENTS

PART 1 – GENERAL

1.01 SUMMARY

A. This Section includes requirements for: Codes, Seismic Loading Design Provisions, and Trench Support Design Provisions.

B. Related Documents and Sections include:

1. Section 00 73 00 – Supplementary Conditions
2. Section 01 35 43 – Environmental Procedures
3. Section 01 33 00 – Submittal Procedures

1.02 CODES:

A. Contractor shall conform all work of the Contract to meet or exceed the applicable requirements of the latest editions of the applicable codes, laws, ordinances, standards, rules and regulations, including, but not limited to the following:

1. CCR Title 8, Industrial Relations
2. CCR Title 17, Public Health
3. CCR Title 19, Public Safety
4. CCR Title 24, Building Standards
   a. Part 1, California Building Standards Administrative Code
   b. Part 2, California Building Code
   c. Part 3, California Electrical Code
   d. Part 4, California Mechanical Code
   e. Part 5, California Plumbing Code
   f. Part 6, California Energy Code
   g. Part 7, NOT USED
   h. Part 8, California Historic Building Code
   i. Part 9, California Fire Code

j. Part 10, California Existing Building Code

k. Part 11, California Green Building Standard Code

l. Part 12, California Reference Standards Code

5. Americans with Disabilities Act Guidelines

6. AWWA C651-92, Standard for Disinfecting Water Mains

B. Except where noted, the most recent editions of Codes, Standards, and Regulations at the time of the Contract shall apply. Whenever reference is made to "Caltrans Standard Specifications," it shall be understood to be the most recent edition of the State of California, Department of Transportation, Standard Specifications.

C. Other Applicable Laws and Regulations: All applicable federal, state, and local laws, and the latest rules and regulations of governing utility districts and the various other authorities having jurisdiction over construction and completion of the work, including but not limited to Cal-OSHA and California Labor Code, shall apply to the Contract throughout, and they shall be deemed to be incorporated by reference.

D. Obtain copies of codes and reference standards when required by the Contract Documents.

E. The codes referred to shall have full force and effect as though printed in these Specifications. Nothing in the Contract Documents shall be construed to permit work not conforming to the governing code requirements.

1.03 PROJECT-SPECIFIC REQUIREMENTS

A. ***Not Used***.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 41 15

EXCAVATION PERMIT REQUIREMENTS

NOTE: Although Statutory and Other Requirements Section 00 73 73 includes limited statutory information that was readily available at the time that it was drafted, the Project Manager is responsible for verifying any and all prevailing permit requirements governing excavation and related subjects with the local Authority having jurisdiction, and for revising this Specification accordingly.

PART 1 – GENERAL

1.01 SUMMARY

A. This Specification Section covers the following:

1. The requirement for the Contractor to obtain and abide by an excavation permit for Work in San Francisco

2. Subsurface and pavement repair requirements during the warranty period

B. Related Documents and Sections include:

1. Section 00 72 00

1.02 APPLICABLE CODES AND STANDARDS

A. Article 2.4 of the Public Works Code, "Excavation in the Public Right-of-Way"

B. DPW ORDER No. 187005, "Regulations for Excavating and Restoring Streets in San Francisco"

C. Cal/OSHA regulations

D. Requirements of applicable permitting agencies having jurisdiction in the area of the Work (e.g., fill and grading permits, encroachment permits, etc.)

1.03 PROJECT-SPECIFIC REQUIREMENTS

A. ***[Manual insert field – Project Engineer input (if any) to cover only those issues related to excavation that are not already adequately addressed, either within this Baseline Specification , or in General Conditions Section 00 72 00.]***

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.01 EXCAVATION PERMIT – APPLICATION AND APPROVAL

A. Contractor is responsible for obtaining, paying for and abiding by the excavation permit for the contract.

B. For Work in San Francisco, submit the application for Excavation Permit (http://www.sfpublicworks.org/services/permits/application-forms) to:

Bureau of Street Use & Mapping ("BSM"),
S.F. Public Works, Street Construction Coordination Center
49 South Van Ness Avenue, Suite 300
San Francisco, CA 94103
Phone (628) 271-2000
BSMPermitdivision@sfdpw.org

Contractor shall contact BSM for status of approval of the application for the Excavation Permit

C. For emergency Excavation, the Contractor can start construction work prior to receiving an approved Excavation Permit as directed by the City Representative, but the Contractor shall apply for the excavation permit concurrently during the first working day of construction or as soon as possible.

3.02 POST-EXCAVATION REPAIR AND MAINTENANCE OBLIGATION OF CONTRACTOR (WARRANTY PERIOD)

A. Contractor shall be responsible for maintaining, repairing or reconstructing the site of the Excavation so as to sustain a condition acceptable to the City for a period of 3 years following the date of acceptance of the work.

3.03 SUBSURFACE OR PAVEMENT FAILURES

A. In the event that subsurface material or pavement over or adjacent to any excavation should become depressed, broken, or fail in any way within the warranty period after the Excavation has been completed, the Contractor will be responsible for the failure in the subsurface or surface of the Public Right-of-Way. The Contractor will be notified by the City of the condition, its location, and the required remedy; the Contractor shall repair or restore, or cause to be repaired or restored, to original or better condition to the satisfaction of the City Representative within 72 hours of the notification with no additional costs to the City. The time allowed for the Contractor to repair or restore the affected Public Right-of-Way may be extended by the City at the request of the Contractor and as approved by the City Representative.

3.04 REPAIR BY THE CITY

A. In the event that the Contractor fails, neglects, or refuses to repair or restore any condition pursuant to the City's notice as set forth in Section 2.4.71 of the Public Works Code, the City may repair or restore, or cause to be repaired or restored, such condition in such manner as deemed expedient and appropriate. The Contractor shall compensate the City for any costs associated with the administration, construction, consultants, equipment, inspection, notification, remediation, repair, restoration, or any other actual costs incurred by the City that were made necessary by reason of the repair or restoration undertaken by the Department. The City's determination as to the cost of the repair or restoration performed shall be final. In addition, the Contractor may be subject to those enforcement actions set forth in Sub-article VII of the Public Works Code.

B. Subject to the limitation set forth in Section 2.4.70 of the Public Works Code, repair or restoration by the City in accordance with this Section shall not relieve the Contractor from liability for future pavement failures at the site of the repair or restoration.

3.05 REGULATORY AGENCY AND PERMIT COMPLIANCE

A. Contractor shall comply with excavation, fill and grading requirements of all permits and as described in Division 02 of the Contract Specifications. All excavation work shall be performed in accordance with Federal and Cal/OSHA requirements.

END OF SECTION

Standard Specifications for the Installation of Ductile Iron Water Mains 16-Inches and Smaller

SECTION 01 41 28

PROTECTION OF EXISTING WATER AND AWSS FACILITIES

PART 1 – GENERAL

1.01 DESCRIPTION

A. Contractors performing excavation adjacent to or below the San Francisco Public Utilities Commission's (SFPUC) Potable Water (PW), Recycled Water (RW), and Auxiliary Water Supply System (AWSS) facilities to protect those facilities throughout the duration of their respective projects. Contractor will be held responsible for any damage related to or caused by failure to exercise due care. Repair of existing utilities and improvements damaged during construction shall be at the Contractor's expense.

B. Contractor shall be required to prepare or obtain settlement monitoring plans, approved by SFPUC – City Distribution Division (CDD) Engineering Section, prior to performing work adjacent to or around SFPUC's AWSS System when required as specified hereinafter. If contractor is unable to prepare Settlement Monitoring Plans, contractor may request plans be prepared, at Contractors Expense, by making the request in writing via email to. cddengineering@sfwater.org

C. The Contractor shall furnish, install and remove upon completion of the work, Settlement Reference Points (SRPs) and Settlement Monitoring Points (SMPs) for the SFPUC AWSS piping as shown on the settlement monitoring plan and conduct the survey of SRPs and SMPs as specified hereinafter.

D. The Contractor shall perform all required work as stated in this specification section and as shown on the Drawing(s) and furnish all materials, other than those specified to be furnished by the City, which are necessary or required to complete the work.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Not used.

1.03 RECORD DRAWINGS AND STANDARDS

Records of the existing PW, RW, and AWSS facilities and Standard requirements are available for examination by bidders/awarded Contractor upon request by emailing cddengineering@sfwater.org.

Contractors are warned that changes which do not appear in the records for existing CDD facilities may have been made. The City makes no representation as to the completeness or accuracy of said records and assumes no responsibility thereto.

1.04 DEFINITIONS

A. Maximum Allowable Settlement: Level at which no further movement will be acceptable and if reached requires work to be halted until submittal and acceptance of a written plan detailing corrective actions and restorative measures.

B. Response Values: Predetermined values within the instrument range indicating different levels of response as specified herein.

C. Settlement Monitoring Point: A system of points along the alignment of the AWSS for monitoring vertical deformation (settlement or heave) at or near the ground surface using optical survey techniques.

D. Settlement Reference Point: A stable, fixed control point established at a surface structure above ground that is referenced during settlement monitoring point measurements to permit calculation of vertical movements.

1.05 REFERENCES

A. AWSS Standard Plans

Drawing No.	Title
CDD-HP-401	AWSS Settlement Point For Bell & Spigot Pipe
CDD-HP-402	AWSS Settlement Point for Double Spigot Pipe

B. AWSS Settlement Monitoring Drawings in the Contract showing approximate locations of settlement monitoring and reference points.

C. State of California Labor Code, Section 6705 and 6707.

D. State of California Construction Safety Orders, Article 6 – Excavation.

1.06 SUBMITTALS

Submit the following to City Representative for review and acceptance. Work shall not start until acceptance of submittals:

A. Work plan, support details, and calculations.

1. Work Plan for working around existing PW, RW, and AWSS facilities within the influence zone of the excavation. The plan shall show the locations of proposed facilities, existing utilities and pipelines, proposed pipe supports for SFPUC-CDD facilities, pipe storage, spoil bank, excavation and pipe laying equipment, shoring system, and a description of how the work will proceed around the existing SFPUC-CDD facilities. Provide drawings that include dimensions to allow determining the distances of objects relative to the SFPUC-CDD facilities. Sizes of existing and proposed facilities, width and depth of proposed trench, and any other pertinent information must be shown in the drawings. For proposed structural facilities, such as retaining walls and tie back walls, potentially impacting CDD facilities, submit elevation and or section views showing horizontal and vertical locations of CDD facilities relative to the proposed structure.

2. Where supports are required per this specification, submit support details and calculations, signed and stamped by a California licensed Civil or Structural Engineer, for structural support for the protection of exposed and/or undermined sections of SFPUC-CDD pipe or facilities. At the discretion of SFPUC-CDD Engineering, revised support details and calculations may be required to be submitted if conditions vary significantly following excavation.

3. Submit minimum twenty-one (21) calendar days before planned excavation.

B. Control Density Fill (CDF) mix design where CDF is required per this Specification. Submit certified laboratory test results within the past 1-year that the mix proportions and materials comply with these Specifications.

C. Survey of Settlement Reference and Monitoring Points data: The Contractor shall submit elevations of all SMPs and SRPs (to be provided in “feet”) by a State of California licensed Land Surveyor in addition to deflection calculations for each pipe joint.

Data and calculations shall be submitted once prior to the start of construction, once a week during construction, once at the end of construction and final survey is completed, and when threshold values are exceeded as specified below. Pipe deflection angles and elevation readings calculated from SMPs and SRPs are to be tabulated in chronological order with all previous results for review and approval within 24 hours of the survey being performed.

PART 2 – PRODUCTS

2.01 CONTROLLED DENSITY FILL

A. Materials shall conform to the following.

1. Cement: ASTM C150, Type II or V.

2. Aggregate: ASTM C33. Aggregate shall consist of fine aggregate with a maximum size of 1/4", free of clay, organics, and other deleterious materials. Less than 10 percent by weight shall pass the No. 200 sieve, and material passing the No. 40 sieve shall be non-plastic as determined in accordance with ASTM D4318.

3. Water: Potable.

4. Pozzolans: ASTM C618, Class C fly ash. Class F fly ash and slag is not permitted.

5. Air entraining: ASTM C260. Air content shall not exceed 25 percent.

6. Admixtures: Shall not contain chloride ions and shall not cause delayed strength gain.

B. Mixes:

1. Performance requirement: proportioned to be free-flowing, self-consolidating, hand tool excavatable, low-shrink slurry.

2. Mix design requirement: The Contractor and its supplier shall determine the materials and proportions used to meet the requirements of the Specifications.

3. Strength: Unconfined compressive strength at 28 days shall be less than 100 psi tested per ASTM D 4832.

4. Flowability: 6 to 9 inches when tested per ASTM C-143 or ASTM D 6103.

5. Cementitious Material: Portland Cement. Where pozzolans are used, pozzolans shall be limited to maximum 60% of the weight of cement.

2.02 AWSS SETTLEMENT REFERENCE AND MONITORING POINTS

A. AWSS Settlement Reference and Monitoring Well Covers:

6-inch valve cover, H-20 load rated, cover similar to the San Francisco Water Department's 6-inch gate valve cover.

B. Required survey monitoring of AWSS facilities outside of trenches and/or excavations:

1. Refer to the AWSS Settlement Monitoring Drawing(s) for the location of SMPs to be installed as part of the contract work; and

2. For trench/excavation crossing AWSS, the SMPs shall be located starting on the closest pipe bell near the edge of the trench and/or excavation and installed outward away from the trench and/or excavation; and

3. Rod, guide pipe, and monitoring well shall be per Drawings CDD-HP401 and CDD-HP-402, which are available for download at https://sfpuc.org/sites/default/files/documents/CDD_StandardPlans_2020.pdf.

C. Required monitoring of AWSS facilities inside of trenches and/or excavations:

1. Exposed AWSS pipe joints in trenches and/or excavations shall be identified as a SMP regardless of whether the joint is called out on the AWSS Settlement Monitoring Drawing(s) to be surveyed and monitored. Field verification of the exact location shall be required and approved by SFPUC-CDD Engineering.

2. Additional SMPs within trenches and/or excavations may be necessary on either or both sides of the AWSS joint to distinguish the difference between vertical displacement and joint deflection.

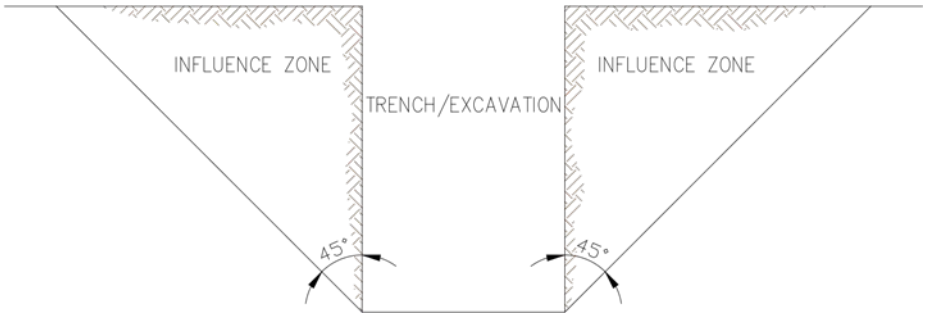
D. Placement of SRP(s) for survey monitoring of SMPs:

1. A settlement reference point shall be designated by a marking on a hydrant or other stable, permanent fixture located within the public right of-way. The same location shall be surveyed for reference over the course of the project. Refer to the AWSS Settlement Monitoring Drawing(s) for the location of SRP(s) to be installed as part of the survey monitoring work.

PART 3 – EXECUTION

3.01 SUPPORT AND REPLACEMENT OF EXISTING PW, RW, AND AWSS FACILITIES WITHIN THE INFLUENCE ZONE

A. Inspection, Review and Approval of Methods



1. The influence zone is defined as the trench/excavation and the 45 degree soil wedge on the sides of the excavation as shown in the figure above. The Contractor shall contact CDD Engineering prior to doing any work inside the influence zone.

2. If existing SFPUC-CDD facility, not shown on the drawing or is shown on the drawing outside of the influence zone, is found to be within the influence zone, the Contractor is required to contact CDD Engineering and request an inspection to review and approve the field methods being used and/or proposed for the protection of CDD facility.

3. If two or more consecutive SFPUC-CDD lead filled, cast-iron pipe joints are located within the trench/excavation, CDD requires replacement of the existing pipe with new ductile iron pipe with elastomeric EPDM joint gaskets within the influence zone.

4. Existing valves exposed in trench/excavation:

   a. If existing valve with lead filled joints is exposed within the trench/excavation, CDD requires replacement of the existing valve and cast-iron pipe with new ductile iron pipe with elastomeric EPDM joint gaskets within the influence zone.

   b. If existing valve with restrained elastomeric gasketed joints connecting to ductile-iron pipe is exposed within trench/excavation, pipe support requirement shall be the same as that for ductile-iron pipe as specified in the following requirement. If valve is not restrained, restraints shall be added by CDD at the project owner's cost.

5. Pipe supports are required where CDD pipe is exposed more than:
   a. 6 ft. for cast-iron pipe with no exposed joint.
   b. 3.5 ft. for cast-iron pipe with exposed joint.
   c. 10 ft. for ductile-iron pipe with no exposed joint.
   d. 6 ft. for ductile iron pipe with exposed joint(s).

6. Sheet pile driving adjacent to existing CDD pipe shall maintain a minimum clear spacing between back of sheet pile and edge of pipe of:
   a. 1.5 ft. for ductile iron pipes.
   b. 4 ft. for cast-iron pipes. If within 4 ft., settlement monitoring is required for both LPW and AWSS lines. Settlement monitoring of LPW lines shall be the same as for AWSS lines unless approved otherwise by CDD Engineering.

7. Main disconnection/reconnection for PW and RW shall be performed by SFPUC-CDD. Pipe, valve, fittings, hydrants, and all necessary work not stated to be performed by SFPUC-CDD shall be performed by the Contractor. Excavation, backfilling, paving, traffic control, permitting, and any other support work necessary for the PW and RW replacement work including work to be performed by SFPUC-CDD shall be the Contractor's responsibility. All AWSS replacement work shall be performed by Contractor or subcontractor qualified by CDD to perform AWSS main installation. All replacement valves and piping for CDD replacement is supplied by CDD.

8. Submit details and calculations for structural support for the protection of exposed and/or undermined sections of SFPUC-CDD facilities if required per this specification. Details and calculations shall be signed and stamped by a California licensed Civil or Structural Engineer. Structural supports shall be designed to protect (1) AWSS pipes constructed with Class H cast iron lead jointed pipe operating at 350 psi static pressure, (2) AWSS pipes constructed with Class 56 ductile iron pipe, (3) PW pipes constructed with Class B cast iron lead jointed pipe operating at 150 psi static pressure, and (4) PW or RW pipes constructed with Class 53 ductile iron pipe operating at 150 psi static pressure. Maximum deflection in pipe support members shall not exceed L/500, where L is the unsupported length of the member.

B. Restoration of Facilities

If project work exposes CDD facilities, the Contractor is required to

1. backfill and compact in compliance with San Francisco Department of Public Works (SFDPW) Street Excavation; and

2. perform soil compaction testing for backfill material placed within three (3) feet, horizontally or vertically, from the outside edge of a water facility, with all test results furnished to CDD Engineering.

For excavations that expose more than four (4) feet of CDD facilities or pipe joint (4-inch and smaller pipes are excluded), backfill is required to be constructed with control density fill (CDF) material.

CDF material shall begin at (3) feet below the CDD facility and continue up to the bottom of the CDD facility. CDF material shall not extend beyond the spring-line of any CDD facility. Width of CDF backfill shall be OD of CDD pipe + 1ft on each side. Compaction test must be performed on the backfill material below the CDD facility immediately before CDF placement.

3.02 INSTALLATION OF AWSS SETTLEMENT REFERENCE AND MONITORING POINTS AND SUPPORT OF PIPE

A. Installation

The SRPs and SMPs shall be installed prior to the start of construction work requiring excavation around AWSS pipe.

For SRPs at fire hydrants, the contractor shall select the top center of fire hydrant. The contractor must ensure that the exact same point is used to establish survey control prior to monitoring of SMPs and additional SRPs.

For installation of SMPs outside of trench/excavations, the Contractor shall expose the bell of the pipe so that the position of the guide pipe on the bell can be visually verified before backfilling. The installation method used shall not cause the guide pipe to move from its intended position.

For installation of SMPs inside of trench/excavations, the Contractor shall verify the leveling rod is positioned on top of the pipe by verifying the pipe crown with a level vial and marking the exact location on the pipe to ensure consistent monitoring of the same point.

The correct positioning of each SRP and SMP on the top of the pipe bell shall be verified and approved by a CDD Representative by visual inspection. To request an inspection by a CDD Representative, please contact CDD Engineering a minimum of five (5) business days in advance to schedule the inspection.

It is the responsibility of the Contractor to maintain all SRP and SMP installations in working order at all times.

B. Removal

The SMPs and SRPs shall be removed by the Contractor, including pipe guides, monitoring well frames and covers and the roadway restored to its original condition(s).

C. Survey of Settlement Reference and Monitoring Points

1. The Contractor shall obtain elevations of all SMPs and SRPs, by a State of California licensed Land Surveyor.

2. Initial Survey: Record the elevations within an accuracy of 0.005 feet (1/16-inch) for each settlement monitoring point on all surveys. After completion of each instrument installation, take 3 sets of verification data readings for each instrument to demonstrate the adequacy of the installation, to demonstrate the proper operation and precision of the instrument, and to establish an initial value. Differential Leveling and Total station accuracy shall comply with the accuracy standard specified in Caltrans Second Order Differential Leveling Specifications and Second Order (Vertical) TSSS Survey Specifications respectively. If differential leveling survey method is used, a collimation (Two-Peg) test shall be performed to ensure accuracy within 0.003 feet prior to each survey run. Submit the initial readings to the City Representative.

3. Monitoring Schedule: Take readings of all SMPs and SRPs prior to the start of construction, once after the construction work is completed on the city block and adjacent intersections, and a final time two weeks after all construction work is completed on the city block and adjacent intersections. Intermediate monitoring frequency during construction shall as a minimum comply with the following:

Monitoring Frequency During Sheet Pile Driving	**Monitoring Frequency During Excavation or Backfill**	**Monitoring Frequency in or Around Open Trench**	**Monitoring Frequency Away from Open Trench**
Daily[1]	Daily[2]	3 Days[3]	Once[4]

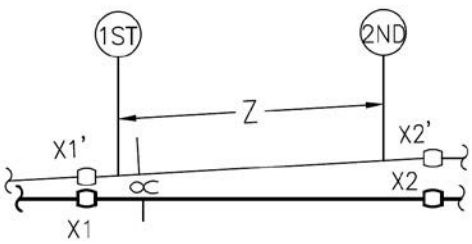
Notes:
1. For SMP's within 25 ft. of pile driving, monitor daily if pile installation using vibratory hammer and every four hours if pile installation using impact hammer.
2. Daily for SMPs within 25 ft. of a trench section being actively excavated or backfilled.
3. Once every three days for SMPs within 25 ft. of an open trench after excavation is completed and utilities are being installed.
4. Once after trench within 25 ft of SMP is completely backfilled unless directed otherwise by the City Representative.

4. Elevation readings from SMPs and SRPs are to be tabulated in chronological order with all previous results and sent to CDD Engineering within 24 hours of the survey being performed. Measurements shall be provided in "feet." Provide a plot of measured values versus time, including a time history of construction activity likely to influence such readings.

D. Response Values and Required Actions

1. The Maximum Allowable Settlement shall not result in any joint deflecting more than 1/4 degrees, where the deflection angle is calculated using this equation:

$$\alpha \; \mathrm{Tan}^{-1} \frac{(X1 - X1') - (X2 - X2')}{Z}$$



α = DEFLECTION ANGLE IN DEGREES
x1 = INITIAL READING OF 1ST SMP
x1' = CURRENT READING OF 1ST SMP
x2 = INITIAL READING OF 2ND SMP
x2' = CURRENT READING OF 2ND SMP
z = DISTANCE BETWEEN SMPs

2. The response values are measured as a percentage of the Maximum Allowable Settlement. The Contractor shall abide by the following Response Values.

Threshold Value	Contractor Response Value	Shutdown Value
50%	80%	100%

3. When a given response value is reached, the Contractor shall provide written notice within the specified time and respond in accordance with the following:

   a. Threshold Value: The Contractor shall provide written notice within 24 hours of occurrence and meet with the City Representative within 24 hours of providing notice to discuss his means and method to determine what corrective actions, if any, shall be made to better control ground movement. Instrument readings shall be required on a daily basis, unless instructed otherwise, until five consecutive working days of readings do not worsen the settlement by more than 5% of the Maximum Allowable.

   b. Contractor Response Value: The Contractor shall provide written notice and meet with the City Representative within 24 hours to discuss his means and method to determine what corrective actions shall be made to better control ground movement. The Contractor

shall actively control ground movement in accordance with the corrective actions to prevent reaching the Shutdown Value:

c. Shutdown Value: Contractor shall stop all work immediately in the vicinity of the AWSS facilities and provide written notice within one hour upon occurrence. The Contractor shall meet with the City Representative to develop a plan of action before the work can be resumed. A drop-test will be performed by CDD prior to continuation of work. If shutdown value is reached from surveys after completion of construction, a drop-test will be performed by CDD to determine if any repairs are required. Excavation, shoring, and restoration, if required, to expose affected AWSS facilities for visual inspection or repairs will be at the Contractor's expense.

E. Arrangement with Utility Companies

The Contractor shall make all necessary arrangements with the public service utility companies and obtain all necessary permits for any work or alteration of facilities as may be required due to the above described work.

F. Street and Sidewalk Restoration

Street and Sidewalk restoration shall include the replacement of traffic lane(s) and crosswalk stripes, parking stall markings, and curb painting that might be damaged during the installation/removal of the SRPs and SMPs construction. The Contractor shall perform preconstruction survey by photo and video to document the existing condition of Street and Sidewalk prior to doing any work in the area.

3.03 EXPOSE, TEST, AND REPAIR OF AWSS PIPES

A. Requirement of Repair Work

The Contractor is hereby notified that change in deflection of an AWSS pipe joint in exceedance of the shut-down value may require individual joint repairs or replacement of all the pipes adjacent to the SRPs (on each side of the surveyed joints) showing deflection at CDD's discretion.

If the CDD Representative determines that repairs are required, the Contractor will be responsible for preparing and restoring the site(s) for repairing the damaged joint(s). Repair of damaged joint(s) shall be done by CDD at Contractor's expense.

Site preparation and restoration for AWSS joint repair will include

1. Contractor shall submit for review and approval by CDD Engineering, structural plans and details for the support and protection of AWSS facilities in the vicinity during repair of the damaged joint;

2. Contractor shall support and protect AWSS facilities per approved submittal(s);

3. Contractor shall excavate a trench as required by CDD Engineering to expose the damaged AWSS pipe joint for repair purposes;

4. Upon direction and approval from a CDD Representative, Contractor shall remove support and protection devices, and restore facilities as described in this Section; and

5. CDD Representative shall inspect and approve all site preparation and restoration for AWSS joint repair work.

B. Contractor Responsible for all Costs

Exposure and restoration, testing, replacement, and repair of existing AWSS facilities as described in this Section including furnishing of materials, labor, equipment including pump and tools necessary, or required, to do such work shall be at the expense of the Contractor.

The Contractor shall be responsible for all CDD labor and material costs associated with repairing the damaged AWSS facilities.

C. Testing

The pipe repairs/replacement shall require CDD to isolate the pipe by closing gate valve(s), testing the repaired/replaced pipe section at a pressure of 300 psi (or other pressure designated by CDD engineering depending on site-specific constraints), repair any joints showing leakage or lead extrusions during pressure testing, and reactivating the pipe.

A CDD Representative will witness all pressure tests. The Contractor shall inform CDD Engineering a minimum of five (5) business days before all tests.

3.04 PROTECTION OF AWSS CISTERNS

A. Notify the City Representative

When excavation is to occur within 4 feet of an AWSS cistern, the Contractor is required to contact CDD Engineering a minimum of 5 business days in advance to review the field methods being used and/or proposed for the protection of the cistern and to schedule a baseline visual inspection by a CDD representative.

B. Required Inspections

The Contractor must schedule with the CDD representative to perform the following inspections:

1. Baseline visual inspection prior to excavation: CDD representative will take two measurements of the water surface within the cistern from grade separated by a minimum of 72 hours apart and document the water level measurements with the dates and times when these measurements were taken with signed acknowledgement by the CDD representative and the Contractor's representative. This information will be used to establish a baseline leakage rate.

2. Prior to backfilling: CDD representative will verify that the minimum clearances to the cistern roof and wall are met and inspect for any visible damages to the cistern that may be a result from construction activities.

3. Before and after pavement surface modifications: Where any excavation occurs within the outside edge of the brick ring, the CDD representative shall inspect ground surface before excavation and after pavement restoration. Prior to excavation, the CDD representative will inspect existing conditions of the brick ring, frame and cover. If the frame and cover is within the limits of paving work, the CDD representative will inspect if the frame and cover is outdated, worn or cracked and the City will provide a newer version at no cost to the Contractor for replacement prior to paving unless damage was caused by the Contractor. After paving is completed, the CDD representative will inspect the installation of the brick rings, frame, and cover. It is the Contractor's sole responsibility to ensure that the frame and cover is properly re-installed with the brick rings outlining the perimeter of the cistern.

4. After construction around cistern is completed: the Contractor must notify the CDD representative within a week after pavement restoration is completed to schedule an inspection to re-measure the water level. If the water level has lowered, the cause of the leakage will be investigated. If the cause of leakage is determined a result of Contractor's construction activities, all cost associated with the investigation and repair will be the Contractor's responsibility.

C. Minimum Clearance

Underground facilities must be installed with 12" horizontal clearance from the outside face of cistern wall and 12" vertical clearance from the top of the cistern roof.

END OF SECTION

SECTION 01 42 00

REFERENCES

PART 1 – GENERAL

1.01 SUMMARY

A. This section covers the following:

1. Applicable publications, reference specifications, codes, standards, abbreviations

2. How these documents relate to the Work described in the Contract Documents

1.02 APPLICABLE PUBLICATIONS

A. Unless a specific release or publication date is provided in reference to a published specification, code, standard, or other requirement in these Specifications, it shall be understood that the latest published version shall apply.

1.03 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

A. Contractor shall maintain copies of the codes and reference standards with the Contract Documents at the jobsite at all times.

B. All conflicts between codes, reference standards, drawings, and the other Contract Documents shall be brought to the attention of the City Representative for clarification prior to ordering or providing any materials or furnishing labor.

C. References to "OSHA Regulations for Construction" shall mean Title 29, Part 1926, Construction Safety and Health Regulations, Code of Federal Regulations (“OSHA”), including all changes and amendments thereto.

D. References to "OSHA Standards" shall mean Title 29, Part 1910, Occupational Safety and Health Standards, Code of Federal Regulations (“OSHA”), including all changes and amendments thereto.

E. Applicable Safety Standards – References to "Cal-OSHA" shall mean State of California, Department of Industrial Relations, Construction Safety Orders, as amended to date, and all changes and amendments thereto. Where codes and standards conflict with provisions of the Contract Documents, it is intended that the more stringent criteria shall apply, subject to preceding requirements of this paragraph.

F. Where codes and standards conflict with the provisions of the Contract Documents, the more stringent criteria shall apply, subject to the preceding requirements.

1.04 ABBREVIATIONS

A. Abbreviations: Whenever the following abbreviations are used in these Contract Documents, the intent and meaning shall be interpreted as follows:

AA	Aluminum Association
AAMA	American Architectural Manufacturers Association
AASHTO	American Association of State Highway and Transportation Officials
AATCC	American Association of Textile Chemists and Colorists
ABMA	American Bearing Manufacturer's Association – ABMA
ACGIH	American Conference of Governmental Industrial Hygienists
ACI	American Concrete Institute
AF&PA	American Forest and Paper Association
AGA	American Gas Association
AGMA	American Gear Manufacturers Association
AHA	American Hardboard Association
AHAM	Association of Home Appliance Manufacturers
AI	The Asphalt Institute
AIA	American Institute of Architects
AIHA	American Industrial Hygiene Association
AIIM	Association for Information and Image Management
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
AMCA	Air Movement and Control Association International, Inc
ANS	American Nuclear Society
ANSI	American National Standards Institute, Inc.
APA	The Engineered Wood Association
API	American Petroleum Institute
APWA	American Public Works Association
ARI	Air-Conditioning and Refrigeration Institute
ASA	Acoustical Society of America
ASAE	American Society of Agricultural Engineers
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigerating, and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASNT	American Society of Nondestructive Testing

ASQ	American Society for Quality
ASSE	American Society of Sanitary Engineers
ASTM	American Society for Testing and Materials
AWCI	American Wire Cloth Institute
AWI	Architectural Woodwork Institute
AWPA	American Wood Preservers Association
AWPI	American Wood Preservers Institute
AWS	American Welding Society
AWWA	American Water Works Association
BHMA	Builders Hardware Manufacturer's Association
CABO	Council of American Building Officials
CDA	Copper Development Association
CEMA	Conveyors Equipment Manufacturer's Association
CGA	Compressed Gas Association
CLFMI	Chain Link Fence Manufacturer's Institute
CLPCA	California Lathing and Plastering Contractors Association
CMAA	A division/section of the Material Handling Industry of America
CRSI	Concrete Reinforcing Steel Institute
DCDMA	Diamond Core Drilling Manufacturer's Association
DHI	Door and Hardware Institute
DIPRA	Ductile Iron Pipe Research Association
EI	Energy Institute
EIA	Electronic Industries Alliance
EPA	Environmental Protection Agency
ETL	Electrical Test Laboratories
FCC	Federal Communications Commission
FCI	Fluid Controls Institute
FEMA	Federal Emergency Management Association
FHWA	Federal Highway Administration
FM	Factory Mutual System
FPL	Forest Products Laboratory
HI	Hydronics Institute, Hydraulic Institute
HSWA	Federal Hazardous and Solid Waste Amendments
IAPMO	International Association of Plumbing and Mechanical Officials
ICBO	International Conference of Building Officials
IBC	International Building and Fire Code
ICC	International Code Council
ICEA	Insulated Cable Engineers Association
ICCEC	Electrical Code
ICC-ES	International Code Council Evaluation Service

IEEE	Institute of Electrical and Electronics Engineers
IESNA	Illuminating Engineering Society of North America
IFC	International Fire Code
IFGC	International Fuel Gas Code
IMC	International Mechanical Code
IME	Institute of Makers of Explosives
IPC	International Plumbing Code, and/or IPC-Association Connecting Electronic Industries (formerly Institute for Printed Circuits)
IRC	International Residential Code
ISA	Instrument Society of America
ISDI	Insulated Steel Door Institute
ISEA	Industrial Safety Equipment Association
ISO	International Organization for Standardization
ITE	Institute of Traffic Engineers
ITU-T	Telecommunications Standardization Sector of the International Telecommunications Union
LPI	Lightning Protection Institute
LRQA	Lloyd’s Register Quality Assurance
MBMA	Metal Building Manufacturer's Association
MIL	Military Standards (DoD)
MPTA	Mechanical Power Transmission Association
MSS	Manufacturers Standardization Society
NAAMM	National Association of Architectural Metal Manufacturer's
NACE	National Association of Corrosion Engineers
DASMA	Door and Access Systems Manufacturers Association International
NAPF	National Association of Pipe Fabricators
NBBPVI	National Board of Boiler and Pressure Vessel Inspectors
NCCLS	National Committee for Clinical Laboratory Standards
NCMA	National Concrete Masonry Association
NEC	National Electrical Code
NEMA	National Electrical Manufacturer's Association
NETA	International Electrical Testing Association
NFPA	National Fire Protection Association or National Fluid Power Association
NISO	National Information Standards Organization
NIST	National Institute of Standards and Technology
NLGI	National Lubricating Grease Institute
NRCA	National Roofing Contractors Association
NSF	National Sanitation Foundation
NWWDA	National Wood Window and Door Association

OSHA	Occupational Safety and Health Administration
PCA	Portland Cement Association
PCI	Precast/Prestressed Concrete Institute
PPI	Plastic Pipe Institute
RCRA	Resource Conservation and Recovery Act
RIS	Redwood Inspection Service, a division of the California Redwood Association, CRA
RMA	Rubber Manufacturers Association
RVIA	Recreational Vehicle Industry Association
RWMA	Resistance Welder Manufacturer's Association
SAE	Society of Automotive Engineers
SDI	Steel Door Institute, Steel Deck Institute
SMA	Screen Manufacturers Association
SMACNA	Sheet Metal and Air Conditioning Contractors National Association
SPFA	Steel Plate Fabricator’s Association
SPIB	Southern Pine Inspection Bureau
SSBC	Southern Standard Building Code, Southern Building Code Congress
SSPC	Society for Protective Coating
SSPWC	Standard Specifications for Public Works Construction
STLE	Society of Tribologists and Lubricating Engineers
TAPPI	Technical Association of the Worldwide Pulp, Paper, and Converting Industry
TFI	The Fertilizer Institute
TIA	Telecommunications Industries Association
TPI	Truss Plate Institute
UBC	Uniform Building Code
UL	Underwriters Laboratories, Inc.
WCLIB	West Coast Lumber Inspection Bureau
WDMA	National Window and Door Manufacturers Association
WEF	Water Environment Federation
WI	Woodwork Institute
WRI	Wire Reinforcement Institute, Inc.
WWPA	Western Wood Products Association

1.05 PROJECT-SPECIFIC REQUIREMENTS

A. ***Not Used***.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 50 00

TEMPORARY FACILITIES AND CONTROLS

PART 1 – GENERAL

1.01 SUMMARY

A. This Section describes the requirements for:

1. Temporary utilities to be provided by the Contractor, and

2. Site control measures to be followed by the Contractor during construction.

B. Related Documents and Sections:

1. Section 01 21 50 – Mobilization Item

2. Section 01 35 43 – Environmental Procedures

3. Section 01 14 13 – Access to Site

4. Section 01 71 33 – Protection of Adjacent Construction

5. Section 01 55 26 – Traffic Control

6. Section 01 52 13 – Field Offices

7. Section 01 77 00 – Closeout Procedures

1.02 TEMPORARY ELECTRICITY

A. Electrical Power: The Contractor shall arrange with the electrical power utility and provide electrical power required for its operations under the Contract and shall provide and maintain temporary power lines required to perform the Work in a safe and satisfactory manner.

B. Temporary Power Distribution: The Contractor shall provide a weatherproof, grounded, temporary power distribution system sufficient for performance of the entire Work, including temporary electrical heating where indicated, energizing of space heaters or temporary heat source for moisture protection of stored equipment, operation of test equipment and test operation of building equipment and systems which cannot be delayed until permanent power connections are operable, temporary operation of other temporary facilities, including permanent equipment and systems which must be placed in operation prior to use of

permanent power connections (pumps, HVAC equipment, elevators, and similar equipment), and power for temporary operation of existing facilities (if any) at the Site during change-over to new permanent power system. The Contractor shall provide circuits of adequate size and proper power characteristics for each use; run circuit wiring generally overhead, and rise vertically in locations where it will be least exposed to possible damage from construction operations and will result in minimal interference with performance of the Work; provide rigid steel conduit or equivalent raceways for wiring which must be exposed on grade, floors, decks, or other exposures to damage or abuse.

C. At certain times during construction, the Contractor may be required to provide portable generator(s) for construction purposes. It shall be the responsibility of the Contractor to comply with Air Quality Management District ("AQMD") regulations for the region in which the work is located, applicable to the operation of such generators. If the Contractor should exceed AQMD limits for the maximum amount of run time for such generators, then the Contractor shall be liable for any fines imposed.

1.03 TEMPORARY LIGHTING

A. Construction Lighting: Work conducted at night or under conditions of deficient daylight shall be suitably lighted to ensure proper performance and to afford adequate facilities for inspection and safe working conditions. Lighting shall be directed to ensure safe illuminated working areas, but also to minimize nuisance to surrounding property owners and users.

B. Temporary Lighting: The Contractor shall provide a general, weatherproof, grounded temporary lighting system in every area of construction as soon as overhead floor/roof deck structure has been installed to provide sufficient illumination for safe working and traffic conditions. Run circuit wiring generally overhead, and rise vertically in locations where it will be least exposed to possible damage from construction operations on grade, floors, decks, or other areas of possible damage or abuse.

1.04 TELEPHONE SERVICE

A. The Contractor shall arrange for, provide, and pay for telephone service to Contractor's Field Office.

B. The Contractor shall also arrange for, provide, and pay for local and domestic long distance telephone service to the City Representative's field office(s) as detailed in Section 01 52 13.

1.05 PARKING & CONTRACTOR'S STAGING/STORAGE AREAS

A. The Contractor's staging/storage areas shall be as shown or as determined during the pre-construction meeting. The City may designate and arrange for the Contractor's use, a portion of the property for its exclusive use during the term of

the Contract as a storage and/or shop area for its construction operations on the Work. If no such area is shown or provided, the Contractor shall make its own arrangements with adjacent property owners for staging/storage areas. The costs for the foregoing shall be included in the Contractor's bid. At completion of Work, the Contractor shall return all staging/storage areas to their original condition, including grading and landscaping, as applicable.

B. The Contractor shall make its own arrangements for any necessary off-site storage or shop areas necessary for the proper execution of the Work.

C. The Contractor shall construct and use a separate storage area for hazardous materials used in constructing the Work.

1. For the purpose of this paragraph, hazardous materials to be stored in the separate area are products labeled with any of the following terms: Warning, Caution, Poisonous, Toxic, Flammable, Corrosive, Reactive, or Explosive. In addition, whether or not so labeled, the following materials shall be stored in the separate area: diesel fuel, gasoline, new and used motor oil, hydraulic fluid, cement, paints and paint thinners, 2-part epoxy coatings, sealants, asphaltic products, glues, solvents, wood preservatives, sand blast materials, and spill absorbent.

2. Hazardous materials shall be stored in groupings according to the Safety Data Sheets.

3. The Contractor shall develop and submit to the City Representative a plan for storing and disposing of the materials above.

4. The Contractor shall obtain and submit to the City Representative a single EPA number for wastes generated at the Site.

5. The separate storage area shall meet the requirements of authorities having jurisdiction over the storage of hazardous materials.

6. The separate storage area shall be inspected by the City of San Francisco Hazardous Materials Management Division prior to construction of the area, upon completion of construction of the area, and upon cleanup and removal of the area.

7. Hazardous materials that are delivered in containers shall be stored in the original containers until use. Hazardous materials delivered in bulk shall be stored in containers which meet the requirements of authorities having jurisdiction.

D. Maintain traffic and parking areas in a sound condition, free of excavated material, construction equipment, mud, and construction materials. The Contractor shall repair breaks, potholes, low areas which collect standing water, and other deficiencies.

1. Contractor's vehicles and equipment shall not be permitted to block fire lanes, building entrances or employee parking areas.

1.06 TEMPORARY WATER SERVICE

A. General: The Contractor shall provide an adequate supply of water of a quality suitable for all domestic and construction purposes.

B. Potable Water: The Contractor shall make arrangement with the applicable water utility to provide potable water. The Contractor shall bear all the costs associated with supplying water.

C. Reclaimed Water: The Contractor shall comply with any applicable federal, state, and local laws, restricting the use of potable water for soil compaction and dust control activities.

D. The Contractor shall provide and maintain distribution piping, water tankers, hoses, and all appurtenances necessary to supply water at the job site.

1. The Contractor shall not make connection to or draw water from any fire hydrant or pipeline without first obtaining permission of the authority having jurisdiction over the use of said fire hydrant or pipeline and from the agency owning the affected water system. For each such connection made, the Contractor shall first attach to the fire hydrant or pipeline a valve and a meter, if required by the said authority, of a size and type acceptable to said authority and agency. The Contractor shall pay permit and water charges.

2. Pipe crossing traveled roadways shall be buried beneath the roadway. Ramp shall be used over temporary piping on roadway surfaces.

1.07 TEMPORARY HEATING OR COOLING

A. The Contractor shall provide adequate fixed temporary heating, and/or cooling of enclosed construction Work, Contractor's construction offices, toilets, fabrication shops, and similar temporary facilities requiring climate control.

1.08 TEMPORARY FIRE PROTECTION

A. The construction plant and the Work shall be connected with the Contractor's temporary water supply system and shall be adequately protected against damage by fire. Hose connections and hose, water casks, chemical equipment, or other sufficient means shall be provided for fighting fires in the temporary structures and other portions of the Work, and responsible persons shall be designated and instructed in the operation of such fire apparatus so as to prevent or minimize the hazard of fire. The Contractor's fire protection program shall conform to the requirements of Cal-OSHA.

1.09 TEMPORARY SANITARY FACILITIES

A. Fixed or portable chemical toilets shall be provided wherever needed for the use of Contractor's employees. Toilets at construction sites shall conform to the requirements of the OSHA Standards for Construction. Provide separate Contractor and City Representative field office toilet facilities in conformance with Section 01 52 13. The Contractor shall maintain neat and clean sanitary conditions with adequate supplies.

B. The Contractor shall establish a regular daily collection of sanitary and organic wastes. Wastes and refuse from sanitary facilities provided by the Contractor or organic material wastes from any other source related to the Contractor's operations shall be disposed of away from the Site in accordance with laws and regulations pertaining thereto.

1.10 BARRIERS

A. The Contractor shall provide barriers as needed to prevent unsafe entry to construction areas and to protect existing facilities and adjacent properties from damage from construction operations and demolition.

B. The Contractor shall protect vehicular traffic, stored materials, site, and structures from damage.

1.11 PROTECTION OF SEWAGE SYSTEM

A. The Contractor shall coordinate with the applicable Utilities Department for obtaining sewer connection and shall pay permit and sewer usage charges. Within the City and County of San Francisco, the sewer capacity charges will be paid by the City.

B. The Contractor shall take adequate measures to prevent the impairment of the operation of the sewer system. Contractor shall prevent construction material, pavement, concrete, earth, or other debris from entering a sewer, sewer structure, catch basin or stormwater inlet.

1.12 TEMPORARY FENCING

A. The Contractor shall provide temporary, 6 feet high commercial grade, chain link construction fences to protect the Contractor’s property.

1. Fabric: high utility type fencing consisting of 2-inch wood lath woven between seven strands of galvanized wire. Space between laths shall not exceed 2 inches.

2. Posts: metal or wood, as approved by the City Representative.

1.13 MAINTENANCE OF THE WORK AREA

A. The Contractor shall:

1. Maintain the work areas in a safe condition. Remove all accumulations of rubbish and surplus materials at the end of each working day. Restore the work areas to a condition equal to that which existed prior to the start of work, and leave them at completion of the contract in a clean, orderly fashion.

2. Control accumulation of waste materials and rubbish. Collect waste from construction areas and elsewhere daily. Comply with requirements of NFPA 241 for removal of combustible waste material and debris. Enforce requirements strictly. This task includes but is not limited to the following:

   a. Cleaning interior spaces prior to the start of finish work and maintain areas free of dust and other contaminants during finishing operations

   b. Handling hazardous, dangerous, or unsanitary waste materials separately from other waste by containerizing properly and disposing of material off-site in a lawful manner

   c. Sweeping all pedestrian walkways and dispose of debris around the site perimeter on a daily basis

   d. Providing a dumpster or other suitable means of disposing of all construction debris and trash generated by the Contractor's forces during the course of construction

3. Remove all graffiti from any real property owned or leased by Contractor in the City and County of San Francisco within 48 hours of the earlier of Contractor's (a) discovery or notification of the graffiti or (b) receipt of notification of the graffiti from the Department of Public Works. This section is not intended to require a Contractor to breach any lease or other agreement that it may have concerning its use of the real property. The term "graffiti" means any inscription, word, figure, marking, or design that is affixed, marked, etched, scratched, drawn, or painted on any building, structure, fixture, or other improvement, whether permanent or temporary, including by way of example only and without limitation, signs, banners, billboards, and fencing surrounding construction sites, whether public or private, without the consent of the owner of the property or the owner's authorized agent, and which is visible from the public right-of-way. "Graffiti" shall not include: (1) any sign or banner that is authorized by, and in compliance with, the applicable requirements of the San Francisco Public Works Code, the San Francisco Planning Code or the San Francisco Building Code; or (2) any mural or other painting or marking on the property that is protected as a work of fine art under the California Art

Preservation Act (California Civil Code Sections 987 et seq.) or as a work of visual art under the Federal Visual Artists Rights Act of 1990 (17 U.S.C. §§ 101 et seq.).

1.14 DUST CONTROL

A. The Contractor shall practice care to minimize dust generation. The Contractor shall furnish all labor, equipment, and means required to carry out effective measures whenever and as often as necessary to prevent its operation from producing dust in amounts damaging to property or cultivated vegetation, or causing a nuisance to local residents. The Contractor shall be responsible for any damage resulting from dust originating from its operations.

B. At a minimum, the Contractor shall observe all of the following specific dust control measures:

1. Wash the tires of excavation and spoils trucks before they re-enter city streets to minimize deposition of dust-causing materials.

2. Minimize the amount of excavated material or demolition wastes stored at the site. All dust-generating stockpiled construction materials shall be covered to prevent dust generation.

3. Mist all exposed soil surfaces twice daily during dry weather and additionally if dust is blowing or if required by the City Representative.

4. Load haul trucks carrying excavated materials so that the material does not extend above the truck body. The material hauled shall be covered as needed for dust suppression.

5. Cover all trucks containing dust-generating excavated material or demolition waste prior to their leaving the construction sites.

6. Use reclaimed water for dust control as mentioned above. Any exceptions shall be approved by the City Representative.

7. Sidewalks, paths and street areas affected by the Contractor's operations shall be mechanically swept and washed down before starting work each day, at the end of each work shift, or as often as needed. Avoid over-watering areas and generating mud.

8. Dust enclosures and dust collectors shall be used as necessary to control dust in the excavation area.

9. Any excavated materials and soil stockpiles shall be kept moist or covered with securely taped 10 mil polyethylene plastic or equivalent tarping as needed for dust suppression.

10. Comply with:

    a. The requirements of the pertinent Air Quality Management District ("AQMD") for particulate matter and visible emissions; Odorous Substances; and Hazardous Pollutants.

    b. The California Health and Safety Code, Division 26 (Air Resources), Chapter 3 (Emission Limitations) Section 41700 (Prohibited Conduct), and related regulations

11. Perform and pay for cleanup of all spillage (including clean soils) on streets, directly or indirectly caused by actions of employees or equipment of Contractor or its subcontractors.

12. If the Contractor fails to provide adequate dust control as determined by the City Representative, the City reserves the right to have the necessary work performed by others and to deduct or withhold money required therefor.

1.15 NOISE CONTROL

A. General: The Contractor shall furnish and install acoustical barriers including acoustical treatment of the facades of buildings, so that no noise emanating from the process or any related tool or equipment will exceed noise levels specified in the Contract Documents or required by the permitting agency, whichever is more stringent. Contractor, therefore, shall:

1. Enclose equipment such as large compressors, generators, and large dewatering pumps in enclosures as necessary so as to not exceed applicable noise limits.

2. Provide advance notice to residences and affected businesses in the area of construction as specifically as possible in terms of times, dates and location of construction activities.

B. Construction Noise Control Plan: The Contractor shall submit plans for the City's approval, within 30 calendar days following award of the Contract, to mitigate the construction noise impacts and to comply with the noise criteria specified herein, including the method of construction, the equipment to be used, and acoustical treatments if necessary.

1.16 DRAINAGE CONTROL

A. The Contractor shall:

1. Grade site to drain water. Maintain excavations free of accumulated water.

2. Provide, operate, and maintain pumping equipment as needed to control water at the site.

3. Protect site from erosion caused by flowing water.

For all Projects designated as security-sensitive, Project Engineer shall coordinate with Jeff Harp regarding the appropriate content for the following 'Project Signs' Article 1.17.

1.17 PROJECT SIGNS

A. The Contractor shall provide and install project signs facing traffic at the entrance of facility, where directed by the City Representative, at the job site prior to the start of any work.

B. The design of the Contractor-furnished project signs shall be in strict accordance with the 'ONESF' Guidelines established by the City and described at the following web address: http://onesanfrancisco.org/data-resources/style-guide.

1. For linear assets, (e.g., streets and sewers), project signage shall comply with City Street Construction Guidelines: http://onesanfrancisco.org/sites/default/files/inline-files/ONESF_4x6_Guide_CityStreetConstSign-1.4-2.pdf.

2. For fixed assets (e.g., buildings, treatment facilities, and pump stations), project signage shall comply with City Site and Building Construction Guidelines: http://onesanfrancisco.org/sites/default/files/inline-files/ONESF_4x8_Guide_SiteBldgConstSign1.5-2.pdf.

C. The graphics and content of the sign will be provided by the City Representative at the pre-construction meeting.

D. The City Representative shall approve locations and mounting details of the project signs.

E. The Contractor shall maintain the signs in good condition for the duration of the Contract, and, if needed, shall promptly clean graffiti and other defacement from the project signs.

F. The Contractor shall remove project signs from the site as the Contractor's property at the completion of the Work.

G. For paving and utility construction projects, project signs shall not obstruct or interfere with the operation of all traffic control devices. Project signs shall be placed as directed by the City Representative and shall follow these general guidelines:

1. Where the location of a pipe alignment does not exceed five adjacent blocks, place one sign at either end of the block facing oncoming traffic, or facing away from the limit of work on one-way streets.

2. Where the location of a pipe alignment exceeds five adjacent blocks, place one sign at either end of the limit of work facing oncoming traffic, and at intermediate locations not to exceed five block intervals with one sign placed on either side of the street facing oncoming traffic, or at opposite directions on one-way streets.

1.18 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

A. When need for a temporary utility service or a substantial portion thereof has ended, or when its service has been replaced by use of permanent services, or not later than time of substantial completion, the Contractor shall promptly remove installation unless requested by City Representative to retain it for a longer period. The Contractor shall complete and restore Work which may have been delayed or affected by installation and use of temporary utility, including repairs to construction and grades and restoration and cleaning of exposed surfaces.

B. Before final acceptance of the Work on the project, temporary connections and piping installed by the Contractor shall be entirely removed, and affected improvements shall be restored to original condition or better, to the satisfaction of the City Representative and to the agency owning the affected utility.

1.19 PAYMENT PROCEDURE

A. All work of this section shall be considered incidental and no separate payment will be made therefor, except that project signs will be paid under the "Mobilization" bid item.

1.20 PROJECT –SPECIFIC REQUIREMENTS

A. ***Not Used***.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 52 13

FIELD OFFICES

PART 1 – GENERAL

1.01 SUMMARY

A. This Specification Section covers the general requirements pertaining to:

1. Contractor's Field Office and Sheds
2. City Representative's Field Office

B. Related Documents and Sections

1. Section 00 41 10 – Schedule of Bid Prices
2. Section 01 21 50 – Mobilization Item
3. Section 01 20 00 – Price and Payment Procedures
4. Section 01 50 00 – Temporary Facilities and Controls.
5. Section 01 77 00 – Closeout Procedures

1.02 GENERAL REQUIREMENTS

A. Contractor shall provide and maintain the City Representative's field office as specified herein including all specified furnishings, equipment and services during the entire period of construction until final completion.

B. Contractor shall provide and pay for temporary utility connections and services as required to support the field office, including sanitary sewer, potable water, power (electricity) and communication (telephone and internet) services for the entire period of construction until final completion.

C. All required field offices shall be equipped and furnished as specified herein, and shall be ready for use by the City Representative within 10 calendar days following Notice To Proceed.

D. All office, furnishing, tools and equipment specified herein to be provided to the City Representative shall be for the City's exclusive use.

E. The location of the City Representative's field office shall be as indicated on the Drawings. If not shown, then the location shall be determined by the City Representative and be in close proximity to the Work.

F. If the Contractor has a project field office, the location of the Contractor's shall be in close proximity to the work as approved by the City Representative.

G. Contractor shall provide, maintain, and pay for their own temporary field offices and storage sheds, including all utilities and maintenance services, as required for proper project management and execution of the work.

H. Contractor is responsible for obtaining all required permits for the Contractor's and the City Representative's field offices including all associated temporary facilities.

I. Materials, installation, maintenance, and removal of Contractor's field offices and materials, installation, maintenance, and removal of City Representative's field office(s) shall comply with all applicable specifications and regulatory requirements, and shall be paid for by the Contractor.

J. Contractor shall remove Contractor's and City Representative's field offices and construction facilities, including associated equipment and utilities, from the site as Contractor's property, within 14 calendar days after Contractor's Application for Final Payment has been approved by the City Representative, or when its use is no longer required as determined by the City Representative. Restore the site occupied by said field offices to the original or better condition. All furnishings and equipment as specified herein will be returned to the Contractor for removal from the field office as the Contractor's property.

1.03 CITY REPRESENTATIVE'S FIELD OFFICE SUPPLIES AND EQUIPMENT

A. The Contractor shall pay for an initial supply of the items listed below and replacement of all consumed items furnished to the City Representative's Field Office including, but not limited to: photocopy and fax machine paper and toner, paper towels, paper cups, soap, toilet paper, bottled water service (with hot and cold water faucets), telephone service, electric lighting, electric heating and cooling, security services, waste pump-out and twice weekly cleaning service.

1.04 PROJECT-SPECIFIC REQUIREMENTS

A. ***Not Used.***

PART 2 – PRODUCTS

2.01 CITY REPRESENTATIVE'S FIELD OFFICE

A. Contractor shall provide new construction trailers as specified herein. If the field office(s) are used or reconditioned, the City Representative will have sole authority to determine their acceptability.

B. Contractor shall locate the City Representative's field office close to the Contractor's field office or other approved point convenient to the construction operations.

C. The City Representative shall approve the final location and floor-plan layout prior to delivery of the field office to the jobsite. The City Representative's field office shall be a trailer type mobile structure. The field office shall have the following features:

1. The area of the field office shall be approximately 320 sq. ft. (10' x 32').

2. The office shall have as a minimum:

   a. 120-volt AC power and associated meter, circuit breakers, switches, outlets, motion sensor actuated exterior spotlights at entrance and on parking spaces, etc.

   b. Potable water and sanitary sewage service

   c. Telephone service and equipment with two phone lines and one fax line.

   d. One T-1 data line, or equivalent in capacity, plus appropriate network outlets

   e. Seismic restraint system

   f. Security guard screens on all windows and doors with vandal resistant bolts

   g. Keyed alike locking handsets and deadbolts on doors with 4 keys. Separate ¼" thick security bar across each door with shrouded weather resistant padlock with 4 keys

   h. Trailer skirting to match the exterior finish

   i. Insulated double walls, floor, and roof

   j. Self-contained, built-in electric heater and air conditioner with thermostatic controls

   k. Fluorescent ceiling lights

   l. Electrical outlets shall have 20 amp wall plug circuits located approximately 10 feet o.c., minimum of five outlets.

D. The City Representative's Field Office shall have the following additional features, all subject to approval by the City Representative:

1. Operable windows, in accordance with applicable regulations, with screens and new blinds in all habitable rooms

2. Minimum interior height 7 feet

3. Circuit breakers sized and grouped such that operation of the electrical equipment in the trailer does not interrupt operation of the computers and electrical equipment

4. One restroom

5. Trailer shall have linoleum flooring

6. Graveled vehicle parking space for at least three parking spaces adjacent to the City Representative's Field Office

7. Weekly bottled drinking water service with hot and cold-water faucets and paper cups shall be provided and paid for by the Contractor.

8. Twice weekly wastewater holding tank (double contained) pump-out and maintenance service.

E. Contractor shall maintain the Field Office and appurtenances in good repair and appearance as accepted by the City Representative. The Contractor shall furnish and pay for regular janitorial services at least twice a week. This will include collection and removal of refuse from site. Field Office shall be swept, dusted, vacuumed and mopped, and waste receptacles emptied. Toilet facilities shall be sanitized and cleaned. Dispensers and continuous supply of toilet paper, seat covers, liquid soap, and paper towels shall be furnished for restroom facility.

2.02 FURNISHINGS AND EQUIPMENT

A. Contractor shall provide the following furniture (all items shall be new):

1. Two desks, 36"x72" with not less than 3 drawers.

2. Two office type rolling swivel height adjustable ergonomic desk chair, with padded cushion, and back and arms, for each desk.

3. One folding table, 30"x60".

4. Four folding chairs

5. Two file cabinets, legal size, 4 drawers high with lock and 3 keys, double suspension, complete with Pendaflex suspension system for each drawer.

6. Three waste paper baskets

7. One corkboard, 3'x5'

8. One white board, 3'x5'

9. One bookcase, 5 shelves high, 12" deep and 36" wide

10. One microwave oven with 750 watts power and 1 cu. ft. volume minimum

11. One 4.0 cubic foot refrigerator with freezer

12. One coat rack

13. Boot scraper

14. One 12-plan rolling rack for full sized drawings and tweleve hanging clamps.

B. Contractor shall provide including all assembly, installation and hookup, one new copy machine (with service contract) that can stack feed, collate, copy double sided, reduce and enlarge, make both 8.5x11 and 11x17 copies, and as well as scan and e-mail. Contractor shall pay for all maintenance, services, service contract and supplies to keep the copier working. In addition, Contractor shall provide all paper supplies as needed by the City Representative, and shall ensure that those supplies include recycled, post-consumer content.

C. Contractor shall provide one new plain paper multi-page-feed fax machine (with service contract, maintenance, and supplies).

D. Trailer shall have electrical power, telephone and data wiring and outlets as necessary to serve the foregoing equipment. At a minimum each desk location shall be served with electrical, telephone and data outlets.

2.03 TOOLS AND OTHER EQUIPMENT

A. Contractor shall provide the following new tools and equipment which shall become the property of the City upon completion of the project:

1. First aid kit in accordance with Cal OSHA requirements

2. Two wall-mounted fire extinguishers, 10 lb. size, effective against Class A, B, and C fires, for each trailer office

2.04 TELEPHONE AND INTERNET SERVICE

A. Within 10 calendar days after Notice to Proceed, the Contractor shall provide in the Field Office for the use of the City Representative, the required number of incoming telephone lines including the one(s) dedicated for the FAX machine,

and the required number of T-1 data lines. Contractor shall also pay for telephone and internet usage by City employees during construction.

PART 3 – EXECUTION (NOT USED.)

END OF SECTION

SECTION 01 55 26

TRAFFIC CONTROL

THIS IS ONLY A PLACEHOLDER SHEET FOR THIS USER-SELECTED SPECIFICATION SECTION. REPLACE THIS PAGE WITH THE 100% DESIGN VERSION OF SECTION 01 55 26 ONLY IF YOU USE THIS DOCUMENT'S EXISTING STYLES OF HEADING 1, HEADING 2, HEADING 3, ETC. IF YOU WILL NOT BE USING THIS FILE'S STYLES, DO NOT INSERT YOUR TEXT INTO THIS FILE BUT INSTEAD PROVIDE THE CONTRACT STANDARDS ENGINEER A FINAL PDF VERSION. THE SELECTION OF THIS SECTION HAS CAUSED THIS SECTION TO BE LISTED IN THE TABLE OF CONTENTS AND HAS CAUSED CROSS-REFERENCES TO THIS SECTION TO BE INSERTED IN VARIOUS DIV. 01 SECTIONS.

CHECK LIQUIDATED DAMAGES AGAINST THOSE FOUND IN SECTION 00 73 02.

END OF SECTION

SECTION 01 56 55

TEMPORARY NOISE AND VIBRATION CONTROLS

PART 1 – GENERAL

1.01 SUMMARY

A. This section provides the noise and vibration limits for the project and describes the work required to control and monitor noise and vibration.

B. Related Documents and Sections include:

1. Section 00 73 73 – Statutory and Other Requirements

2. Section 00 73 73/APA – Noise Control Ordinance (applicable only to projects located in San Francisco)

3. Section 01 35 43 – Environmental Procedures

4. Section 31 71 16 – Drilling and Blasting, Tunnel Excavation ***(as applicable)***

   Project Engineer shall insert standard mitigation measures related to blasting into Section 31 71 16, and similarly insert mitigation measures related to noise and vibration into this Section 01 56 55, if applicable. If not applicable, delete this listing of Section 31 71 16, above.

1.02 SUBMITTALS

A. Noise Control Plan ***Project Engineer: Delete if not required per Section 1.04B below.***

B. Vibration Control Plan ***Project Engineer: Delete if not required per Section 1.05B below.***

C. Controlled Detonations Plan ***Project Engineer: Do not include if not required per Section 1.04F below.***

D. Noise Monitoring Logs – submit daily or as otherwise required by the City Representative (if applicable in accordance with Article 1.04 below)

E. Vibration Monitoring Logs – submit daily or as otherwise required by the City Representative (if applicable in accordance with Article 1.05)

1.03 DEFINITIONS

A. Ambient - the lowest sound level repeating itself during a minimum 10-minute period as measured with a type 1, precision sound level meter, using slow response and "A" weighting. The minimum sound level shall be determined with the noise source at issue silent, and in the same location as the measurement of the noise level of the source or sources at issue. In no case shall the ambient be considered or determined to be less than 45. If a significant portion of the ambient is produced by one or more individual identifiable sources of noise that contribute cumulatively to the sound level and may be operating continuously during the minimum 10-minute measurement period, determination of the ambient shall be accomplished with these separate identifiable noise sources silent or otherwise removed or subtracted from the measured ambient sound level.

B. Noise level - the maximum continuous sound level or repetitive peak sound level, produced by a source or group of sources as measured with a sound level meter. In order to measure a noise level, a type 1 precision sound level meter shall be used with the controls of the sound level meter set to the appropriate to the type of noise being measured; slow response for continuous noise sources and fast response for noises with rapid onset and decline.

C. Property plane - a vertical plane including the property line that determines the property boundaries in space.

D. Sound level - expressed in decibels (dB), means a logarithmic indication of the ratio between the acoustic energy present at a given location and the lowest amount of acoustic energy audible to sensitive human ears and weighted by frequency to account for characteristics of human hearing, as given in the American National Standards Institute Standard S1.1, "Acoustic Terminology," paragraph 2.9, or successor reference.

E. Sensitive Receptor – residences (excepting watershed keeper's), schools, daycare centers, libraries, churches, hospitals, and convalescent care facilities, assisted living facilities, hotels, and other lodging facilities.

1.04 NOISE REQUIREMENTS

A. Noise Level Thresholds. Noise levels during construction shall not exceed the following thresholds:

1. ***Project Engineer – Include for all projects within the limits of the City and County of San Francisco***. Contractor shall comply with the City Noise Ordinance (Article 29 of the San Francisco Police Code, Section 2907), which limits noise from any one piece of equipment to 80 dBA as measured at a distance of 100 feet (or 86 dBA at 50 feet or 74 dBA at 200 feet) between 7 a.m. to 8 p.m.

a. Sound level restrictions do not apply to impact equipment such as jackhammers. Such equipment shall however be equipped with acoustically attenuating shields, or shrouds to minimize noise to the maximum extent feasible.

2. ***Project Engineer – Include for all projects within the limits of the City and County of San Francisco***. Contractor shall comply with the City Noise Ordinance (Article 29 of the San Francisco Police Code, Section 2908), which limits noise from 8 p.m. to 7 a.m. to no more than 5 dBA above ambient noise level as measured at the project site boundary adjacent to the nearest sensitive receptor.

   a. If night work (8 p.m. to 7 a.m.) is required that would result in noise greater than 5 dBA above ambient noise level as measured at the nearest property plane, Contractor shall obtain a Night Noise Permit from San Francisco Public Works and provide a copy to the City Representative prior to starting such work.

3. ***Project Engineer – Add other noise thresholds required by project's CEQA document here, i.e., in Section 01 56 55, such as the following below***.

   a. Contractor shall implement appropriate noise controls such that daytime construction noise levels do not exceed 70 dBA to avoid speech interference at sensitive receptors, including schools, residences (excepting SFPUC watershed keeper's residence), childcare centers, churches, hospitals and nursing homes within 500 feet of the project.

   b. Contractor shall implement appropriate noise controls such that nighttime construction noise levels do not exceed any applicable ordinance nighttime limits or 50 dBA to avoid nighttime sleep interference at adjacent sensitive receptors, including schools, residences (excepting SFPUC watershed keeper's residence), childcare centers, churches, hospitals and nursing homes within 3,000 feet of the project.

B. ***Project Engineer – Include the following if required in project's CEQA document:*** Noise Control Plan. Contractor shall prepare and submit to the City for review and approval, at least 30 calendar days prior to commencing construction, a Noise Control Plan prepared by a qualified noise consultant to include identification of noise control measures, monitoring protocol, notification procedures, and other information. A qualified noise and vibration consultant is defined as a Board Certified Institute of Noise Control Engineering ("INCE") member or other qualified consultant or engineer approved by the City Representative.

C. Minimum Noise Control Measures. Contractor shall implement the following minimum noise control measures. Contractor shall be responsible for ensuring that all implemented noise control measures are installed and used correctly.

1. Best available controls techniques including mufflers, intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds for all construction-noise equipment and trucks.

2. Contractor shall use quieter procedures, such as sonic or vibratory pile drivers drilling rather than impact equipment whenever feasible.

3. If impact equipment is required, Contractor shall use hydraulic- or electric- powered impact equipment (e.g., jack hammers, pavement breakers and rock drills) instead of pneumatically-powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed-air exhaust shall be used (a muffler can lower noise levels from the exhaust by up to about 10 dBA). External jackets on the tools themselves shall be used, where feasible to achieve a reduction of 5dBA.

4. Pile holes will be pre-drilled wherever feasible to reduce potential noise and vibration impacts. ***Project Engineer: Delete if no pile driving.***

5. Pile driving activities shall be prohibited during the evening and nighttime hours (7 p.m. to 7 a.m.). ***Project Engineer: Delete if no pile driving.***

6. Operation of equipment requiring the use of back up beepers shall be avoided near sensitive receptors to the extent feasible during nighttime construction work hours between 10 p.m. to 7 a.m.

7. Stationary noise sources shall be located as far from sensitive receptors as feasible. If they must be located near receptors, adequate muffling (with enclosures where feasible and appropriate, such as with 1-inch thick plywood sheets) shall be installed to ensure noise thresholds specified herein are not exceeded. Enclosure openings shall be faced away from sensitive receptors.

8. Materials stockpiles as well as staging and parking areas shall be located as far as feasible from sensitive receptors.

9. If construction is within 100 feet of school classrooms, Contractor shall schedule construction activities (or at least the noisier phases of construction) on weekend or school vacation days to the extent feasible, avoiding weekday hours when schools are in session. ***Project Engineer: Delete if no schools within 100 feet.***

10. Proposed jack-and bore pits for micro-tunneling or boring operations shall be constructed as far as feasible from sensitive receptors. If ventilation

fans, dewatering pumps, or generators are required as part of this type of activity, best available controls techniques shall be used to minimize noise. ***Project Engineer: Delete if no tunneling or boring.***

11. Construct temporary or permanent noise barriers to maintain construction noise levels at or below the above noise requirements.

12. For tunnel related construction activities given their long duration at tunnel shafts/portals and proposed nighttime activities, measures that could be implemented to comply with the noise thresholds specified herein could include using quiet ventilation fans, using grid power instead of generators, erecting temporary sound barriers, restricting heavy equipment operation during nighttime hours, using nonmetallic containers for muck removal, limiting controlled detonations in the tunnel shaft/portal areas to daytime hours, retrofitting the windows and/or doors in affected homes, and prohibiting or limiting use of backup alarms as described above. ***Project Engineer: Delete if no tunneling or boring***.

13. Contractor shall not use local residential streets for haul and delivery truck routes and follow local designated truck routes to the extent feasible.

D. ***Project Engineer – Include the following if monitoring is required in project's CEQA document:*** Noise Control Monitoring. Contractor shall monitor noise levels at the project boundary adjacent to the nearest sensitive receptor. If noise thresholds are exceeded, Contractor shall stop the work activity causing the complaint and identify alternate methods and equipment or place restrictions on construction operations to comply with noise thresholds. Work shall not resume until approved by the City Representative. Noise monitoring shall be performed with a type 1 precision sound level meter.

E. ***Project Engineer – Include the following if monitoring is NOT required in project's CEQA document:*** Noise Control Monitoring. Contractor shall monitor noise levels at the project boundary adjacent to the nearest sensitive receptor if a noise complaint is received, and City Representative determines that such complaint is valid, or as otherwise directed by the City Representative. Monitoring locations and methods to be implemented shall be established by a qualified noise and vibration consultant as defined as a Board-Certified Institute of Noise Control Engineering ("INCE") member or other qualified consultant or engineer submitted for approval to and approved by the City Representative.

1. If noise thresholds are exceeded, Contractor shall stop the work activity causing the complaint and identify alternate methods and equipment or place restrictions on construction operations to comply with noise thresholds. Noise monitoring shall be performed with a type 1 precision sound level meter.

2. Contractor shall neither resume operations before correcting conditions that cause excessive noise as deemed acceptable by the City nor be entitled to additional compensation or extension of contract time for suspended operations because of its failure to perform noise controls as specified.

3. Contractor shall pay all fines for violations pertaining to noise thresholds specified herein, at no cost to the City

4. In the event monitoring results indicated thresholds are exceeded, the Contractor shall immediately notify the City of the exceedance, identify the source of the exceedance (e.g., unusually noisy method, broken muffler, emergency repair), implement corrective actions, and provide documentation to the City that noise levels are returned to acceptable levels.

5. City will inform Contractor of noise complaints received and the Contractor, in coordination with the City, shall modify any construction activities that generated the excessive noise levels.

6. If Contractor receives noise complaint directly, Contractor shall immediately notify City.

Project Engineer: Include the controlled detonations plan discussion below, if applicable, and include Section 31 71 16 Drilling and Blasting, Tunnel Excavation. Note that Section 31 71 16 requires a General Blasting Plan and the General Blasting Plan/Controlled Detonations Plan could probably be one and the same.

F. Controlled Detonations Plan. Contractor shall prepare a Controlled Detonations Plan that shall be submitted to the City at least 30 days prior to the first blasting operations. Contractor shall provide regular schedule updates such that City can notify surrounding cities and residents of the blasting schedule.

1. Contractor shall limit controlled detonation associated with tunnel construction to the daylight hours, Monday through Saturday.

1.05 VIBRATION REQUIREMENTS

A. Vibration Level Thresholds. Vibration during construction shall not exceed the following thresholds:

1. 0.2 inches per second, peak particle velocity (in/sec PPV) for continuous vibration (e.g., vibratory equipment and impact pile drivers) adjacent to modern industrial/commercial buildings.

2. 0.50 in/sec PPV for frequent/intermittent vibration adjacent to modern industrial/commercial buildings.

3. 0.25 inches per second, peak particle velocity (in/sec PPV) for frequent/intermittent vibration adjacent to historic and some old buildings. ***Project Engineer: Delete if no historical buildings identified within project vicinity.***

4. 0.1 inches per second, peak particle velocity (in/sec PPV) for frequent/intermittent vibration adjacent to fragile historic buildings. ***Project Engineer: Delete if no historical buildings identified within project vicinity.***

5. 0.50 in/sec PPV for controlled detonations at the closest receptors. ***Project Engineer: Delete if no controlled detonations.***

6. 0.012 in/sec PPV (vibration perception threshold) at adjacent properties (or in accordance to local ordinances) to the extent possible for nighttime construction activities.

B. ***Project Engineer – Include the following if required in project's CEQA document***: Vibration Control Plan. Contractor shall prepare and submit to the City for review and approval, at least 30 calendar days prior to commencing construction, a Vibration Control Plan prepared by a qualified noise consultant to include identification of noise control measures, monitoring protocol, notification procedures, and other information. A qualified vibration consultant is defined as a Board Certified Institute of Noise Control Engineering member or other qualified consultant or engineer approved by the City Representative.

C. Minimum Vibration Control Measures. Contractor shall implement the following minimum vibration control measures. Contractor shall be responsible for ensuring that all implemented vibration control measures are installed and used correctly:

1. Measures listed in "Noise Control Monitoring" in Article 1.04 above.

2. Using alternative procedures in vibration-sensitive areas, i.e., adjacent to sensitive receptors or historical buildings, by using techniques with lower vibration levels.

3. Restricting the use of equipment causing vibration (such as impact equipment like a sheep's foot for compaction) during nighttime hours.

D. ***Project Engineer – Include the following if monitoring is required in project's CEQA document:*** Vibration Control Monitoring. Contractor shall monitor vibration levels at the project boundary adjacent to the nearest sensitive receptor. If vibration thresholds are exceeded, Contractor shall stop work and identify alternate methods and equipment or place restrictions on construction operations to comply with vibration thresholds.

E. ***Project Engineer – Include the following if monitoring is NOT required in project's CEQA document:*** Vibration Control Monitoring. Contractor shall

monitor vibration levels at the project boundary adjacent to the nearest sensitive receptor if a vibration complaint is received, and City Representative determines that such complaint is valid, or as otherwise directed by the City Representative. Monitoring locations and methods to be implemented shall be established by a qualified noise and vibration consultant as defined as a Board-Certified Institute of Noise Control Engineering member or other qualified consultant or engineer submitted for approval to and approved by the City Representative.

1. If vibration thresholds are exceeded, Contractor shall stop the work activity causing the complaint and identify alternate methods and equipment or place restrictions on construction operations to comply with vibration thresholds.

2. The City may require the Contractor to suspend operations when vibration complaints are received, damage or disturbance to adjoining property or occupants has been reported, or vibration exceeds the above-specified limits, such as restricting use of equipment causing vibration disturbances during nighttime hours or slowing the pace of its operations.

3. Contractor shall monitor vibration at the construction site and adjoining buildings using equipment and methods as deemed appropriate by the City to measure potential building damage and effect on occupants, property and sensitive equipment.

4. City will inform Contractor of vibration complaints received and the Contractor, in coordination with the City, shall modify any construction activities that generated the excessive noise levels.

5. If Contractor receives vibration complaint directly, Contractor shall immediately notify City.

6. The Contractor will neither resume operations before correcting conditions that cause excessive vibration nor be entitled to additional compensation or extension of contract time for suspended operations because of its failure to perform vibration controls as specified.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 57 14

CONSTRUCTION SITE RUNOFF CONTROL REQUIREMENTS

(For Projects Equal To Or Greater Than 5,000 Square Feet; Permit And Erosion And Sediment Control Plan)

PART 1 – GENERAL

1.01 DESCRIPTION

A. This Section specifies the general requirements for furnishing all labor, materials, equipment, and operations necessary for work related to stormwater and non-stormwater controls to prevent illicit discharges to the City's combined sewerage system pursuant to the Construction Site Runoff Control Program (https://sfpuc.org/programs/pretreatment-program/construction-site-runoff).

B. Include best management practices ("BMPs") for construction site planning and management controls, vehicle tracking and dust controls, erosion and sediment controls, and non-stormwater and waste/material management controls, and spill prevention controls that are to be implemented year-round.

C. In accordance with Federal, State, and local regulations, it is unlawful to discharge pollutants from construction sites into the City's combined sewer system or other waterbodies within or adjacent to the site. Implement best management practices at all construction sites to minimize the discharge of pollutants into the combined sewer system pursuant to Section 146 of Article 4.2 of the Public Works Code (Construction Site Runoff Control).

D. This project will disturb at least 5,000 square feet as measured cumulatively and therefore obtain a Construction Site Runoff Control Permit from the San Francisco Public Utilities Commission Wastewater Enterprise, Collection System Division ("SFPUC-WWE/CSD").

E. Contractor shall be responsible for payment of all fines imposed due to any violations of the Permit requirements or violations of Article 4.2 of the Public Works Code – Construction Site Runoff, available at: https://codelibrary.amlegal.com/codes/san_francisco/latest/sf_publicworks/0-0-0-778

F. All work in this section shall be considered as incidental work to mobilization, unless noted otherwise.

G. ***Delete entire paragraph if project is entirely within the Combined Sewer. Also delete if project is within the Separate Sewer but is less than 1 acre:*** As this

project also involves greater than one acre of soil disturbing activities within the Separate Sewer Area, perform all Work under the State Water Resources Control Board's (SWRCB) General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (General Permit) Order Number (No.) 2009-0009-DWQ as amended by Order No. 2012-0006-DWQ (National Pollutant Discharge Elimination System [NPDES] No. CAS000002). See Section 01 57 23 - Stormwater Pollution Prevention, Erosion / Sediment Control.

H. ***Delete this entire paragraph and all its subparagraphs below if no work on Caltrans right-of-way:*** As work will also performed in a Caltrans right of way, comply fully with the Caltrans Stormwater Program and the Caltrans NPDES permit requirements, including but not limited to:

1. Construction General Permit, Order No. 2009-0009-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002.

2. Caltrans Stormwater permit, Order No. 2012-0011-DWQ, National Pollutant Discharge Elimination System (NPDES) Permit No. CAS000003.

3. Caltrans Construction Site Monitoring Program Guidance Manual: This manual also contains Construction Site Monitoring Program ("CSMP") requirements based on Caltrans Statewide Stormwater Management Plan ("SWMP"), (Caltrans, 2016), Caltrans Standard Specifications, Caltrans Standard Special Provisions.

I. ***Delete this entire paragraph and all its subparagraphs below if no work on property under Port of San Francisco jurisdiction:*** As work will also be performed on property under the Port of San Francisco's jurisdiction, comply fully with the Port's Stormwater Program, including but not limited to:

1. Implement the San Francisco Port Stormwater Pollution Prevention Program Minimum Control Measures for Small Construction Projects (https://sfport.com/sites/default/files/Business/Docs/Permit%20Services/Applications/MCM%20for%20Small%20Projects.pdf)

2. Submit a permit application and Erosion and Sediment Control Plan ("ESCP") to Anna Wallace, Regulatory Specialist, Port of San Francisco, at anna.wallace@sfport.com or other designee. Permit and ESCP applicant packages are at https://sfport.com/sites/default/files/Business/Docs/Permit%20Services/Applications/ESCP%20Application%20FINAL.pdf

3. See Port's website for more information: https://sfport.com/construction-storm-water-permits-and-procedures.

1.02 RELATED SECTIONS

A. Section 01 33 00 – Submittal Procedures

B. Section 01 35 43 – Environmental Procedures

C. Section 01 41 00 – Regulatory Requirements

D. ***Delete if not applicable per 1.01G above:*** Section 01 57 23 – Stormwater Pollution Prevention, Erosion / Sediment Control

E. Section 01 57 29 – Temporary Protection of Green Infrastructure Facilities

F. Section 01 57 30 – Protection of Adjacent Green Infrastructure

G. Section 31 23 19 – Dewatering

1.03 CONSTRUCTION SITE RUNOFF CONTROL PERMIT AND EROSION SEDIMENT CONTROL PLAN (ECSP)

A. As this project disturbs a cumulative area greater than 5,000 square feet, obtain a Construction Site Runoff Control Permit ("Permit") from the SFPUC-WWE/CSD. Find permit application at: https://sfpuc.org/programs/pretreatment-program/construction-site-runoff or obtain at the San Francisco Public Utilities Commission, Wastewater Enterprise, Collection System Division, 3801 3rd Street, Suite 600, San Francisco, telephone (415) 695-7339 or San Francisco Permit Center, 1660 Mission Street, San Francisco. Include in Permit application an Erosion and Sediment Control Plan ("ESCP").

B. Obtain the Permit no less than 14 calendar days prior to the commencement of any land-disturbing activities. The City will not honor any claims from Contractor arising from delays in obtaining the Construction Site Runoff Control Permit.

C. Comply at all times with provisions contained in the Construction Site Runoff Control Permit, which may include but not be limited to specific sampling, inspection, or reporting requirements.

D. Maintain a copy of the Construction Site Runoff Control Permit and its approved ESCP onsite at all times.

1.04 SUBMITTALS

A. In accordance with Section 01 33 00 – Submittal Procedures, submit the following documentation listed below.

1. Qualifications of the designated qualified person implementing the ESCP.

2. Construction Site Runoff Control Permit Application – First submit the permit application to the project City Representative for review and approval no less than 45 calendar days prior to the commencement of demolition and earthmoving activities. Upon approval by the project City Representative, submit the application to SFPUC-WWE/CSD (Eric Burton at EBurton@sfwater.org or designee). Upon Permit issuance from SFPUC-WWE/CSD, submit a copy of the permit to the project City Representative.

3. Erosion and Sediment Control Plan (ESCP) – First submit the ESCP to the project City Representative for review and approval no less than 45 calendar days prior to the commencement of demolition and earthmoving activities. Upon approval by the project City Representative, submit the ECSP to SFPUC-WWE/CSD (Eric Burton at EBurton@sfwater.org) along with the Construction Site Runoff Control Permit Application.

4. Copy of written approval from SFPUC-WWE/CSD allowing vegetation clearing, land grading, or any other soil-disturbing activities on projects with slopes 5% and greater to occur between October 15th and April 15 (the rainy season).

5. Self-inspection Checklists – Use form from SFPUC-WWE/CSD for stormwater inspections, available at https://sfpuc.sharefile.com/d-s11c9cae87f77431984fdabc478063125. Submit monthly. Make reports available upon request by the SFPUC Inspector or the City Representative.

6. Sampling results – Upon request by the City Representative, as warranted.

7. Certificate of Quarantine Compliance from the County Agricultural Commission documenting that hay, straw, or mulch used on the project has been inspected and is weed free.

1.05 QUALITY ASSURANCE

A. Employ a qualified person to develop the ESCP. For sites with slopes greater than 15%, a qualified person is defined as a Qualified Stormwater Developer ("QSD") (see https://www.casqa.org/resources/qsp-qsd-qualification). For sites with slopes less than 15%, a qualified person is defined as a QSD, or a Qualified SWPPP Practitioner ("QSP") (see https://www.casqa.org/resources/qsp-qsd-qualification), or a person certified as a Certified Professional in Erosion and Sediment Control™ ("CPESC") or a Certified Professional in Stormwater Quality™ ("CPSWQ") registered through Enviro Cert International, Inc., or other person with demonstrated experience as approved by the City Representative.

B. The qualified person shall oversee the ESCP, including worker training, implementation of all BMPs, erosion and sediment control measures, inspections, and its reporting requirements.

1.06 GENERAL REQUIREMENTS

A. Adhere to the requirements in the SFPUC Construction Site Runoff Control Technical Standards and Guidelines (February 2014) available at: https://sfpuc.org/sites/default/files/construction-and-contracts/design-guidelines/CSR_TechnicalStandardsGuidelines_2014.pdf.

B. Best Management Practices (BMPs): Implement BMPs consistent with:

1. SFPUC Construction Best Management Practices Handbook, available for download at: https://sfpuc.org/sites/default/files/construction-and-contracts/design-guidelines/CSR_BMPs_2013.PDF.

2. California Stormwater Quality Association's Construction Best Management Practice Handbook, available for purchase at: https://www.casqa.org/resources/bmp-handbooks/construction.

C. Continuously control surface and ground water at all times during the course of the construction, including Saturdays, Sundays, holidays, work stoppages, during periods of labor strikes, and during periods of work stoppages.

D. Do not discharge materials other than stormwater and approved non-stormwater discharges to the combined sewer system. Approved non-stormwater discharges include incidental discharges of potable water from irrigation of vegetative erosion control measures and water from dust control applications.

E. Contractor is advised that the SFPUC-WWE/CSD have the authority to order immediate ceasing of discharge(s) to the combined sewer system. Contractor is solely responsible for all costs associated with ceasing discharges, all costs for delay in operations, and any fines.

F. Should the existing wastewater (stormwater or non-stormwater discharges) be uncontaminated and subsequently become contaminated due to Contractor's operations, all costs related to satisfactory cleanup and disposal shall be the responsibility of Contractor. Such costs shall include re-design, re-construction, pretreatment and, sewer service permit, usage fee costs necessary to satisfy the above requirements.

G. Obtain a Batch Discharge Permit (https://sfpuc.org/programs/pretreatment-program/wastewater-discharge-permits) from the SFPUC (see also Section 31 23 19 – Dewatering, if applicable) for and prior to dewatering discharges, which include groundwater from excavations, water from truck washing activities, and water from the cleaning or testing of pipes or tanks.

H. Meet requirements related to Industrial Waste, Article 4.1 of the Public Works Code, for discharges to the City's combined sewer system.

I. Educate all on-site personnel, including subcontractor personnel, regarding the importance of protecting storm water quality. The qualified person designated to implement the ECSP and/or the Site supervisors shall conduct regular tailgate meetings to discuss pollution prevention.

1.07 EROSION AND SEDIMENT CONTROL PLAN REQUIREMENTS

A. Prepare ESCP in consideration of alterations to the site existing topography. Conform ESCP to Section 146.7 of the Construction Site Runoff Control Ordinance and include the below elements.

B. Site Conditions

1. Project name and Contractor name.

2. Name, address, phone number, email and qualifications of the qualified person designated to implement the ESCP.

3. Description of the current site condition and any site restrictions, limitations, or natural drainages as areas of focus for BMP implementation.

4. Vicinity map showing the location and perimeter of the project site and staging areas (both on and off-site) in relation to surrounding area's watercourse, water bodies, and other significant geographical features. Include parcel boundaries. Show existing and proposed roadways.

C. Project Description and Construction Activities

1. Brief narrative of the proposed project, nature and purpose of construction activities, description of the total square foot or acreage proposed land disturbing activities, map showing areas to be disturbed, and description of the construction schedule.

2. Highlight any serious considerations related to site planning and management (materials to be stored, waste to be handles).

3. List of other permits received for the project directly associated with water resources.

D. BMPs and Implementation Schedule

1. A narrative description of the erosion and sediment control BMPs that will be implemented at the site in consideration to construction sequence and schedules, including but not limited to the elements below.

a. Pre-Construction Actions: Before construction, evaluate, mark and protect unique areas surrounding the project site.

b. Construction Access: Stabilize bare areas (equipment parking areas, construction routes, site entrances) immediately with gravel and other means to control track out.

c. Sediment Barriers and Traps: Install basins, traps, silt fences or inlet protection as needed for grading.

d. Runoff Control: Install diversion, perimeter dikes and outlet protection as needed.

e. Land clearing and grading: Begin major clearing and grading after installing sediment and runoff measures. Clear disposal areas as needed.

f. Excavation and active construction: Implement measures to protect stockpiles and good housekeeping/spill controls.

g. Surface Stabilization: Apply temporary and permanent seeding, mulch, and sod for stabilization immediately on all disturbed areas where work is delayed or completed.

h. Building construction: Install necessary erosion and sediment controls while excavation, paving and installing utilities, and demolition.

i. Landscaping and final stabilization: Stabilize all open areas, including spoil areas. Remove temporary control measures and stabilize.

2. A narrative description of the good housekeeping/spill control measures that will be implemented at the site in consideration to schedule to prevent stormwater from becoming polluted by contact with other construction materials prior to discharge into storm drains such as raw/loose asphalt and concrete, concrete waste water, hazardous materials (i.e., paints, lubricants, fuel), and leaking equipment and spills.

E. Site Plan (plan view drawing or set of drawings)

1. Legend, north arrow, and scale of the drawing.

2. The site layout, construction site boundaries and, as applicable, a “limits of disturbance” line with the overall site to show the limit of soil disturbance and areas where existing vegetation will be preserved.

3. All streams and drainage ways, all storm drain inlets and outlets, and State and Federal wetlands, if any.

4. Area drainage and proposed direction of drainage channels.

5. Contours for the existing topography and proposed grading.

6. Locations and types of erosion and sediment control BMPs, as well as dewatering and soil stabilization controls, where applicable.

7. Stockpile locations, materials storage (e.g., trash, soil, fuel, construction materials, hazardous materials) and staging areas and good housekeeping/spill controls.

8. Location of vehicle/equipment wash and maintenance areas and good housekeeping/spill controls.

9. Location of entrances/exits to the project area and track-out controls.

10. Dewatering discharge points for construction wastewater (i.e., groundwater, stormwater, and dewatering byproducts and controls where applicable.

11. Locations of contaminated soils or groundwater.

12. Standard notes (see notes in Appendix 6.1 of the SFPUC (2013) Construction BMP Handbook).

F. Maintenance and Inspection

1. Summary of maintenance and inspection requirements for erosion and sediment control BMPs and for good housekeeping/spill controls.

2. Copy of the Self-inspection form to be used.

G. Spill Prevention and Response Procedures

1. Description of procedures to respond to spill of hazardous materials, including a list of key contacts responsible for spill response.

2. Statement that Contractor shall provide training to all personnel, including subcontractor personnel, on the spill response procedures.

H. Final Statements

1. Include a note that specifies that the SFPUC-WWE/CSD be notified 48 hours prior to the commencement of construction.

2. Include a statement that if there are (1) significant site changes or (2) there will be changes in the project components and methods, the Contractor will resubmit a revised ESCP to the City Representative for approval (1) within one week of the significant site changes or (2) before such changes occur.

3. Include the following statement: “Review and/or approval of the ECSP does not relieve Contractor from its responsibilities for compliance with

the requirements of the Construction Site Runoff Ordinance, nor does an approved ECSP relieve Contractor from errors or omissions of the approved plan."

4. Include a signed Contractor's Certification that states: "I certify under penalty of perjury that the information contained on the ESCP is accurate and true."

5. Include a signed Owner's Certification that states: "I, the undersigned, certify that all land clearing, construction, and development should be done pursuant to the approved plan." This must be signed in ink on each plan submitted or on an original reproducible.

6. Include the following note: "If the approved plan needs to be modified, the SFPUC may require additional sediment and stormwater controls." Implement modifications through the project City Representative."

I. Identify in ECSP that Contractor must obtain written approval from SFPUC-WWE/CSD allowing vegetation clearing, land grading, or any other soil-disturbing activities on projects with slopes 5% and greater to occur beyond October 15th. An extension requires meeting the below conditions. Contractor shall pay any associated fee.

1. Project is substantially complete;

2. Remaining work can be finished in a short period of time;

3. Completion of work will better stabilize the site;

4. BMPs identified in the ECSP have been installed prior to October 1st;

5. BMPs have been inspected by the City Representative and found to be adequate; and/or

6. Weather permits.

1.08 EROSION AND SEDIMENT CONTROL PLAN (ESCP) IMPLEMENTATION

A. Make Permit and ESCP available on site at all times.

B. Promptly remove and correct damage resulting from any soil, miscellaneous debris or other materials washed, spilled, tracked dumped or otherwise deposited on public streets, highways, sidewalks or other public thoroughfare, incident to the construction activity, or during transit to and from the construction site.

C. Contractor's qualified person shall review the ECSP and design of erosion and sediment control BMPs each year prior to the next rainy season (Oct 1 – April 15) and modify it as necessary.

D. Provide devices or locations necessary to conduct sampling or metering operations, if requested by the SFPUC Inspector or the City Representative.

E. Immediately notify the City Representative of any suspected, confirmed or unconfirmed release of sediments or other pollutants that create a risk of polluted stormwater or non-stormwater discharges into the combined sewer system or other waterbody.

F. Milestone notifications. Notify the City Representative at least two working days before the following milestones occur:

1. Start of construction.

2. Erosion and sediment control measures are completely installed.

3. Final grading has been completed.

4. Project completion.

G. Inspection, Maintenance and Repair Procedures

1. Qualified person(s) as defined above shall perform inspections.

2. Inspect BMPs in all disturbed areas, materials storage and staging areas, locations where vehicles enter and exit the site, and all catch basins, storm drains and inlets, and wherever else BMPs are used.

H. Schedule of inspections

1. October 1st through April 15th (rainy season): Inspect daily if performing clearing, grading, and excavating activities or inspect no less than weekly if performing any other activities.

2. April 16th through September 30th (dry season): Inspect no less than weekly for all activities.

I. Maintenance and Repair

1. Initiate any necessary modification to BMPs within 72 hours of identification and complete modifications as soon as possible thereafter.

2. During extended rain events, repair, replace, or add additional BMPs immediately if sediment-laden water or other potentially polluted construction water is being discharged from the site to storm drains, when safe to do so.

J. Inspection Report and Retention of Records

1. Use the Self-inspection Checklist provided at https://sfpuc.sharefile.com/d-s11c9cae87f77431984fdabc478063125 for both the daily and weekly inspections.

2. Keep inspection reports at the job trailer so that during an inspection, they can be shown to the SFPUC Inspector and City Representative.

3. Submit copies of the inspection reports monthly.

1.09 MINIMUM BEST MANAGEMENT PRACTICES (BMPS) REQUIREMENTS

A. Management of Construction Materials

1. Cover and berm stockpiled construction materials that are not actively being used. Place stockpiles a minimum 50 feet away from concentrated flows of stormwater, drainage courses, and inlets.

2. Protect stockpiles with a temporary linear sediment barrier berm prior to the onset of precipitation. During the rainy season, protect all stockpiles from stormwater runoff by completely covering them and keeping the perimeter barriers around at all times.

3. Store chemicals in watertight containers with appropriate secondary containment to prevent any spillage or leakage or in a storage shed (completely enclosed). Also store chemicals and any other hazardous materials properly labelled and pursuant to manufacturer's recommendations.

4. Minimize exposure of construction materials to precipitation. This excludes materials and equipment that are designed to be outdoors and exposed to environmental conditions (e.g, poles, equipment pads, cabinets, conductors, insulators, bricks, etc.).

5. Provide for continuous misting of water using hoses on the project, and on roads and other areas immediately adjacent to the project limits, wherever traffic or buildings that are occupied or in use, are affected by dust caused by hauling or other operations. The materials and methods used for water laying shall be subject to the approval of the City Representative.

6. Provide for prompt and daily proper removal from existing roadways of all dirt and other materials that have been spilled, washed, tracked, or otherwise deposited thereon by Contractor's hauling and other operations.

7. Only use cold patch asphalt for smoothing around trench plates. Do not use cold patch asphalt in any way to prevent stormwater from entering the work area or to intercept and direct stormwater around the work area.

B. Rainstorm BMPs

1. During the rainy season, keep all paved areas clear of earth material and debris. Maintain site to minimize sediment runoff to any storm drain system.

2. During periods when storms are forecast:

   a. Do not place excavated soils in streets or on paved areas.

   b. Remove any excavated soils from the site by the end of the day when feasible.

   c. Where stockpiling is necessary, use a tarpaulin or surround the stockpile material with fiber rolls, gravel sediment barrier, silt fence or other runoff controls.

   d. Use inlet controls as needed (e.g., block gravel sediment barrier from storm drain adjacent to the project or stockpiled soil).

3. Alert stand-by crews for emergency work during rainstorms. City Representative may also alert Contractor's stand-by crews.

4. After October 1st through April 15th, inspect all erosion control measures daily and after each storm. Repair BMPs at the close of each day and whenever rain is forecast.

5. Stockpile gravelbags (no sandbags) on site and place at intervals shown on erosion control plans when the rain forecast is 40% or greater or when directed by the City Representative.

6. After rainstorms, check for and remove sediment trapped by gravel bags, fiber rolls, silt fence or any other sediment control. Replace sediment controls if deterioration is evident.

7. Avoid paving during the wet season. Do not apply seal coat, tack coat, slurry seal or fog seal during rain.

C. Waste Management BMPs

1. Prevent disposal of any rinse or wash waters or materials on impervious or pervious site surfaces or into the combined sewer system.

2. Remove sediment and trash accumulated in drainages or detention basins as soon as possible. In addition, skim oil and material floating on water surfaces immediately and properly dispose of the debris.

3. Ensure the containment of sanitation facilities (e.g., portable toilets) to prevent discharges of pollutants to the combined sewer system. Place them away from storm drains, anchor them to the ground, and provide

secondary containment. Licensed waste material handlers must service portable sanitary facilities regularly enough to prevent exceeding their capacities.

4. Clean or replace sanitation facilities and inspect them regularly for leaks and spills.

5. Cover waste disposal containers at the end of every business day and during a precipitation event.

6. Prevent discharges from waste disposal containers to the combined sewer system.

7. Contain and securely protect stockpiled waste material from wind and rain at all times unless actively being used.

8. Implement procedures that effectively address hazardous and non-hazardous spills.

9. Utilize spill response procedures that include: providing equipment and materials for cleanup of spills on site, so that spills and leaks may be cleaned up immediately and properly disposed, and assigning and training appropriate spill response personnel.

10. Ensure the containment of concrete washout areas and other washout areas that may contain additional pollutants so there is no discharge into the underlying soil and onto the surrounding areas or into storm drains or waterbodies.

11. Vacuum the slurry generated from saw cutting operations so there is no discharge into the underlying soil, storm drains or waterbodies.

12. Collect and remove all grindings and wastes from removal of pavement as work progresses. Cover materials and wastes associated with paving with plastic.

13. Drill cuttings, excess water from the drilling process, and other drilling byproducts shall be contained within secondary containment at the work site and hauled off site for disposal each day. Such material may be temporarily stored at staging areas contained within a closed dumpster.

14. Wash/clean out paint brushes, spray guns, and other tools into a hazardous materials barrel or original container. Do not wash out such tools in a manner that would allow wash water to enter a storm drain or other waterbody.

D. Vehicle Storage and Maintenance BMPs

1. Prevent oil, grease, fuel, chemicals, or other waste from leaking into the ground, storm drains, and catch basins.

2. Place all equipment or vehicles, which are to be fueled, maintained and stored in a designated area fitted with appropriate BMPs.

3. Monitor on-site vehicles for leaks. Use drip pans used where there are leaks and repair the leaky equipment as soon as possible. Drain drip pans containing oil into waste oil drums on a regular basis. City Representative may require contractor to remove equipment that continues to leak despite maintenance.

4. Ensure safety of vehicles operating in roadway(s) adjacent to erosion control facilities.

E. Vehicle Tracking and Dust Control

1. Implement BMPs to prevent the off-site tracking of loose construction and landscape materials.

2. Stabilize all entrances/exits to prevent the tracking of soils and sediment from leaving the construction site. BMPs may include installation of a rock pad or a construction mud mat, which shall be designed to support the heaviest and widest equipment entering the project site. Anchor mud mats to the adjacent surface. Size length of rock pads 15 meters minimum or four times the circumference of the largest construction vehicle tire, whichever is greater. Use crushed aggregate that is greater than 3 inches but smaller than 6 inches and provide an 8” minimum thickness for the full width of the entrance/exit. Replace aggregate when it becomes worn and is no longer effective.

3. Grade construction entrances/exits to prevent runoff from leaving the site. Direct all runoff from the access through a sediment-trapping device prior to discharge.

4. Stabilize construction roadways. Provide a surface cover, i.e., gravel, for roadways exceeding 15 percent slope.

5. Remove sediment and any other materials that have been spilled, washed, tracked, or otherwise deposited on roadways daily. Use only wet vacuum sweepers.

6. As decided by the Contractor or where mud mats and rock pads are deemed inadequate by the City Representative (e.g., regular and significant sediment deposition off site), additionally install a tire wash.

7. Dust Control: Employ construction methods and means that will keep airborne dust to the minimum to prevent track out. These may include but not be limited to spraying with a water truck, covering stockpiles, and applying a cover to exposed soil areas (e.g., tackifier, mulch, gravel).

F. Erosion and Sediment Control BMPs

1. Temporary sediment barriers such as silt fences, berms, dikes, fiber rolls, gravel bags or straw bale barriers. Install these barriers at the locations with potential erosion and to the limits shown on the approved ESCP and as otherwise directed by the City Representative. Relocate them as necessary for construction operations, with prior approval from the City Representative. Remove sediment from behind sediment controls no later than when the sediment accumulation reaches one-third (1/3) barrier height. Remove the temporary barriers at the end of the project.

2. Install and maintain silt dams (or check dams) on public streets to prevent sediments from flowing into storm drain inlets and public streets. Protect storm drain inlets by surrounding the inlets with BMPs such as fiber rolls or filters media, silt fence, and gravel bags, appropriate to the type of inlet and traffic and as approved by the City Representative.

3. Use erosion Control Blankets to control to stabilize disturbed and exposed soil, if weather warrants such blankets.

4. Install silt fencing at the foot of the slope of the slope around the entire perimeter of the stockpiled soil.

5. Install V-ditches and silt traps/sediment traps at the perimeter of the stockpile to collect runoff where necessary to allow flow to continue to storm drain inlets.

6. As part of the erosion control measures, complete installation of underground storm drain facilities as shown on the improvement plans where designed for this project.

7. Protect borrow areas and temporary stockpiles with appropriate erosion control measures to the satisfaction of the City Representative.

8. If existing driveway is removed during construction, place drain rock as a gravel roadway (8” minimum thickness for the full width and length of site egress area as defined in the ESCP or contract drawing) at the entrance of the site.

9. Prior to seeding, roughen/scarify and decompact soils to facilitate germination.

G. Dewatering

1. Conduct dewatering operations in a manner that removes sediment and other pollutants prior to discharge into the sewer system, such using dewatering tanks or sediment filter bags. Obtain a Batch Permit from SFPUC-WWE/CSD prior to dewatering to the sewer. See Section 01 35 43 – Environmental Procedures and Section 31 23 19 – Dewatering.

1.10 SPILL PREVENTION AND RESPONSE PROCEDURES

A. Minimize the potential for spills of pollutants stored onsite. Minimize leaks and spills, and if observed or caused, clean them up immediately and institute preventive measures.

1. Be aware of potential spill areas and drainage routes in work areas.

2. Keep containers closed at all times except when transferring contents. Keep materials, including paints, drill lubricants, oils, fuels, stucco, and other construction materials properly labeled, pursuant to manufacturer's recommendations, and in secondary containment.

3. Do not attempt to carry or move heavy containers of oil or hazardous materials.

4. Use funnels, pumps with closed hose systems, or other means to prevent spills while transferring material from large containers to small ones. Do not leave pumps in operation left on, unattended.

5. Store hazardous materials in a designated area that is away from vehicle/traffic areas.

6. Immediately notify the supervisor of any spill. It is the responsibility of Contractor's designated Safety Officer to direct the cleanup activities and contact necessary regulatory agencies. Post all necessary emergency telephone numbers at the construction site at a location accessible to all personnel.

7. Know the proper methods to clean up small spills in their work areas, and how spent cleanup material shall be managed and disposed of.

8. Contractor's designated qualified person shall record all steps taken to control spills in the daily inspection checklist.

9. Keep spill cleanup equipment readily available on site. Emergency response equipment includes absorbent socks, over pack drums, personal protective equipment, shovel, labels, valves, valve charts, valve wrenches to shut off water supply, etc.

10. Provide secondary containment for all hazardous materials while used at the work site. See Part 2 – Products below for acceptable secondary containment products. The height of the containment wall or dike shall be no less than 12 inches. Clear secondary containment of water, sediment, or other construction material prior to any forecast storm and after storms. If water is suspected of being contaminated (e.g., equipment has been leaking, there is an odor, stained soil or sheen), dispose the water/soil off-site as a hazardous waste.

PART 2 – PRODUCTS

2.01 PRODUCT LIST

A. Store adequate quantities of BMP materials on-site at all times for installation as needed.

B. Silt fence: Geotextile fencing made of woven monofilament polypropylene geotextile material. Bury fence to a depth of 6 inches and extend no less than 36 inches above ground.

C. Fiber or sediment rolls shall be certified, weed-free and shall be free of plastic monofilament netting or mesh. Netting or mesh shall consist of natural/biodegradable fibers.

D. Manufactured berms for secondary containment such as ENPAC Snap Wall Containment Berm, the ENPAC® Stinger Berm™, the CONDOR Spill Containment Berm, the ULTRATECH Economy Model Berm, the BLACK DIAMOND Snap-Up Containment Berm or, contained as approved by the City Representative, equivalent constructed secondary containment with berms and lined with a material resistant to the properties of the hazardous material being used.

E. Keep hydrocarbon detection strips onsite to screen for presence of hydrocarbons in water such as or equivalent to those available at: https://www.ciagent.com/wastewater-dewatering-and-filtration/hydrocarbon-detection-strips-oil-testing/.

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 57 23

STORMWATER POLLUTION PREVENTION, EROSION/SEDIMENT CONTROL

There is no Scenario #1 boilerplate at this time. Refer to Scenario #3 and customize for your project early in the Design Phase. At 95% Design, it is already very late to start with a boilerplate Scenario #1.

END OF SECTION

SECTION 01 57 29

TEMPORARY PROTECTION OF GREEN INFRASTRUCTURE FACILITIES

PART 1 – GENERAL

1.01 SUMMARY

A. This Section specifies the general requirements for providing temporary protection of green infrastructure ("GI") facilities before, during, and after construction.

B. GI facilities are certain surface or subsurface facilities such as, but not limited to bioretention planters, subsurface systems, and permeable pavement that are designed to receive and then detain, retain, and/or infiltrate stormwater runoff.

C. Requirements in this section include temporary erosion & sediment ("E&S") controls, diversion of flows and protection of infiltration areas.

1.02 RELATED SECTIONS

A. Section 01 56 39 – Temporary Tree and Plant Protection

B. Section 01 57 14 – Construction Site Runoff Control Requirements

C. Section 01 57 23 – Stormwater Pollution Prevention, Erosion/Sediment Control

D. Section 01 57 30 – Protection of Adjacent Green Infrastructure

E. Section 01 71 33 – Protection of Adjacent Construction

F. Section 31 23 00 – Excavation and Fill

G. Section 32 01 90 – Operation and Maintenance of Planting

1.03 DEFINITIONS

A. Bioretention Planter: Vegetated bed or basin that receives stormwater inflow (through curb cuts, pipe outfall, or similar) to provide flow control and water quality treatment.

B. Erosion and Sedimentation Best Management Practices ("E&S BMPs"): Facilities, measures or procedures used to minimize accelerated erosion and sedimentation and manage stormwater to protect, maintain, reclaim and restore the quality of stormwater runoff before, during, and after earth/soil disturbance activities.

C. Permeable Pavement: Paving system that reduces surface stormwater runoff via infiltration either through the paving material or through void spaces between individual paving blocks.

D. Subsurface System: A subsurface infiltration system is an underground stormwater storage structure that receives inflow through sub-surface piping. Also known as a dry well, stormwater drainage well, stormwater injection well, infiltration gallery or seepage pit. This facility stores stormwater in subsurface void spaces and slowly filters through the bottom of the trench into the native soil or is stored for later reuse.

E. Pretreatment System: A structure that separates coarse sediment and floatables (trash, debris, and, in some instances, oil) from stormwater before it enters a GI facility.

F. Soil Buffer Layer: Layer of native soil left in place within the footprint of a GI facility during construction of planter walls, curbs, gutters, flush concrete bands, and adjacent pavement in order to minimize subgrade compaction and the introduction of construction fines, sediment, and debris to the subgrade prior to placement of stone base, reservoir layers, and soil filter mix.

G. Soil Filter Mix: Engineered soil for backfill in bioretention basins designed specifically for infiltrating and cleansing stormwater.

1.04 GENERAL REQUIREMENTS

A. Coordinate the work of this section with the work of Section 01 57 13 Temporary Erosion and Sediment Control.

B. The Contractor shall implement E&S BMPs at the location of all GI facility construction areas to eliminate the discharge of sediment and pollutants into the GI facilities' infiltration area or onto the infiltration surfaces. The Contractor shall also implement E&S BMPs within larger GI facilities during construction to prevent erosion and the creation and transport of sediment within the facility footprint (for extended linear GI facilities such as permeable paver parking strips, etc.).

C. The Contractor shall implement surface flow diversion practices at the location of subsurface system, permeable pavement, and bioretention areas to eliminate the inundation, flooding, and conveyance of silt, sediment, and other types of contamination into/onto the infiltration areas and infiltration surfaces both during and immediately after construction. Design and install the surface flow diversions to divert runoff from adjacent surfaces to maintain an offline condition for newly constructed Green Infrastructure features. The surface flow diversion measures shall remain in place until all upstream construction is complete, adjacent surfaces are stabilized and cleaned, and all bioretention area plantings are established in a "rooted-in" condition.

D. The Contractor shall maintain a Soil Buffer Layer within the footprint of all infiltrating GI facilities following demolition of existing pavement, and throughout construction of outflow structures and piping, wall structures and permeable pavement ribbon curbs, and curbs/gutters. Soil buffer layer shall remain in place until all adjacent and upstream construction is complete, and adjacent surfaces are stabilized and cleaned. Upon completion of adjacent and upstream construction, remove soil buffer layer and excavate to full subgrade depth, and then immediately place stone base, reservoir layers, and soil filter mix.

E. Educate on-site personnel and maintain awareness of the importance of protecting GI facilities during construction. Site supervisors or the site safety representative shall discuss GI facility protection at the regular tailgate meetings conducted in accordance with the SWPPP or Erosion and Sediment Control Plan ("ESCP") to discuss site erosion and sediment control.

1.05 SUBMITTALS

A. In accordance with requirements of this Specification Section, the Contractor shall prepare and submit for approval the following documents within 30 days after the Notice to Proceed. These documents must be approved by the City Representative prior to initiation of any ground disturbing activities that may affect any existing GI facility.

1. GI Protection Plan: The City may require this document be prepared by a Qualified SWPPP Developer or Qualified SWPPP Practitioner. If this contract requires an ESCP or SWPPP, the GI Protection Plan will serve as a supplement to the those documents.

2. GI Protection Schedule: Describes which E&S BMPs will be deployed as well as where and when they will be installed, adjusted, and removed.

B. The Contractor shall be paid per the applicable bid item. If no such bid items exist, the preparation of the GI Protection Plan and GI Protection Schedule and for executing the erosion control measures shall be included within the Total Bid Price (refer to Section 00 41 10), and the City will make no separate measurement or payment for such work.

C. The GI Protection Plan shall be prepared in accordance with the following outline:

1. Clearly identify all Green Infrastructure facility areas to be protected during construction and the locations and types of E&S BMPs that will be installed to provide protection.

2. Following construction of each Green Infrastructure facility, clearly identify the locations and types of E&S BMPs that will be installed to provide protection through the plant establishment period and substantial completion of overall construction.

3. Identify all potential sediment sources and other pollutants (both permanent and temporary).

4. Identify the areas of likely concentrated flow.

5. Identify responsibilities of implementation and maintenance activities for each facility.

6. Provide a chain of responsibility, or allow for the City Representative to define the chain of responsibility between the City, general contractor, subcontractors, and vendors. Chain of responsibility shall identify which parties are responsible for which aspects of the maintenance and protection of each GI facility throughout the duration of construction.

7. Identify all temporary protection practices that may include:

   a. Installation and maintenance of perimeter controls

   b. Construction phasing

   c. Vehicle tire mud tracking control

   d. Temporary soil stockpile protection

   e. Temporary aggregate stockpile protection

   f. Soil Buffer Layer

   g. GI facility inlet diversions

   h. Flow diversion around GI facilities

8. Provide flow line elevations at flow diversion locations, indicating that positive drainage is being maintained.

D. The GI Protection Schedule shall be prepared in accordance with the following outline:

1. Provide beginning and end dates for construction and protection of each Green Infrastructure facility area.

2. Provide dates for each Green Infrastructure area indicating when construction E&S BMPs will be removed and replaced with post-construction E&S BMPs. Post-construction E&S BMPs will remain in place through the plant establishment period and substantial completion of overall construction.

PART 2 – PRODUCTS

2.01 GEOTEXTILE FABRIC (SILT FENCE AND FILTER FABRIC)

A. The physical properties of the geotextile for silt fence and filter fabric shall be as follows: weight 3 oz/yds, thickness 15 mils, grab tensile strength 100 lb, grab elongation 20%, mullen burst 235 min, trapezoidal tear 50 min, ultra-violet stability >90% strength retained, permeability-k 0.01 em/sec, and apparent opening size -50 test value.

2.02 PLASTIC SHEETING

A. Plastic sheeting shall be a minimum of 10-mil polyethylene sheeting and shall be free of holes, tears or other defects that compromise the impermeability of the material. Plastic sheeting is intended to protect material stockpiles and completed GI work from inundation and sediment deposition.

2.03 SANDBAGS / GRAVEL BAGS

A. Sandbags / gravel bags shall be woven polypropylene, polyethylene or polyamide fabric, minimum unit weight 4 oz/yd2, mullen burst strength exceeding 300 psi in conformance with the requirements in ASTM designation D3786, and ultraviolet stability exceeding 70% in conformance with the requirements in ASTM designation D4355. Use of burlap is not acceptable. All sandbag / gravel bag fill material shall be non-cohesive, Class 1 or Class 2 permeable material free from clay and deleterious material, conforming to the provisions in Standard Specifications Section 68-1.025 “Permeable Material.” Where applicable, place sand bags / gravel bags to provide flow diversion around the GI installation.

2.04 ROCK SOCK

A. Rock socks are constructed of gravel that has been wrapped by wire mesh or a geotextile to form an elongated cylindrical filter. Where applicable, place rock socks typically either as a perimeter control or as part of inlet protection. When placed at angles in the curb line, rock socks are typically referred to as curb socks. Where applicable, use rock socks to trap sediment from stormwater runoff that flows onto roadways as a result of construction activities and to avoid sediment from being deposited in GI installations.

2.05 COMPOST FILTER SOCK

A. Filter socks are three dimensional tubular devices used to trap the physical, chemical, and biological pollutants in stormwater. Where applicable, use during the GI construction phase to act as temporary filters to protect GI facilities, inlets and to provide perimeter controls. The physical properties of the filter sock netting shall be as follows: 5mm thick continuous HDPE filament, 12-in. diameter tubular knitted mesh with 3/8-in. openings.

2.06 ERTEC EDGE GUARD (OR EQUIVALENT)

A. A temporary sediment barrier made of high density polyethylene (HDPE) containing an integrated filter. Where applicable, before the start of construction, place the barrier along the perimeter and curb of GI facilities to eliminate sediment deposition. Edge Guard is used to intercept sediment and mulch laden water and prevent the sediment, mulch and associated pollutants from entering the GI installation, street and the storm drain system. The system reduces the velocity of water and allows it to flow-through, discouraging end-around flows, under and overflow.

2.07 ERTEC S-FENCE (OR EQUIVALENT)

A. A temporary sediment barrier made of high density polyethylene (HDPE) containing an integrated filter. Where applicable, before start of construction, place the device along the perimeter and curb of GI facilities to eliminate sediment deposition. S-Fence intercepts and filters sediment laden water and significantly reduces the sediment and associated pollutants that would otherwise be deposited on or in GI installations and reach the storm drain system. The system reduces the velocity of water and allows it to flow-through, discouraging end-around flows, underflow, and overflow.

2.08 ERTEC PROWATTLE (OR EQUIVALENT)

A. A water velocity interruption device for slope stabilization or a temporary perimeter sediment barrier with a hinged flap at the bottom made of high density polyethylene (HDPE) containing an integrated filter. Where applicable, place this device along the perimeter and curb of GI facilities to eliminate sediment deposition. ProWattle is used to intercept sediment laden water and the associated pollutants from entering the GI installation, street and the storm drain system. The system reduces the velocity of water yet allows it to flow-through, discouraging end-around flows, under and overflow. Use ProWattle along the inside and outside perimeters of a construction project or around temporary stockpiles.

2.09 DIVERSION/BYPASS PIPING

A. Diversion/bypass piping is for bioretention planters that have outlet structures located within the planter. Where necessary, install temporary piping to convey surface flows to existing catch basin inlet or outlet structure, either within the GI facility or downstream of the GI facility.

PART 3 – EXECUTION

3.01 GENERAL

A. Inspect erosion and siltation control devices and provide corrective measures for deficiencies 24 hours prior to a forecasted rain and immediately after each rainfall, and at least daily during prolonged rainfall. Deficiencies shall be corrected immediately. If the Contractor fails to correct or take appropriate actions to remedy the specified deficiencies, the City Representative will require Contractor to discontinue work in other areas and concentrate efforts toward rectifying the specified deficiencies. The City reserves the right to remedy the specified deficiencies and deduct the entire cost of such work from monies due Contractor.

B. The GI Protection Plan may utilize plans, details, notes, and other information provided in the construction documents; however, such information shall not, in itself, be construed to meet the requirements of this Section 01 57 29. Observe firsthand the conditions of the site and then provide additional detail to ensure that the measures implemented accurately reflect the Contractor's means and methods for construction, to include: construction sequencing, site layout, construction access, temporary facilities, specific sedimentation, erosion and runoff discharge controls, and project organization.

3.02 PERIMETER CONTROLS

A. Provide perimeter controls to protect off site areas, natural resource features, and GI facilities from disturbances that generate sediment-laden runoff and compaction from vehicle traffic. Drip lines of trees, soil and aggregate stockpiles, and infiltration areas are a few of the key features that Contractor must protect to prevent sedimentation and soil compaction during the GI construction process. Provide perimeter controls through the entire GI construction and acceptance process, even after pavement is in place. Until the site is stabilized and vehicle tracking and deposition of sediment from upstream sources is no longer an issue, protect GI facilities and keep off line.

B. Prevent water and sediment from entering the GI facility excavation or backfill materials. Should runoff enter the work area or backfill materials, remove and dispose of all accumulated sediment and silt and the contaminated backfill materials. Re-establish acceptable compaction and void ratio specified for last layer before proceeding with operations.

3.03 E&S BMP INSTALLATION

A. During Construction – E&S BMPs are required for each green infrastructure area while construction is underway. Provide flow diversion throughout the duration of construction of each Green Infrastructure facility.

1. Use E&S BMPs to protect Green Infrastructure facility construction areas.

2. Direct flow around Green Infrastructure facility construction areas to avoid introduction of flows and sediment during construction.

3. Place flow diversion E&S BMPs to avoid creating ponding at local low points.

4. Install diversion/bypass piping to re-route flows around Green Infrastructure facilities where surface flow diversion is not possible.

B. Post Construction – Upon completion of construction of each green infrastructure facility, E&S BMPs continue to be necessary but the limits of the protected area may change. Provide flow diversion through substantial completion of construction and the plant establishment period, until all adjacent and upstream areas are paved and stabilized.

1. Reduce extent of E&S BMPs in the vicinity of completed Green Infrastructure facilities.

2. Locate E&S BMPs to block all GI facility inlets and to direct surface runoff to adjacent downstream catch basins.

3. Install diversion/bypass piping to re-route flows around Green Infrastructure facilities where surface flow diversion is not possible.

4. Leave underdrain valves open during post-construction period, where applicable.

5. Perform acceptance flow testing after initial plant establishment period (3 months).

3.04 BIORETENTION FACILITIES

A. Protect subgrade with a soil buffer layer which shall remain in place until all adjacent and upstream construction is complete, and adjacent surfaces are stabilized and cleaned. Remove soil buffer layer and excavate to full subgrade depth upon completion of adjacent and upstream construction, and then immediately place stone base, reservoir layers, and soil filter mix.

B. Protect bioretention areas and plants against damage during the plant establishment phase.

C. Maintain all temporary fences, sand / gravel bags, barriers, silt screens, and signs as required for protection.

D. The Contractor shall rehabilitate any bioretention basin soil that is damaged through sediment loading and fails to meet the minimum infiltration rates listed in Section 32 19 13 or as directed by the City Representative at no additional cost to the City.

E. Do not allow stormwater to enter the bioretention basin during construction and staging, thereby reducing impacts on the subgrade, aggregate storage layers, and soil filter mix from high sediment loads associated with construction.

F. Block all inlets to bioretention facilities using sand / gravel bags or equivalent, silt screens and diversion/bypass piping to eliminate inflow of stormwater and sediment into the bioretention basin. Sand / gravel bags, screens and diversion/bypass piping shall remain in place until all construction and staging upstream is complete and plants are established.

G. If a bioretention facility receives runoff from the site and therefore is contaminated with sediments, remediate the facility. Remediate the facility by excavating all soil filter mix and aggregate and overexcavating sub-grade by at least six inches (or as existing utilities allow). Dispose of excavated material and replace with approved soil filter mix and aggregate. Machinery shall not be used within the basins in order to avoid compaction.

H. Block inlets to off-line bioretention basins.

I. Provide temporary diversion for on-line bioretention basins.

J. Rapidly stabilize cut side-slopes and surrounding areas.

3.05 SUBSURFACE SYSTEMS

A. Protect subgrade with a soil buffer layer which shall remain in place until all adjacent and upstream construction is complete, and adjacent surfaces are stabilized and cleaned. Remove soil buffer layer and excavate to full subgrade depth upon completion of adjacent and upstream construction and then immediately place ***bedding and storage aggregates and storage structures (as applicable)***.

B. Protect subsurface system inlets and pretreatment systems from sediment deposition as a result of adjacent construction related activities.

C. Maintain temporary fences, sand bags, barriers, silt screens, and signs as required for protection of inlets and pretreatment systems.

D. Rehabilitate any subgrade and subsurface system storage aggregates that are damaged through sediment loading.

E. Do not allow stormwater to enter the subsurface system during construction and staging, thereby reducing impacts on the subgrade, aggregate storage layers, and storage structures from high sediment loads associated with construction.

F. Block all inlets to the subsurface system using sand bags or equivalent; silt screens; and diversion/bypass piping, to eliminate inflow of stormwater and sediment into the subsurface system. Sand bags, screens, and diversion/bypass

piping shall remain in place until all construction and staging upstream is complete and, where applicable, the disturbed upstream areas are stabilized.

G. If a subsurface system receives runoff from the site and therefore is contaminated with sediments, remediate the system. Remediation consists of excavating all storage aggregate and over-excavating sub-grade by at least six inches (or as existing utilities allow) for aggregate filled systems. For vault type systems, remediation consists of removing accumulated sediment by hand; pressure washing the inside of all vault structures; and removing the waste water, sediment and, debris by vacuuming. Dispose of excavated material and replace with approved aggregate. Machinery shall not be used within the basins in order to avoid compaction.

H. If a subsurface pretreatment system (drain inserts, catch basins, sump inlets, sand traps, vortex separators, etc.) receives runoff from the site and therefore is contaminated with sediments, remediate the system. "Remediate" consists of removing accumulated sediment by hand; pressure washing the inside of all pretreatment structures; and removing the waste water, sediment, and debris by vacuuming.

I. Rapidly stabilize cut side-slopes and surrounding areas.

3.06 PERMEABLE HARDSCAPE

A. Protect subgrade with a soil buffer layer which shall remain in place until all adjacent and upstream construction is complete and adjacent surfaces are stabilized and cleaned. Upon completion of adjacent and upstream construction, remove soil buffer layer and excavate to full subgrade depth and immediately place stone base and reservoir layers.

B. Install perimeter controls to keep area where pavement is to be constructed free from sediment during entire job.

C. Pressure wash and vacuum sediment-contaminated and clogged permeable pavement surfaces.

1. Remove and replace clogged permeable pavement surfaces if pressure washing and vacuuming is not successful at restoring permeability.

D. Remove and replace sediment-contaminated bedding/leveling materials with clean materials, where applicable.

E. Remove and replace sediment-contaminated base materials with clean materials.

F. Remove and replace sediment-contaminated subbase materials with clean material, where applicable.

G. Remove and replace sediment-contaminated filter fabric materials with clean materials, where applicable.

H. If a permeable hardscape area receives runoff from the site and therefore is contaminated with sediments, remediate the area. Remediate by excavating all aggregate and overexcavating sub-grade by at least 6 inches (or as existing utilities allow). Dispose of excavated material and replace with approved aggregate. Machinery shall not be used within the facility footprint in order to avoid compaction.

I. After work in this section is complete, the Contractor shall be responsible for protecting work from sediment deposition and damage due to subsequent construction activity on the site.

J. Keep all construction equipment off permeable pavement areas throughout construction - sediment tracking can clog permeable pavement.

3.07 ERTEC EDGE GUARD OR ERTEC S-FENCE (OR EQUIVALENT)

A. ERTEC Edge Guard or ERTEC S-Fence shall be installed at the locations and to the limits shown on the approved GI Protection Plan and as otherwise directed by the City Representative.

B. The Contractor shall maintain the alignment and condition of the Edge Guard or S-Fence, as necessary, throughout its use on the project. Upon reaching final completion and/or at the direction of City Representative, the Contractor shall remove the Edge Guard or S-Fence from the project.

C. If required by construction activities as determined by City Representative, relocate Edge Guard or S-Fence as necessary.

3.08 ERTEC PROWATTLE (OR EQUIVALENT)

A. ERTEC ProWattle shall be installed at the locations and to the limits shown on the approved GI Protection Plan and as otherwise directed by the City Representative.

B. The Contractor shall maintain the alignment and condition of the ProWattle as necessary, throughout its use on the project. If flattened by equipment drive-overs, reshape to vertical immediately. Upon reaching final completion and/or at the direction of City Representative, the Contractor shall remove the ProWattle from the project.

C. If required by construction activities and as approved by the City Representative, the ProWattle shall be relocated as necessary.

D. Inspect ProWattle following rainfall events and at least daily during prolonged rainfall.

3.09 SANDBAG / GRAVEL BAG DIVERSION

A. Install sandbag / gravel bag diversions at the locations and to the limits shown on the approved GI Protection Plan and as otherwise directed by the City Representative.

B. Install sandbag / gravel bag diversions to exclude stormwater runoff from entering the work areas and the permeable pavement and bioretention infiltration areas.

C. Where necessary, Contractor must begin sandbag / gravel bag diversion upstream of the GI facility such that positive drainage can be maintained from the flowline of the gutter, along the sandbag diversion, and around the GI facility.

D. Where positive drainage cannot be maintained around GI facility, install diversion/bypass piping to re-route flows around Green Infrastructure facilities.

E. Do use sandbag / gravel bag diversions in locations where they will encroach on travel lanes or block sidewalk access without approval by the City Representative.

3.10 SITE HOUSEKEEPING

A. Contractor shall be responsible for cleaning the contributing area and areas immediately upstream of the GI facility installations of all silt, sediment, and debris during construction, and where applicable, during the post-construction establishment period.

END OF SECTION

SECTION 01 60 00

PRODUCT REQUIREMENTS

PART 1 – GENERAL

1.01 SUMMARY

A. This Section describes the requirements for the proper handling, storage and protection of project materials and equipment.

B. Information related to the purchase of equipment to achieve LBE subcontracting requirements, if applicable, is also presented in this Section.

C. Related Documents and Sections

1. Section 01 33 00 – Submittal Procedures

1.02 PRODUCTS

A. Material and equipment incorporated in the Work shall be new, unless otherwise specified or indicated; in a condition acceptable to the City Representative; and suitable for the use intended.

B. No material or equipment shall be used for any purpose other than that for which it is designed, specified or indicated.

1.03 QUALITY CONTROL

A. Include within the Contractor's quality control program procedures for full protection of materials and equipment in accordance with manufacturer's recommendations.

1.04 QUALITY ASSURANCE

A. The City Representative may perform quality assurance sampling and testing on materials to be incorporated into the work. The City Representative may use test results from the Contractor's quality control efforts to determine acceptability of materials, rather than perform additional and separate testing of materials and equipment. Sampling and testing performed at the City Representative's discretion may not be used by the Contractor as part of the Contractor's responsibility for quality control.

B. When requested by the City Representative, the Contractor shall furnish, without charge, samples of materials entering the work. No material shall be used prior to approval of the City Representative. Samples shall be taken in the presence of the

City Representative. The number of the samples and test specimens required shall be entirely at the discretion of the City Representative.

C. Reports and records of inspections made and tests performed by the city, when available at the site of the work, may be examined by the Contractor.

D. The City Representative shall have access to materials and free entry to any parts of any manufacturing plant producing materials and/or equipment for the work.

1.05 MANUFACTURER'S SERVICES

A. The Contractor shall require material suppliers and product manufacturers to provide site representation on the request of the City Representative for qualifying and verifying the use of their materials for the project purpose and conditions.

1.06 MANUFACTURER'S RECOMMENDATIONS

A. Except as otherwise approved by the City Representative, the Contractor shall comply with manufacturer's recommendations on product handling, storage, and protection.

1.07 TRANSPORTATION AND DELIVERY

A. The Contractor shall transport and handle products, including spare parts and special tools, in accordance with manufacturer's instructions.

B. The Contractor shall transport and deliver manufactured products, undamaged, in manufacturer's original, unbroken containers or packaging, clearly identified with manufacturer's name, product name, and instructions.

C. The Contractor shall handle products to avoid soiling and damaging the products and their packaging.

D. Immediately upon delivery, the Contractor shall inspect shipments to assure compliance with the Contract Documents and reviewed submittals, and to verify that products are undamaged and properly protected from potential damage.

1. The Contractor shall maintain packaged materials with seals unbroken and labels intact until time of use.

2. The Contractor shall promptly remove damaged material and unsuitable items from the job site, and promptly replace with material meeting the specified requirements at no increase in Contract Sum.

3. Unsuitable materials and products not removed promptly from the job site by the Contractor may be removed by the City. Removal costs shall be paid by the Contractor.

E. The transfer of spare parts for an equipment system shall be completed before Functional Testing begins. The Contractor shall designate and provide one or more persons to be responsible for the inventory of spare parts to be provided under the Contract and as specified in the Technical Specifications. After completion of the Manufacturer's Certificate of Installation for an equipment system, this person or persons shall deliver the specified spare parts (with each item securely tagged / identified) on that equipment or system to a storage site designated by the City. The Contractor, in the presence of the manufacturer's representative and the City, shall physically inventory, and document each spare part and shall transfer responsibility for storage of the spare parts to the City.

F. The City Representative may reject as non-complying such material and products that do not bear identification satisfactory to the City Representative as to manufacturer, grade, quality, and other pertinent information.

1.08 STORAGE

A. The Contractor shall:

1. Store and protect products, including spare parts and special tools, in accordance with manufacturer's instructions, with seals and labels intact and legible. Spare parts and special tools shall remain with the equipment to which they belong until they are officially transferred to the City Representative.

2. Store sensitive products in weather tight, climate controlled enclosures.

3. Store fabricated products above the ground, on blocking or skids, to prevent soiling and staining of the products.

4. Provide off-site storage and protection when site does not permit on-site storage or protection.

5. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation or potential degradation of product.

6. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.

7. Arrange storage to facilitate inspection of products. Periodically inspect stored products to assure that products are maintained under specified conditions and free from damage and deterioration.

8. Store products subject to damage from the elements in weather tight enclosures, maintaining temperature and humidity within the ranges specified by the manufacturers. Electrical and instrumentation and control equipment shall have space heaters energized or be provided with a

suitable temporary heat source such as light bulbs in order to prevent condensation/moisture damage.

9. Mechanical equipment shall be properly lubricated and periodically rotated to prevent seizing or binding, as recommended by the manufacturer.

10. Equipment having bare metal or only shop applied primer shall receive special attention to ensure that it is adequately covered/protected to prevent rust.

11. Provide coverings as necessary to protect installed products from damage from traffic and construction operations including due to dust and moisture. Remove coverings when no longer needed.

    a. Use protective covering and blocking materials that do not soil, stain, or damage materials and equipment being protected.

12. Contractor shall maintain a preventive maintenance record for all material and equipment requiring preventive maintenance by the manufacturer. A monthly report of all maintenance performed shall be submitted to the City Representative to certify maintenance has been performed as recommended by the manufacturer.

1.09 HANDLING

A. The Contractor shall use means necessary to protect the materials and equipment of this Section before, during and after installation and to protect the installed work and materials and equipment of other trades.

1. Protect finished surfaces, including jambs and soffits of openings used as passageways, through which equipment and materials are handled.

2. Provide protection for finished floor surfaces in traffic areas prior to allowing equipment or material to be moved over such surfaces.

3. Maintain finished surfaces clean, unmarred, and suitably protected until accepted by the City.

B. The Contractor shall clean exposed materials and equipment at the time of acceptance of the installation for Substantial Completion.

1.10 REPAIRS AND REPLACEMENTS

A. The Contractor shall promptly replace lost or damaged materials and equipment with replacements of like kind and quality or repair them at no additional cost to the City.

B. Damage to any of the Work and/or existing premises prior to acceptance by the City is the responsibility of the Contractor. Should any new materials and equipment become damaged, the Contractor shall restore it to its original condition and finish before final acceptance.

C. Additional time or costs required to secure replacements and to make repairs will not justify an extension in the Contract Time nor an increase in the Contract Sum.

D. All materials which the City Representative has determined are not in conformance with the requirements of the plans and specifications will be rejected whether in place or not. The rejected materials shall be removed immediately from the site of the work, unless otherwise permitted by the City Representative. No rejected material, the defects of which have been subsequently corrected, shall be used in the work, unless approval in writing has been given by the City Representative.

E. Should the Contractor fail to promptly comply with any order by the City Representative to remove and replace rejected material or equipment, the City Representative may deduct the cost for removal or replacement from any moneys due or to become due to the Contractor.

1.11 SPECIALLY MANUFACTURED ITEMS AND CALCULATING THE APPLICABLE LBE CREDIT TOWARDS THE LBE SUBCONTRACTING REQUIREMENT

A. The following is a list of material, articles, equipment or other manufactured items that the Department has designated as "Specially Manufactured Items":

1. ***[Manual insert field – Project Engineer shall provide the required equipment list as described above for the purpose of calculating LBE credit. If it is determined that this listing is not required, then replace part 'A' in its entirety with just the two words "Not Applicable" and delete part 'B' in its entirety. Contact the assigned CMD Contract Compliance Officer for assistance in completing this Article correctly, if needed. Also, be sure to delete the boilerplate sentence that refers to this Section 01 60 00 in the Section 00 01 03 'Advertisement for Bids', if necessary.]***

B. Contractor shall refer to CMD Attachment 1 or 6 (Section 00 49 01 or 00 49 06), Part III, Section 3.01B, for further instructions on the applicable LBE credit for Specially Manufactured Items.

1.12 INSPECTION, QUALITY SURVEILLANCE, REJECTION OF MATERIALS AND WORKMANSHIP

A. All materials and equipment furnished and Work performed shall be satisfactorily inspected by the Contractor at its expense. The City and its authorized representatives or other persons deemed necessary by any of them acting within

the scope of the duties entrusted to them (collectively, "City") may, at any time conduct quality surveillance or quality audit of materials and equipment furnished and Work performed.

B. Contractor shall provide the City with full and free access to worksites, shops, factories, storage facilities and other places of business of Contractor and its Subcontractors and Suppliers and Manufacturers, and major component sub-vendors, for such quality surveillance or audit. Contractor shall provide safe and adequate facilities, drawings, documents, un-priced purchase orders, schedules, supplier or manufacturer contact information, and samples as requested, and provide assistance and cooperation including stoppage of Work to perform such examination as may be necessary to determine compliance with the requirements of the Contract.

C. Any Work covered prior to any quality surveillance or test by the City shall be uncovered and, after such surveillance or test, recovered at the expense of Contractor. Failure by the City to conduct such quality surveillance or to discover defective design, materials, or workmanship shall not relieve Contractor of its obligation under the Contract nor prejudice the rights of the City thereafter to reject or require the correction of defective Work in accordance with the provisions of the Contract.

D. If any Work is determined to be defective or not in conformance with the Contract, Contractor will be notified in writing and shall, at Contractor's expense, immediately remove and replace or correct such defective Work.

1.13 EXPEDITING

A. Contractor is solely responsible for completing all Work in accordance with the Construction Schedule. As provided in the General Conditions, any material and equipment furnished and Work performed by Contractor under the Contract will also be subject to expediting by the City.

B. Contractor shall provide the City with full and free access to worksites, shops, factories, storage facilities and other places of business of Contractor and its Subcontractors and Suppliers for expediting purposes.

C. As requested by City, Contractor shall promptly provide un-priced copies of all purchase orders, detailed schedules and progress reports for use in expediting and shall cooperate with City in expediting activities.

1.14 PROJECT-SPECIFIC REQUIREMENTS

A. ***Not Used***.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 69 50

SHUTDOWNS AND SITE ACCESS

Project Engineer: Ensure that the Project-specific shutdown dates and related liquidated damages and/or incentives described herein are in full agreement with the information specified in 'Contract Time and Liquidated Damages' Section 00 73 02. For those rare instances where Upper Management directs us to offer incentives for early completion of shutdowns or other interim milestones, Perfectus will generate the alternate title 'Contract Time, Incentives and Liquidated Damages' for Section 00 73 02. This specification also addresses the Contractor's site access for activities which may impact Operations.

PART 1 – GENERAL

1.01 SUMMARY

A. This specification is applicable to (a) shutdowns of pipelines and other water handling components/facilities and (b) hot work, testing, and Contractor activities for which Contractor site access may impact Operations' activities, impact performance of the water system, impact water deliveries to SFPUC customers, impact water treatment, or increase the risk of failure of other water components/facilities with the potential to impact the water system.

B. Work included under this Section:

1. Coordination of Pipeline and Facility Shutdowns
2. System Outage Requests ("SOR")
3. Access Request

C. Related Documents and Sections include:

1. SOR Form – see Appendix "A" to this Section
2. Access Request Form ("ARF") – see Appendix "B" to this Section
3. Section 00 73 02 – Contract Time and Liquidated Damages

   Project Engineer: If incentives for early completion of shutdowns or other milestones is offered, then please insert the word 'Incentives' above in the indicated title for Section 00 73 02 so that it reads: 'Contract Time, Incentives and Liquidated Damages'.

4. Section 00 73 19 – Health And Safety

5. Section 01 32 16 – Construction Progress Schedule

6. Section 01 75 60 – Testing Coordination and Start-Up Testing

1.02 DEFINITIONS

A. "Shutdown" is the closing of valves and/or the depressurizing and draining, de-energizing, disconnecting, or temporary decommissioning of pipelines or system components/facilities. A shutdown involves disconnecting and securing the system to prevent unauthorized activation during scheduled activities. A Shutdown is considered complete when the pipeline or component/facility has been returned to service. Shutdowns may affect a portion of a transmission system, a water treatment process, a component/facility, or an entire system.

B. "System Outage Request" or SOR is a request form and shutdown package made by the Contractor, through the City Representative, to the City to shut down a portion of the water system.

C. Access Request is a request made by the Contractor, through the City Representative, to the City to access, test, or work near a portion of the water system or water treatment system.

D. "Contingency Plan" is the Contractor's plan, included with the SOR, for restoring the pipeline or system component and turning it over to the City such that full water transmission or treatment capacity can be restored in the event the shutdown is terminated.

1.03 CONTRACTOR'S GENERAL PLAN FOR WORK TO BE EXECUTED DURING SHUTDOWNS

A. The Contractor shall plan the work to be executed during shutdown(s) with sufficient logistics, personnel, material and equipment in order to complete the work within the specified time limits. The Contractor shall consider procuring extra materials (e.g., long-lead items) or providing extra or backup equipment as needed in case of damage or breakdown during the shutdown work.

B. The Contractor shall thoroughly plan all aspects of its on-site operations and coordinate with the City Representative to execute the work with minimal disruption to City operations, the public and the environment.

C. System Outage Request: The Contractor shall submit to the City Representative, a shutdown request using a SOR form.

D. The City will be responsible for the initial dewatering/decommissioning and the final refilling/disinfection which will be performed prior to restoration of service.

E. Contractor shall be responsible for maintaining the pipeline trench, if any. The Contractor's maintenance shall include de-watering, monitoring, and

disposal/treatment of incidental leakage and any residual water from the isolated area during the shutdown. Estimated valve leakages are given in Article 1.09 of this Section.

F. The City reserves the right to advance or delay the start of shutdowns, without changing the duration of the shutdown, by 14 calendar days. The City will provide this notice at least 7 calendar days prior to the start of the shutdown. The Contractor's work plan shall address any impacts resulting from such action. The Contractor shall include, in its bid, all costs for one advancement or delay per each specified shutdown.

G. During shutdowns the Contractor shall provide temporary electrical power as necessary to perform the construction work.

H. In order to ensure the reliable supply or quality of public drinking water the City may terminate a shutdown that has been planned and/or commenced by the Contractor. If the City deems such termination to be necessary, then the termination may be ordered at the City's sole discretion. Upon written notification of such early termination by the City Representative, the Contractor shall immediately redirect work to restore the facilities that have been shut down in accordance with the Contractor's Contingency Plan (as required by Article 1.05). Contractor's restoration efforts shall commence within 4 hours of the termination notification, unless a longer period is specified in the notification. Remaining unfinished work will be completed during a subsequent shutdown coordinated and scheduled by the City.

I. If a Contractor fills out a SOR form for a particular activity, an ARF is not required.

J. The Contractor's safety responsibilities are described in Section 00 73 19.

1.04 THE CITY'S REQUIREMENTS PRIOR TO SHUTDOWN

A. The requested pipeline or facility shutdown will be permitted only after the following conditions have been met:

1. All Contractor-furnished and/or City-furnished materials to be installed during the proposed shutdown are on-site or at a designated staging area, and all associated submittals have been approved by the City Representative at least three (3) working days prior to the shutdown.

2. All Contractor-provided or City-provided equipment to be used during the proposed shutdown work is on-site.

3. The City Operations Manager has approved a SOR prepared and submitted by the Contractor and a file copy is returned to the Contractor by the City Representative. This System Outage Request is normally accompanied by a SFPUC internally-generated form referred to as an

Operational Change Request and a Lock-out Tag-out ("LOTO") plan prepared by the concerned Operating Division, signed by the Operations Manager, and reviewed by the Contractor.

4. The City reviews the LOTO plan including the arrangements by the construction contractor and confirms complete implementation of the LOTO plan via a visit to the field with representation from the Contractor together with the Operations Representative, to visually observe the presence of locked and tagged valves, switchgear, etc. The Contractor should be given ample time to review and question to their satisfaction, the system schematics involving all valves/switches to lock out.

5. The City has approved the following submittals from the Contractor:

   a. NSF-60 certification for chemicals applied to drinking water components (usually disinfectants) and facilities and NSF-61 certification for new components which will come in contact with drinking water

1.05 SYSTEM OUTAGE REQUESTS ("SOR")

A. The installation of valves, actuators, pipes, pumps, associated appurtenances, instruments, or water treatment equipment may require a shutdown.

B. A complete System Outage Request shall include:

1. A completed SOR form (Appendix A)

2. A detailed resource-loaded schedule showing the labor, material and equipment needed for shutdown activities. The schedule shall indicate work for all shifts and crafts. At the City's request, the Contractor shall provide a supplementary schedule that may be detailed down to daily or hourly activities to ensure proper planning and monitoring of the work. One SOR is required for each pipeline or facility shutdown.

3. The Shutdown portion of the Construction Schedule described under Section 01 32 16

4. Contractor's Contingency Plan to be implemented in the event that the City directs the Contractor to perform emergency restoration of the pipeline or system component which has been shut down. As described in Article 1.03, the City may terminate any shutdown that has been planned by the Contractor and approved by the City at any time, at its sole discretion, if necessary for the purposes of ensuring a reliable supply or quality of public drinking water.

5. Documentation of NSF-60 certification for chemicals applied to drinking water components (typically a disinfectant) and facilities and NSF-61

certification for new components which will come in contact with drinking water.

6. Contractor's Sanitary Work Practices Plan.

7. Contractor's Drainage, Dechlorination, Monitoring, and Discharge/Disposal Plan (Incidental Water Management Plan). For Contractor work inside a confined space or trench subject to potential inundation/engulfment, this plan shall describe how leakage will be removed, (e.g., bulkhead, sandbag berm and pumps, gravity feed from a blow off, etc.). The Contractor shall provide specific details regarding the number, sizes, and types of dewatering pumps used, the design of the sandbag berm or bulkhead, size of the blow-offs used for gravity discharge, etc. The Contractor shall attach drawings as necessary. This plan shall describe in detail how water levels will be monitored and discharged including the high water level that triggers evacuation in the event of a catastrophic valve failure or unmanageable leakages. Backup pumps shall be provided so that in the event of a pump failure the dewatering operation can continue. The Plan shall include calculations to demonstrate that the Contract-specified leakage (Article 1.09) can be handled safely without flooding the job site. The calculations shall consider available storage in the pipeline or elsewhere, pumping rate, hours per day pumped, and whether pumping over extended hours or weekend is required to handle the Contract-specified leakage.

8. A shutdown narrative section (Outage Work Plan) describing the Contractor's sequence of work; crew sizes and equipment; the length of time required to complete the Work; any necessary temporary power, controls, instrumentation or alarms required to maintain control and the labor and equipment that the Contractor proposes to complete the scheduled work.

9. A site plan for the shutdown work.

C. The SOR shall be signed and dated by the Contractor's Representative, and must be submitted to the City Representative not less than 60 calendar days prior to the requested shutdown.

D. The Contractor shall notify the City Representative in writing at least 7 days in advance of the outage if the schedule or any part of the work has changed from the approved SOR. A revised SOR may be requested from the Contractor. No revised system outage is to be initiated without written approval from the City Representative or the revised SOR has written approval from the Operations Manager.

E. Not less than 2 working days prior to the approved shutdown date, the Contractor shall submit to the City Representative written confirmation of the Contractor's

plan to proceed with the work on the shutdown start date approved in the SOR as well as the status of materials, equipment, tools, and personnel.

1.06 ACCESS REQUEST

Some construction activities do not fall into the shutdown category, but are Contractor testing activities, Contractor valve testing activities, hot taps, hot work, or work adjacent to a portion of the water system. These activities shall be tracked along with the shutdowns in order to keep the City Representative aware of construction work activity at their facilities, including the number of people and amount of equipment at their existing facility. The City Representative shall be updated on a frequent basis on the status of the hot work and Contractor's activities so that a clear understanding of potential hazards/risks to Operations and to construction can be identified and communicated swiftly and correctly among the parties involved in the hot work.
The work included is a part of a contract with the City and therefore Operations needs to know who, how many, and where Contractor's personnel will be on any given day and those areas/systems the Contractor will be working with or working on.
The information required shall be included in the Access Request Form (ARF in Appendix B); add pages with additional information for clarity as necessary. This form shall precede the Contractor's access request activity.
Contractor shall update the City Representative daily on the status of the access request activity. Operations will inform the Contractor through the City Representative of relevant changes to operations which affect the construction work.

A. The ARF shall be signed and dated by Contractor's Representative, and must be submitted to the City Representative not less than 30 calendar days prior to the requested access, hot tap, testing, or work adjacent to a portion of the water system.

B. The ARF shall include the Contractor's Hot Tap Plan, if applicable per Section 01 35 55.

C. The Contractor shall notify the City Representative in writing at least 7 days in advance of the access if the schedule or any part of the work has changed from the approved Access Request Form. No system access shall be initiated without written approval from the City Representative.

D. The Contractor's safety responsibilities are described in Section 00 73 19.

1.07 LIQUIDATED DAMAGES

Contractor will be assessed Liquidated Damages if Contractor fails to meet the dates specified in Contractor's approved System Outage Request or if Contractor fails to perform Contractor's Shutdown Work within the specified number of days. Liquidated Damages are specified in Article 1.03 of Section 00 73 02.

1.08 OPERATION OF LINE VALVES

A. City personnel will be responsible for operation of existing line valves, customer turnout valves, gates, pumps, vents and drains to isolate and drain the pipeline, section of pipeline or the component to be isolated for the system outage.

B. Contractor shall be responsible for handling and monitoring incidental leakage and residual water after the initial isolation and draining as described in Article 1.03.

C. Where City's facilities will continue to operate throughout the execution of the Contract, the Contract work shall be thoroughly planned prior to its commencement in order to minimize impact on the City's operations.

D. Operation or momentary "bumping" of in-service new or existing line valves required for Startup and Testing Activities may be performed by the Contractor, provided:

1. an approved ARF is on file detailing the scope and schedule for the planned activities,

2. a City Representative-approved representative from Operations witnesses the valve operation, and

3. specific activities are coordinated on a day-to-day basis with the appointed Operations Representative.

1.09 PROJECT-SPECIFIC REQUIREMENTS FOR SHUTDOWNS

Project Engineer: The Project Engineer shall enter data listed below, defining the shutdown(s) for this contract. Use Section 00 73 02 to define the "liquidated damages to be assessed" for missing the shutdown schedule/duration or the incentives for early completion, if any.

A. Shutdown Name: ***[Manual insert field]***

B. Type of Shutdown: ***[Manual insert field]***

C. Purpose of the Shutdown: ***[Manual insert field]***

D. Facilities that will be impacted: ***[Manual insert field]***

E. System Constraints and/or other related shutdowns: ***[Manual insert field]***

F. Expected Leakage (gallons per minute): ***[Manual insert field]***

Project Engineer: The minimum expected leakage for transmission pipeline projects shall be 500 gpm unless a lower leakage rate is determined by Operations and the assigned EMB Mechanical Engineer"

Instructions to Project Engineer: With regard to completing the following part 'G', the amount of time actually allowed for the shutdown is described here. The total time of the shutdown includes time for Operations drainage and preparation as well as time for re-filling and disinfection. It is essential that the four shutdown dates below be provided in order to prevent confusion on how much time the City and the Contractor have during the shutdown.
The number of front end calendar days required by the City for decommission/draining of the system component. This is from the out of service date (i) to the turnover to the Contractor date (ii).
The number of calendar days for Contractor's Work during System Outage(s). This is the turned over to the Contractor date (ii) to the facility turn over to City date (iii).
The number of back end calendar days required by the City for re-commissioning/refilling/disinfecting the system. This is from the turn over to the City date (iii) to the back in service date (iv). Time may be necessary to account for reliability testing once the facility is back in service.
The entire duration of the shutdown is from the out of service date (i) to the back in service date (iv).

G. Shutdown dates:

1. Out of service: ***[Manual insert field]***

2. Turnover to the Contractor (start of Contractor's shutdown work): ***[Manual insert field]***

3. Turnover to the City (end of Contractor's shutdown work): ***[Manual insert field]***

4. Back in service: ***[Manual insert field]***

PART 2 – PRODUCTS

2.01 GENERAL

A. Contractor shall be responsible for furnishing chemicals for dechlorination and pH control of water if discharge of water occurs as a part of Contractor's work.

2.02 STORAGE AND HANDLING OF CHEMICALS

A. Chemicals shall be stored and handled in complete conformance with the manufacturer's Safety Data Sheet ("SDS").

PART 3 – EXECUTION

3.01 SEQUENCE OF CONSTRUCTION

A. The Contractor shall execute shutdown work in the following general order:

1. Contractor's work shall not commence work until the City Representative notifies Contractor that the Contractor's SOR is approved.

2. Demolition of the existing pipeline or facility shall not begin until the City has completed shutdown preparatory activities and Contractor has received notification from the City Representative.

3. Contractor's work shall not commence until the Contractor and the City Representative have completed Lock-out Tag-out ("LOTO") in accordance with SFPUC (see Article 1.04), Section 00 73 19, and Cal-OSHA regulations.

4. Contractor's work shall not commence until Contractor has received approval of the plumbing configuration for dechlorination and pH control and all required permits are in hand.

5. Contractor shall commence and complete work on each pipeline or component/facility within the time limits described in Section 00 73 02.

6. Contractor shall be responsible for maintaining the isolated section or component/facility in a safe and sanitary condition.

7. The Contractor shall notify the City Representative and then remove its locks upon completion of the Contractor's work and when the Contractor's personnel are clear.

8. The Contractor shall submit records of the shutdown including volume of water discharged, chlorine, and pH of the discharged water and total chemicals consumed.

B. The Contractor shall execute access request work in the following general order:

1. Contractor's work shall not commence until the City Representative notifies Contractor that the Contractor's Access Request is approved.

2. Contractor's hot tap work shall not commence until the City Representative notifies Contractor that the Contractor's Hot Tap Plan is approved.

3. Contractor's testing shall not commence until the City Representative notifies Contractor that the Contractor's testing plan has been approved.

4. Contractor's work shall not commence until the Contractor and the City Representative have completed LOTO in accordance with SFPUC (see Article 1.04), Section 00 73 19, and Cal/OSHA regulations.

5. Contractor's work shall not commence until Contractor has received approval of the plumbing configuration for dechlorination and pH control and all required permits are in hand.

6. Contractor shall be responsible for maintaining the isolated section or component/facility in a safe and sanitary condition.

7. The Contractor shall notify the City Representative and then remove its locks upon completion of the Contractor's work and when the Contractor's personnel are clear.

8. The Contractor shall submit records including volume of water discharged, chlorine, and pH of the discharged water and total chemicals consumed.

APPENDIX "A"

SYSTEM OUTAGE REQUEST FORM, PAGE 1 OF 2

This form is to be prepared by the Contractor to request an outage of any portion of the SFPUC water treatment system and/or transmission and delivery system to allow the Contractor to perform contracted work requiring a system outage.

The Contractor proposing an outage must prepare a "Proposed System Outage Work Plan". This plan is to be filled in as completely as possible, signed by the Contractor and submitted to the City Representative. The City Representative will forward the SOR to the concerned Operations Division for review and approval.

Significant scope changes or changes in the overall schedule will require an amended work plan and supplementary review and approval.

CONTRACTOR'S NAME AND CONTACT INFORMATION:
(Provide multiple contacts including emergency contact numbers):

SHUTDOWN NAME:

FACILITY/FACILITIES AND DATES TO BE SHUTDOWN:

CONTRACTOR'S WORK PLAN (Attach Work Plan meeting the requirements of Specification 01 69 50 of the contract General Requirements):

CONTRACTOR _____

CONTRACTOR'S REPRESENTATIVE _____

Date _____

SYSTEM OUTAGE REQUEST FORM, PAGE 2 OF 2

FACILITY/FACILITIES AND DATES TO BE SHUTDOWN:

CONCUR:
PROJECT CONSTRUCTION MANAGER _____

REGIONAL CONSTRUCTION MANAGER _____

PROJECT OPERATIONS REPRESENTATIVE _____

CIP SHUTDOWN COORDINATOR _____

THIS CONTRACTOR-INITIATED SYSTEM OUTAGE REQUEST IS NOT CONSIDERED APPROVED UNTIL IT HAS BEEN SIGNED BY THE OPERATIONS MANAGER AND A COPY IS DELIVERED TO THE CONTRACTOR BY THE CITY REPRESENTATIVE.

THIS SYSTEM OUTAGE REQUEST IS NORMALLY ACCOMPANIED BY AN SFPUC INTERNALLY GENERATED FORM REFERRED TO AS AN OPERATIONAL CHANGE REQUEST PREPARED BY THE CONCERNED SFPUC OPERATING DIVISION AND SIGNED BY THE OPERATIONS MANAGER.

APPROVAL OF CONTRACTOR'S SHUTDOWN WORK PLAN:

OPERATIONS MANAGER _____
DATE _____

APPENDIX "B"

ACCESS REQUEST FORM, Page 1 of 2

AREA REQUESTED:	_____	**ACCESS REQUEST #:**	_____
DATE/TIME REQUESTED:	_____	**DATE:**	_____
DURATION OF WORK:	_____	**PLAN REF.**	_____
APPROVED SUBMITTALS:	_____	**SPEC. REF.**	_____
CONTRACTOR/SUBCONTRACTOR:	_____	**ISSUED BY:**	_____

DESCRIPTION OF WORK:

EQUIPMENT LIST: _____

OPERATIONS or PLANT STAFF SUPPORT REQUIRED:

HOT WORK PERMIT* REQUIRED? ☐ **YES** ☐ **NO** **SKETCH ATTACHED?** ☐ **YES** ☐ **NO**

SIGNATURES:

1. Contractor Rep. _____ **DATE:** _____

2. Ops REVIEW: _____ **DATE:** _____

3. CMB REVIEW: _____ **DATE:** _____

COMMENTS:

ACCESS REQUEST FORM, Page 2 of 2

DATE WORK COMPLETED:	_____	**QA INSPECTOR SIGNATURE:**	_____

*** A sample Hot Work Permit is part of the Contractor's Health and Safety Plan ("HASP") as per Specification 00 73 19.**

END OF SECTION

SECTION 01 71 33

PROTECTION OF ADJACENT CONSTRUCTION

PART 1 – GENERAL

1.01 SUMMARY

A. Section includes the following topics:

1. Related Sections
2. Existing Utilities and Improvements
3. Rights-of-Way
4. Restoration of Pavement
5. Trees within Project Limits
6. Joint Survey to Establish Authenticity of Possible Claims
7. Protection of Existing Buildings and Improvements Adjacent to Excavation
8. Project-Specific Requirements

B. Related Sections:

1. Section 00 72 00 – General Conditions
2. Section 00 73 20 – Existing Utility Facilities
3. Section 01 11 00 – Summary of Work
4. Section 01 50 00 – Temporary Facilities and Controls

1.02 RIGHTS-OF-WAY

A. Contractor shall not do any work that would affect any oil, gas, sewer, or water pipeline; any telephone, telegraph, or electric transmission line; any fence; or any other structure, nor shall Contractor enter upon the rights-of-way involved until the owner of the structure or facility has been properly notified and authority has been secured therefore.

B. After receiving authorization, Contractor shall give said party due notice of intention to begin work, and shall give said party convenient access for removing, shoring, supporting, or otherwise protecting such facility or structure.

1.03 PAVEMENT AFFECTED BY WORK

A. General: All paved areas cut or damaged during construction shall be replaced with similar materials and of equal thickness to match the existing undisturbed areas, except where specific resurfacing requirements are called for in the Contract Documents or in the permit requirements of the agency issuing the permit. All pavements that are subject to partial removal shall be neatly saw cut in straight lines. The Contractor shall contain all debris generated by sawcutting operations and dispose of properly. Sawcutting debris shall not be allowed to flow in gutters or enter into any stormwater collection basin.

B. Temporary Resurfacing: Whenever required by the public authorities having jurisdiction, place temporary surfacing promptly after backfilling and maintain such surfacing in a satisfactory condition for the required period of time before proceeding with the final restoration.

C. Permanent Resurfacing: Damaged edges of pavement along excavations and elsewhere shall be trimmed back by saw cutting in neat straight lines. All pavement restoration shall be constructed to finished grades compatible with undisturbed adjacent pavement.

D. Restoration of Sidewalks or Driveways: Wherever sidewalks, curbs and gutters, or driveways have been removed for construction purposes, place suitable temporary sidewalks, curbs and gutters, or driveways promptly after backfilling and maintain them in satisfactory condition for the period of time before the final restoration has been made.

1.04 TREES WITHIN PROJECT LIMITS

A. General: Exercise all necessary precautions so as not to damage or destroy any trees or shrubs, including those lying within the Contract limits. Immediately notify the City Representative if any tree is damaged by Contractor's operations. If, in the opinion of the City Representative, the damage is such that replacement is necessary, replace the tree at the direction of the City Representative and at no cost to the City.

1.05 JOINT SURVEY TO ESTABLISH AUTHENTICITY OF POSSIBLE CLAIMS AND ENVIRONMENTAL PROTECTION

A. The Contractor shall use reasonable methods and shall take adequate precautions to prevent damage to existing buildings, structures, and other improvements during the prosecution of the Work.

B. The Contractor shall retain a photographer experienced in performing preconstruction and post-construction documentation of all existing nearby structures. The survey shall be made using still photographs and digital video.

C. After the Contract is awarded and before the commencement of Work, the City Representative will arrange for a joint examination of existing buildings, structures, other improvements, and environmental conditions in the vicinity of the Work, as applicable, which might be damaged or affected by the Contractor's operations.

D. The examination of the exterior of existing buildings, structures, and other improvements located within 25 feet of the construction excavation will be made jointly by authorized representatives of the Contractor, the City, and property owners under the supervision of the City Representative. The scope of each examination shall include, but is not limited to, recording of cracks in structures, settlement, leakage, and any other physical features that may be appropriate. If vibration monitoring is also included in the contract, the information in this article shall complement, not supersede, the requirements of the vibration monitoring section.

NOTE: The distance set at 25 feet in the article above may not be appropriate for all types of work to be performed on a particular contract. The PE should review this distance requirement and ensure that 25 feet is appropriate for the contract.

E. Records in triplicate of all still photographs and video will be prepared by the photographer. One copy shall be delivered to the Contractor, one copy will be kept on file at the office of the City Representative, and the third copy will be retained by the City. The photographer may be required to attest to the fact that he/she took the subject photographs or video on certain dates in the presence of the individuals named above; however, in no case, will he/she offer an opinion as to the cause of cracks, settlement, leakage, or other physical conditions.

F. The above records and photographs are intended for use as indisputable evidence in ascertaining the extent of any damage which may occur as a result of the Contractor's operations and are for the protection of the adjacent property owners, the Contractor, and the City, and will be a means of determining whether and to what extent damage, resulting from the Contractor operations, occurred during the Contract Work.

G. The photographic survey records shall have a vicinity map showing general location of buildings, a map showing the location of each picture with reference to the general layout of the building, and photograph log by number and description of observation. The still photographs shall be in color, medium format, and contact print. Each photograph shall have a sequential photo number for each property, date, address, and true scale. Photographs may be taken as close as 2 feet and as far as 20 feet.

H. The work of this Article will be paid for under the "Mobilization" Bid Item.

1.06 PROTECTION OF EXISTING BUILDINGS AND IMPROVEMENTS ADJACENT TO EXCAVATION

A. The Contractor shall submit to the City Representative for review, calculations prepared by a Contractor-employed civil or structural engineer, registered in California, showing the method and details of support of excavations in order to prevent lateral movement and settlement of adjacent buildings and improvements. The excavation support system shall conform to the requirements of Sections 6705 and 6707 of the California Labor Code. Do not construct any such shoring or excavation support system prior to City approval of required Submittals.

B. The responsibility for the method of excavation and for the design of the support system will remain with the Contractor, and he/she will be responsible for, and shall repair any damage caused by lateral movement and/or settlement to the adjacent buildings and to any other improvements.

C. Any lagging or other support members that are to remain in place shall be treated wood or steel. The plans submitted by the Contractor shall show the method of installing and removing any wood supports that may be used.

D. The Contractor shall be wholly responsible for supporting all adjacent buildings and improvements. Materials and work related thereto as well as all engineering and design described in paragraph "A" of this Article shall be considered as incidental work and no separate payment will be made by the City therefore.

E. Dewatering related to the requirements of this Article shall be considered incidental work and no separate payment will be made by the City therefor.

NOTE: Some municipalities/local governments may require a discharge permit for dewatering. Consult with your EPM or confirm with the local authority having jurisdiction that a permit is not required. Also note that Article 4 of Section 00 73 73 includes specific references to various ordinances governing Water Discharges.

1.07 PROJECT SPECIFIC REQUIREMENTS

A. ***Not Used***.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 73 29

CUTTING AND PATCHING

PART 1 – GENERAL

1.01 SUMMARY

A. Cutting and patching for existing and new construction.

B. Related Sections:

1. Section 01 11 00 – Summary of Work
2. Section 01 31 00 – Project Management and Coordination
3. Section 01 33 00 – Submittal Procedures
4. Section 01 25 13 – Product Substitution Procedures

C. Definition

1. "Cutting and Patching" is defined to include the cutting and patching of nominally completed and previously existing concrete, steel, wood and miscellaneous metal structures, piping, and pavement in order to accommodate the installation and coordination of work required under the Contract Documents, to uncover facilities and structures for access or inspection, or to obtain samples for testing or similar purposes.

2. Cut, fit, and patch as required to complete the work, and to:

   a. Make parts fit together properly

   b. Uncover portions of work to provide installation of ill-timed work

   c. Remove and replace defective work

   d. Remove and replace work not conforming to the requirements of the Contract Documents

   e. Remove samples of installed work as required for testing

   f. Provide routine penetrations of non-structural surfaces for installation of piping and electrical conduit

1.02 REQUIREMENTS OF STRUCTURAL WORK

A. Do not cut and patch structural work in a manner resulting in a reduction of load-carrying capacity or load/deflection ratio.

B. Prior to cutting and patching the following categories of work, obtain the City Representative's approval to proceed:

1. Structural concrete

2. Structural steel

3. Foundation construction

4. Bearing and retaining walls

5. Miscellaneous structural metals, including equipment supports, stair systems, and similar categories of work

6. Work requiring excavation and backfill

1.03 OPERATIONAL AND SAFETY REQUIREMENTS

A. Do not cut and patch operational elements and safety-related components in a manner resulting in a reduction of capacities to perform in the manner intended or resulting in decreased operational life, increased maintenance, or decreased safety.

B. Obtain the City Representative's approval to proceed prior to cutting and patching the following categories of work:

1. Sheeting, shoring, and cross bracing

2. Operating systems and equipment

3. Water, moisture, vapor, air, smoke barriers, membranes, and flashings

4. Noise and vibration control elements and systems

5. Control, communication, conveying, and electrical wiring systems

1.04 SUBMITTALS

A. Submit a written request for approval by the City Representative prior to cutting or alteration, which affects:

1. Structural integrity of any element of project work or retained adjoining structure

2. Integrity of weather-exposed or moisture-resistant element

3. Efficiency, maintenance, or safety of any operational element

4. Work of City or separate contractor

5. Visual qualities of sight exposed elements

6. Work requiring excavation and backfill

B. Request shall include the following:

1. Identification of project work

2. Location and description of affected work

3. Necessity for cutting or alteration

4. Description of proposed work and products to be used, including:

a. Scope of cutting, patching, alteration, or excavation

b. Trades to execute work

c. Products proposed to be used

d. Extent of refinishing to be included

e. How structural elements will be reinforced

5. Cost estimate, if so requested by the City Representative

6. Alternatives to cutting and patching

7. Effect on work of City or separate contractor, or on structural or weatherproof integrity of retained structures or work

8. Written permission of affected separate contractor

9. Date and time work will be uncovered or executed

1.05 NON-DESTRUCTIVE TESTING AND EMBEDMENT DETECTION IN EXISTING CONCRETE

A. Where and prior to new contract work that requires retrofit demolition that includes drilling, coring and/or any other method(s) that penetrates the existing concrete, the Contractor shall retain and pay for at its expense, the services of a certified non-destructive testing agency to perform an investigation to determine the location of existing steel reinforcement, plumbing, conduit and/or any other embedments in the concrete in order to prevent damage existing embedments.

B. The non-destructive testing agency shall have a minimum of 5 years experience in performing non-destructive testing and steel reinforcement detection in existing concrete, similar to that required for this Contract. The Contractor shall submit qualifications of the non-destructive testing agency to the City Representative for approval.

C. The location of all embedded items, as identified above, shall be documented using diagrams and/or other required media that clearly show dimensions and locations of existing structural elements, existing embedded items and proposed new embedments and their relationship to each other.

D. The Contractor shall submit the aforementioned documentation to the City Representative for review and approval in accordance with Section 01 33 00 and before any work involving penetration of existing concrete is initiated.

1.06 PROJECT-SPECIFIC REQUIREMENTS

A. ***[Manual input field – Project Engineer input (if any) to cover those issues related to cutting, patching and/or NDT for embedments, which are not already adequately addressed, either within this Baseline Section or in General Conditions Section 00 72 00.]***

PART 2 – PRODUCTS

2.01 MATERIALS

A. Except as otherwise indicated, provide materials for cutting and patching which will result in equal or better work than the work being cut and patched in terms of performance characteristics and including visual effects where applicable. Use material identical with the original materials where feasible.

B. Primary Products: Submit materials and procedures for repair in accordance with provisions of Section 01 33 00.

C. Product Substitution: For any proposed change in materials, submit request for substitution under provisions of Section 01 25 13.

PART 3 – EXECUTION

3.01 EXAMINATION

A. Inspect existing conditions prior to commencing work, including elements subject to damage or movement during cutting and patching.

B. After uncovering existing work, inspect conditions affecting performance of work.

C. Beginning of cutting or patching means acceptance of existing conditions.

D. Report unsatisfactory or questionable conditions to the City Representative in writing. Do not proceed with work until City Representative has provided further instructions.

3.02 PREPARATION

A. Provide temporary supports to ensure structural integrity of the work. Provide devices and methods to protect other portions of work from damage.

B. Provide protection from elements for areas that may be exposed by uncovering work.

C. Maintain excavations free of water and supported to protect from cave-in.

3.03 INSTALLATION

A. Cut, fit, and patch when required to:

1. Make its several parts fit together properly.

2. Remove and replace construction not conforming to Contract Documents.

3. Remove samples of installed construction as specified for testing.

4. Provide routine penetrations of nonstructural surfaces for installation of piping and electrical conduit.

B. Execute cutting and demolition by methods that will prevent damage and will provide proper surfaces to receive installation of repairs.

C. Opening in Existing Concrete and Masonry:

1. Create openings by:

a. Saw cutting completely through concrete or masonry or

b. Scoring edges of openings with a saw to at least 1 inch depth on both surfaces (when accessible) and removing concrete or masonry by chipping.

2. Do not allow saw cuts to extend beyond limits of openings.

3. Make corners square and true by combination of core drilling and grinding or chipping.

4. Prevent debris from falling into adjacent tanks or channels in service or from damaging existing equipment and other facilities.

D. Sizing of Openings in Existing Concrete or Masonry:

1. Make openings sufficiently large to permit final alignment of pipe and fittings without deflections.

2. Allow adequate space for packing around pipes and conduit to ensure watertightness.

E. Grouting Pipes in Place:

1. Sandblast concrete surfaces and thoroughly clean sand and other foreign materials from surfaces prior to placing grout.

2. Grout pipes, sleeves, castings, and conduits in place by pouring grout under a head of at least 4 inches. Vibrate grout into place. Completely fill the spaces occupied by pipes, sleeves, castings, and conduits.

3. Water cure the grout.

F. Connections to Existing Pipes:

1. Cut existing pipe square.

2. Properly prepare the ends for the connection indicated on the Drawings.

3. Repair any damage to existing lining and coating.

G. Rehabilitate all areas affected by removal of existing equipment, equipment pads and bases, piping, supports, electrical panels, electric devices, and conduits such that little or no evidence of the previous installation remains.

1. Fill areas in existing floors, walls and ceilings from removed piping, conduit, and fasteners with non-shrink grout and finish smooth.

2. Remove concrete bases for equipment and supports by:

a. Saw cutting clean, straight lines with a depth equal to the concrete cover over reinforcement minus 1/2 inch below finished surface. Do not cut existing reinforcement on floors.

b. Chipping concrete within scored lines and cut exposed reinforcing steel and anchor bolts.

c. Patching with non-shrink grout to match adjacent grade and finish.

3. Terminate abandoned piping and conduits with blind flanges, caps, or plugs.

H. Treat Existing Concrete Reinforcement as follows:

1. Where existing reinforcement is to remain, protect, clean, and extend into new concrete.

2. Where existing reinforcement is not to be retained, cut off as follows:
   a. Where new concrete joins existing concrete at the removal line, cut reinforcement flush with concrete surface at the removal line.
   b. Where concrete surface at the removal line is the finished surface, cut reinforcement 2 inches below the surface, paint ends with epoxy, and patch holes with dry pack mortar.

END OF SECTION

SECTION 01 74 50

CONSTRUCTION & DEMOLITION DEBRIS RECOVERY PLAN AND REPORTING REQUIREMENT

PART 1 – GENERAL

1.01 SUMMARY AND GENERAL INFORMATION

A. The City has adopted policies and requirements to promote the reuse, recycling, and management of construction and demolition debris so as to divert such debris from landfill disposal sites.

B. This Document sets forth planning and reporting requirements to assist the City in measuring its progress toward achieving its construction and demolition debris diversion goals. It also sets forth certain required waste reduction measures. Specifically, this Document requires Contactor to, including electronically submitting to http://www.sf.wastetracking.com whenever possible:

1. Submit a Construction and Demolition Debris Management Plan to the City Representative shortly after Notice to Proceed (Article 1.03);

2. Submit monthly Construction and Demolition Debris Recovery Worksheets with its Applications for Payment (Article 1.04);

3. Submit a final Construction and Demolition Debris Recovery Worksheet covering the entire Work prior to and as a condition to final acceptance of the Work (Article 1.05); and

4. Implement waste reduction measures such as eliminating the procurement of unneeded supplies and reducing field office paper waste (Article 1.06).

C. The requirements set forth in this Document do not apply to hazardous waste, universal waste, or treated wood waste. Contractor shall handle and dispose of such wastes in accordance with all applicable laws and regulations. Such wastes shall be documented separately from construction and demolition debris, and reports relating to such wastes shall be provided to the City Representative as required by the Contract Documents. Refer to Sections 01 35 43.13 (if applicable) and 01 35 43.19 (if applicable) for specific reporting requirements for hazardous waste, universal waste, and treated wood waste.

1.02 DEFINITIONS

A. Construction and Demolition (C&D) Debris: Building materials and solid waste generated from construction and demolition activities, including, but not limited

to, fully cured asphalt, concrete, brick, rock, soil, lumber, gypsum wallboard, cardboard and other associated packaging, roofing material, ceramic tile, carpeting, fixtures, plastic pipe, metals, tree stumps, and other vegetative matter resulting from land clearing and landscaping for construction, deconstruction, demolition or land developments. Hazardous waste, as defined in California Health and Safety Code section 25100, et seq., as amended, is not Construction and Demolition Debris.

B. Recover or Recovery: Any activity, including source reduction, deconstruction and salvaging, reuse, recycling and composting, which causes materials to be recovered for use as a resource and diverted from disposal.

C. Recyclable Material: Any material or product separated or capable of being separated at its point of discard or from the solid waste stream for utilization as a raw material in the manufacture of a new product.

D. Recycling: The process of collecting, sorting, cleansing, treating, and reconstituting materials that would otherwise become solid waste. Recycling does not include burning, incinerating, or thermally destroying solid waste.

E. Recycling Facility: A recycling facility is an operation that collects and does any one or combination of the following: sorting, cleaning, treating, reusing, and reconstituting materials that would otherwise become solid waste.

F. Reuse: Making new use of a material without altering its form.

G. Source-Separated Materials: Materials that are sorted at the site of generation by individual material type for the purpose of reuse or recycling (e.g., demolished concrete that is separated at the Site for delivery to a base course recycling facility).

H. Universal Waste: Any of the following hazardous wastes that are subject to the universal waste requirements (a) batteries, (b) pesticides, (c) mercury-containing equipment, and (d) fluorescent lamps.

1.03 CONSTRUCTION AND DEMOLITION DEBRIS MANAGEMENT PLAN

A. Prior to commencing construction or demolition Work at the Site, Contractor shall conduct a site assessment to estimate the types and quantities of materials that will be generated by project-related construction and demolition and which materials are anticipated to be feasible and practical for reuse and recycling.

B. Based on its site assessment, the Contractor shall prepare a Construction and Demolition Debris Management Plan ("Plan"). The Plan shall include the following:

[Manual insert – Project team should review the following list and add any project-specific requirements, as appropriate:

1. ***The Contractor's information and Project identification.***

2. ***Procedures to be used for debris management. Procedures shall be consistent with any requirements for debris management set forth in the Contract Documents, including any mitigation measures that address debris management (see Section 01 35 43).***

3. ***A list of the materials and estimated quantities to be reused, recycled, or transported to an off-site facility.***

4. ***The names, locations, and permit or license, as applicable, of recycling and reuse facilities that the Contractor plans to use for this Project.***

5. ***Procedures for source separation for recyclable and reusable materials.***

6. ***A description of practices for this Project that will reduce waste at the source, such as requiring vendors to deliver materials in reusable packaging.***

7. ***A description of procedures in which materials are recycled and/or reused on-site, such as grinding materials for use on-site, or reuse of lumber for concrete frames, etc.***

8. ***Procedures to educate and train all employees and subcontractors on recycling and reuse procedures to be used at the jobsite.]***

C. Contractor shall submit its Plan in electronic format (PDF) to the City Representative no later than ***[Manual insert – Although the recommended default entry for this insert field is "10 working days after Notice to Proceed," Project Engineer should adjust the number of days and NTP reference as appropriate for the Project (e.g., construction NTP for a design-build or CM-at-Risk project)]***. The City Representative may schedule a meeting with Contractor to discuss Contractor's proposed Plan.

Instructions to Project Engineer: The last sentence in part 'C' above should be revised or expanded upon to change the meeting to a mandatory requirement, depending on the complexity of Project debris issues.

D. Contractor's Plan will be subject to review by the City Representative. Review of the Contractor's Plan by the City will not relieve Contractor of its responsibility

for compliance with all applicable laws and regulations governing control and disposal of solid waste or other pollutants.

E. Contractor shall review the contents of its Plan with all jobsite workers and subcontractors, and shall make good faith efforts to ensure full compliance with the Plan for the duration of the Contract Work.

1.04 CONSTRUCTION AND DEMOLITION DEBRIS RECOVERY MONTHLY SUMMARY REPORT

A. With each Application for Payment, Contractor shall submit a Construction and Demolition Debris Recovery Monthly Summary Report ("Monthly Report") that quantifies the construction and demolition debris generated and recycled, reused, or transported to an off-site facility during a given monthly progress payment period.

B. Contractor shall prepare the Monthly Report using the form provided in Appendix A to this Document. Contractor must follow all instructions set forth in the form, and include all required supporting documentation.

C. Contractor shall submit the Monthly Report in electronic format (PDF).

1.05 CONSTRUCTION AND DEMOLITION DEBRIS RECOVERY FINAL REPORT

A. Prior to and as a condition to final acceptance of the Work by the City, Contractor shall submit a Construction and Demolition Debris Recovery Final Report ("Final Report"). The Final Report shall quantify the construction and demolition debris generated and recycled, reused or transported to an off-site facility for the entire Work.

B. Contractor shall prepare the Final Report using the form provided in Appendix A to this Document. Contractor must follow all instructions set forth in the form, and include all required supporting documentation.

C. Contractor shall submit the Final Report to the City Representative in electronic format (PDF).

1.06 WASTE REDUCTION MEASURES

A. Contractor shall implement waste reduction measures during performance of the Work including, but not limited to, the following:

1. Eliminate the procurement of unneeded supplies;

2. Reduce office paper waste by printing and copying double-sided;

3. To the extent possible and in conformance with the requirements of the Contract Documents, submit all submittals, reports, and forms in electronic format (PDF);

4. Recycle field office wastes using available recycling and composting programs; and

5. To the extent possible and in conformance with the requirements of the Contract Documents, purchase products made with recycled content.

1.07 COSTS AND EXPENSES

A. All costs and expenses related to the requirements set forth in this Document are incidental to other Work and are included in Contractor's Total Bid Price.

APPEN. A: CONSTRUCTION &DEMOLITION DEBRIS RECOVERY WORKSHEET

To be completed by Contractor & submitted to City Representative. Please complete both pages of form.

Section 1: Project Information			
Project Name:		Project/Job Number:	Reporting Period:
Project Street Address:		City (if not in SF):	
Contractor Name			
Contractor Address			
City, State, Zip Code			
Office Phone:	Cell Phone:	Fax:	e-mail:
Preparer's Name:		Date Submitted	
Preparer's Signature:		Date:	

☐ Original Management Plan
Estimated Start Date:_____ Estimated End Date:_____

☐ Progress Payment Report
Reporting Period (mm/yy):_____ Progress Payment Number:_____

☐ Final Report
Date Project Completed:_____

City Representative Review

City Representative Signature:	Date:

Instructions for Completing Section 2; Other Instructions:

1. Enter the appropriate Diversion Code associated with the kind of material being handled and how the material is being processed.
2. Enter Total Tons of material for each type of material being processed.
3. Enter Tons Recycled for each type of material being processed.
4. Enter Tons Reused for each type of material being processed.
5. Enter Tons diverted as Mixed Debris. Mixed Debris is recyclable material that is taken to a Mixed Debris facility and has not been separated.
6. Enter name of Mixed Debris Facility.
7. Enter name of Hauling Company.
8. Enter corresponding numbers into Diversion Rate Calculation formula at bottom of page and calculate Diversion Rate.
9. Submit completed form to City Representative. For Monthly Reports, attach manifests, weight tickets, receipts, and invoices identifying the Project and waste material for debris handled and processed during the monthly reporting period. For the Final Report, attach manifests, weight tickets, receipts and invoices that were not previously attached to a Monthly Report.

Project/Job Number:_____	Reporting Period:_____	Progress Pmt. Number: _____

Section 2: Debris Recovery Worksheet

IMPORTANT: HAZARDOUS MATERIAL OR UNIVERSAL WASTE MUST BE SUMMARIZED SEPARATELY FROM THIS REPORT. DO NOT INCLUDE ANY HAZARDOUS MATERIALS AND UNIVERSAL WASTE IN THIS REPORT.

Diversion Activity Codes:

1. **Recycling of Source-Separated Materials at a recycling facility.**
2. **On-site concrete or asphalt crushing for use on site.**
3. **Recycling of mixed debris.**
4. **Reuse of salvageable items.**
5. **Reuse of dirt or mixed inerts for landfill construction.**
6. **Other diversion - please describe:**

Worksheet:

Type of Material	Diversion Activity Code	Total Tons	Tons Recycled	Tons Reused	Tons Diverted as Mixed Debris	Facility Used	Transporter
Mixed C&D Debris							
Mixed Inerts							
Asphalt							
Concrete							
Soil							
Bricks, Granite, Finished Stone							
Wallboard, Gypsum sheet rock							
Dimensional Lumber & Beams							
Fixtures, Hardware, Doors, Windows							
Corrugated Cardboard							
Trees, Landscape Debris, Wood Scraps							
Carpet and Padding							
Rigid Plastic							
Acoustical Ceiling Tiles							
Other Materials (describe):							
		A	**B**	**C**	**D**		
Totals							

Diversion Rate Calculation:

B =	+	C =	+	D x 0.65*=	=		÷	A =	=		x **100**	**Diversion Rate =** _____%

** 0.65 represents the minimum diversion rate for Mixed Debris Facilities.*

END OF SECTION

SECTION 01 77 00

CLOSEOUT PROCEDURES

PART 1 – GENERAL

1.01 SUMMARY

A. This Specification Section describes the closeout procedures for this project, including the following items:

1. Close-out Meeting
2. Inspection for Substantial Completion and Final Inspection
3. Final Payment
4. Final Cleaning
5. Project As-Built Documents
6. Release of Liens or Claims
7. Agency and Private Property Owner Signoffs

B. Related Documents and Sections include:

1. Section 00 72 00 – General Conditions
2. Section 01 50 00 – Temporary Facilities and Controls
3. Section 01 78 39 – Project Record Documents
4. Section 01 78 23 – Operations and Maintenance Data
5. Section 01 78 36 – Warranties

1.02 PROCEDURES

A. Close-out Meeting:

1. When the Work is 90% complete, the City Representative will arrange a close-out meeting with the Contractor, to determine the status of completion. The City Representative will provide a list of items and work required for Substantial Completion for discussion of current status and Contractor's plans for completion. The purpose of the close-out meeting

is to plan for an orderly completion of the project within the Baseline CPM schedule.

2. Immediately following the close-out meeting, the City Representative will prepare a list of actions, which are still open, or pending that need to be resolved prior to the Contractor requesting Substantial Completion. Such actions may include, but are not necessarily limited to, equipment and system testing, operator training, operations and maintenance data and manuals, interim Contractors as-built documents, outstanding quality CARs and NCNs, administrative activities and reporting, and documentation of final quantities and force account Work.

B. Substantial Completion Inspection

1. Inspection for Substantial Completion shall be performed in accordance with the General Conditions and may generate a Punch List / Substantial Completion.

C. Punch List / Final Completion

1. When the City Representative determines that Substantial Completion can be granted to the Contractor, the Punch List / Final Completion will be transmitted to the Contractor electronically.

D. Final Inspection:

1. Inspection for Final Completion shall be performed in accordance with Article 9 of the General Conditions.

2. The Contractor's written notice described in Article 9 of the General Conditions shall certify the following:

a. Work has been completed in accordance with the Contract Documents

b. All Punch List / Final Completion items have been completed

c. Demobilization and cleanup of the site has been completed

d. Work is ready for final inspection

E. Prior to the final payment recommendation by the City Representative, the Contractor shall furnish to the City Representative the following administrative close-out submittals:

1. Notice of Final Completion including, if applicable, Certificate of Occupancy as evidence of compliance with the requirements of governmental agencies or local authority having jurisdiction; and

2. Evidence of payment and final release of liens.

F. The Contractor shall submit the following to the City Representative requesting final adjustment of accounts:

1. Request for Final Payment

2. Final statement of accounting, certified payroll records, and final Change Order, if required, showing adjustments to the Contract Sum for all force account Work and allowance items.

3. Other contractual documentation required by the City.

G. All prior estimates and payments shall be subject to correction by the City in the final estimate and payment per the General Conditions.

1.03 FINAL CLEANING

A. Final acceptance of the Work by the City will be withheld and the Contractor subjected to remedies as provided in General Conditions until the Contractor has satisfactorily complied with the requirements herein for final cleanup of the project site.

1. Should the City elect to partially occupy or use portions of the Work prior to completion, the Contractor shall perform final cleaning for those portions of the Work prior to their being so occupied or used.

B. "Clean," as used in this Section, shall mean the level of cleanliness generally provided by skilled cleaners. For interior areas, this involves using commercial quality building maintenance equipment and materials. For exterior areas this means broom cleaning, removal of temporary construction materials and equipment and disposal of all debris and rubbish.

C. The Contractor shall comply with applicable regulatory requirements during cleaning and disposal operations, and use cleaning materials, which will not create hazards to health or property or cause damage to products or Work.

D. The Contractor shall use only cleaning materials and methods, which are compatible with the surface being cleaned, as recommended by the manufacturer of the products to be cleaned.

E. The Contractor shall completely clean structures inside and out and adjacent sidewalks and street to curb. The Contractor shall also perform the following cleaning operations as applicable to the Work:

1. Remove dust, dirt, grease, stains, labels, spilled or spattered materials, and other foreign matter from surfaces exposed to view in the completed Work.

F. The Contractor shall schedule final cleaning operations to prevent resulting dust and other contaminants from adhering to wet or newly finished surfaces and to enable the City Representative to accept a completely clean Work.

G. See additional cleaning requirements specified in Section 01 50 00.

1.04 PROJECT RECORD DOCUMENTS

A. The Project Record Documents per Section 01 78 39 shall be signed and dated by Contractor and submitted to the City Representative prior to issuance of a Notice of Substantial Completion by the City.

1.05 RELEASE OF CLAIMS

A. Contractor and each assignee under any assignment in effect at the time of final payment shall, if required by the City, complete, execute and deliver at the time of final payment, as a condition precedent to final payment, a release using the form attached as Exhibit A to this Section.

1.06 AGENCY AND PRIVATE PROPERTY OWNER SIGN-OFFS

A. The Contractor shall provide a written signed release from each permitting agency that issued an encroachment, fill and grading, or other permit during the course of the project that each permit condition including restoration has been satisfactorily completed.

B. The Contractor shall provide a written signed release from each private property owner for lands used by the Contractor for staging areas, spoils disposal, or other purposes during the course of the project that the lands have has been satisfactorily restored to their pre-construction condition.

1.07 PROJECT SPECIFIC REQUIREMENTS

A. ***[Manual insert field - Project Engineer input (if any) to cover those issues related to closeout procedures which are not already adequately addressed, either within this Baseline Section, or in General Conditions Section 00 72 00.]***

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

EXHIBIT A: FINAL SETTLEMENT AND RELEASE OF CLAIMS
CONTRACT NO. WW-XYZ

SAMPLE PUC CONTRACT

This agreement and release of claims ("Agreement and Release") is made and entered into this _____ day of _____, 20___, in the City and County of San Francisco, State of California, by and between _____, (hereinafter referred to as "Contractor"), whose principal place of business is _____, and the City and County of San Francisco, a municipal corporation, (hereinafter referred to as "City"), acting by and through the San Francisco Public Utilities Commission.

RECITALS

1. WHEREAS, City and Contractor entered into Contract No. WW-XYZ, Sample PUC Contract, (hereinafter referred to as "Contract"); and
2. WHEREAS, The Work under the Contract has been completed and the City has issued a certificate of acceptance for the Work per Administrative Code Section 6.22(k); and
3. WHEREAS, Contractor has submitted its final application for payment.

Now, therefore, it is mutually agreed between Contractor and City as follows:

AGREEMENT

1. Contractor and the City agree as follows:

Original Contract Sum:	$_____
Change Orders (1 through ____ and Final Quantity Adjustment):	$_____
Modified Contract Sum:	$_____
Payments to Date (direct payments to Contractor and releases of retention):	$_____
Retention Remaining in Escrow Account:	$_____
Amount Due before Adjustments for Offsets & Stop Notices:	$_____
Offsets (e.g., OLSE forfeiture, non-conforming work, liquidated damages, etc.):	($_____)
Outstanding Stop Notices (withheld @ 125% of Stop Notice amounts):	($_____)
FINAL PAYMENT DUE CONTRACTOR:	**$_____**
Retention Release to Contractor from Escrow:	$_____
Return of Funds to City from Escrow:	$_____

2. Subject to the provisions of this Agreement and Release, City shall forthwith pay to Contractor the sum of $_____ under the Contract, less any amounts represented by Notices to Withhold Funds on file with the Controller as of the date of such payment.

3. Contractor acknowledges and hereby agrees that there are no unresolved or outstanding claims in dispute against the City arising from the performance of Work under the Contract, except for (i) the Disputed Claims described in Paragraph 4, below, and (ii) continuing obligations described in Paragraph 6, below. It is the intention of the parties in executing this Agreement and Release that, upon Contractor's receipt of the final payment and escrow release amounts identified in Paragraph 1, above, this Agreement and Release shall be effective as a final accord and satisfaction and as a full and final release of all claims, as set forth in the paragraphs below.

4. The following claims are disputed (the "Disputed Claims") and are specifically excluded from the operation of this Agreement and Release:

Contract Claim No.	Date Submitted	Description of Claim	Amount of Claim

Nothing herein shall operate to toll, waive, or excuse Contractor's compliance with the Government Code Claim requirements under California Government Code Section 900, et seq., and San Francisco Administrative Code Chapter 10 as to the Disputed Claims. Refer to Article 13 of Contract Section 00 72 00 (General Conditions).

5. Consistent with California Public Contract Code Section 7100, Contractor hereby agrees that, in consideration of the payment set forth in Paragraph 2, above, Contractor hereby releases and forever discharges the City, its boards and commissions, and all of its officers, agents, members, employees, authorized representatives, assignees and transferees from any and all liability, claims, demands, actions or causes of action of whatever kind or nature arising out of or in any way concerned with the Work under the Contract, about which the Contractor knows or should have known, except for the Disputed Claims.

6. Guarantees and warranties for Work, indemnity, and any other continuing obligation of Contractor, shall remain in full force and effect as specified in the Contract Documents.

7. The provisions of this Agreement are contractual in nature and not mere recitals and shall be considered independent and severable, and if any such provision or any part thereof

shall be at any time held invalid in whole or in part under any federal, state, county, municipal or other law, ruling or regulations, then such provision, or part thereof, shall remain in force and effect to the extent permitted by law, and the remaining provisions of this Agreement and Release shall also remain in full force and effect, and shall be enforceable.

8. All rights of City shall survive completion of the Work or termination of Contract, and execution of this Release.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement and Release on the day first mentioned above.

*****CAUTION: THIS IS A RELEASE – READ BEFORE EXECUTING*****

CITY

By: _____
General Manager, San Francisco Public Utilities Commission

CONTRACTOR

Principal
By: _____

_____
Title

_____
Print Name

APPROVED AS TO FORM:
David Chiu, City Attorney

By: _____
Deputy City Attorney

_____
Print Name

END OF SECTION

SECTION 01 78 23

OPERATIONS AND MAINTENANCE DATA

PART 1 – GENERAL

1.01 SUMMARY

A. This Section describes the following requirements:

1. Requirements for the submission of Contractor prepared Operation and Maintenance ("O&M") Manuals.

2. The Contractor's responsibilities as they pertain to the Operations and Maintenance training of City staff.

B. Related Sections:

1. Section 01 33 00 – Submittal Procedures

2. Section 01 77 00 – Closeout Procedures

3. Section 01 78 36 – Warranties

4. Individual Technical Specifications Sections for which O&M data manuals and training are required.

1.02 REQUIREMENTS

A. The Contractor shall submit all required technical operation and maintenance information (also known as "technical manuals" or "vendor O&M manuals or information") for each item of mechanical, electrical, and instrumentation equipment in an organized manner in the Operation and Maintenance Manual to the City Representative for review and acceptance. The technical operation and maintenance information shall be written so that it can be used and understood by the City's operation and maintenance staff.

B. The Contractor shall inform all equipment manufacturers of the O&M manual requirements and ensure that all associated costs are included in the costs for furnishing the equipment item and/or system.

1.03 CONTENTS

A. The Technical Manual shall be subdivided first by specification section number; second, by equipment item; and last, by "Category." The following "Categories" shall be addressed (as applicable):

1. Category 1 – Equipment Summary

   a. Summary: A table shall indicate the equipment name, equipment number, and process area in which the equipment is installed.

   b. Form: Contractor shall fill in, electronically using computer spreadsheet software, the relevant information of each item of Mechanical, Electrical and Instrumentation equipment on the Equipment Data Sheets ("EDSs") provided in the internet links and listed individually below. Refer to sample EDSs in Appendix A. Electronically fill out one EDS per item in the native spreadsheet format and submit to the City Representative and include printed copies of each EDS in the Technical Manual. If the Plans show items but items' relevant EDSs are not listed below, Contractor shall still be responsible to complete the relevant EDSs. Contractor shall download the files(s) listed below before submitting its bid for this contract.

      1) Water EDSs – obtain from internet link and omit the line break: https://infrastructure.sfwater.org/fds/fds.aspx?lib=SFPUC&doc=946733&ver=1&data=364492205

         The City Representative may provide more up-to-date versions of the Water EDSs with up to 5 additional fields for similarly available information. Such EDSs will supersede those obtained from the link above. When completing EDSs, follow the Equipment Data Collection Sheet Instructions within the file opened by the link above. Complete, at a minimum, the following types of EDSs:

         [Manual Edit – Project Engineer deletes EDSs not needed and leaves in place those that are desired. If all EDSs are deleted, consider eliminating this entire Section 01 78 23. Generally only use all Wastewater EDSs or all Water EDSs. Use CTRL+SPACE to convert items below to black-colored contract text.]

         A) Electrical
            1) ***Air Switch***
            2) ***ASD-VFD.xls***
            3) ***Automatic Transfer Switch.xls***
            4) ***Control Panel.xls***
            5) ***Electrical Motor.xls***
            6) ***Fire Alarm System.xlsx***

7) *HV Potential Transformer.xls*
8) *LV Enclosed Main Circuit Breaker.xlsx*
9) *MCC, Switchboard & Switchgear.xls*
10) *Mini Power Center.xlsx*
11) *Motor Starter.xls*
12) *Motorized Actuator.xls*
13) *MV & IC Circuit Breaker.xls*
14) *MV Transformer Load Tap Changer.xls*
15) *Neutral Grounding Resistor.xls*
16) *Ozone Generator PSU.xls*
17) *Panelboard.xls*
18) *Photovoltaic System Array.xlsx*
19) *Photovoltaic System Inverter.xlsx*
20) *PLC.xls*
21) *Power Factor Correction Capacitor.xls*
22) *Process Analyzer.xls*
23) *Process Instrumentation.xls*
24) *Protective Relay.xls*
25) *Standby Generator Load Bank.xlsx*
26) *Standby Generator.xls*
27) *Switchgear DC Battery System.xls*
28) *Transformer.xls*
29) *TVSS.xls*
30) *UPS.xls*
31) *UV Reactor PSU.xls*
32) *UV Reactor.xls*

B) Mechanical

1) *Air Compressor data sheet.xls*
2) *Air Receiver tank data sheet.xls*
3) *Air Release Valve data sheet.xls*
4) *Automatic Siphon data sheet.xls*
5) *Back Pressure regulator data sheet.xls*
6) *Blower data sheet.xls*
7) *Centrifugal Sludge Collector Data Sheet.xls*
8) *Crane-Hoist-Winch data sheet.xls*
9) *Desiccant Dryer Data Sheet.xls*
10) *Diesel fuel polishing system data sheet.xls*
11) *Evaporator Data Sheet.xls*
12) *Fan data sheet.xls*
13) *Fire Pump data Sheet.xls*
14) *Fire Suppression Data Sheet.xls*
15) *Gearbox Data Sheet.xls*
16) *Heat Exchanger data Sheet.xls*
17) *Heat Pump data sheet.xls*
18) *High Pressure Oil Accumulator Data Sheet.xls*
19) *HVAC - Air Conditioning Data Sheet.xls*

20) HVAC - Air Handling Unit Data Sheet.xls
21) HVAC - Boiler data sheet.xls
22) HVAC - Fan Coils Data Sheet.xls
23) HVAC - Furnace Data Sheet.xls
24) HVAC - Heat Pump Data Sheet.xls
25) HVAC - Water Heater Data Sheet.xls
26) Hydraulic Unit Data Sheet.xls
27) Mixer Data Sheet.xls
28) Motorized Damper data sheet.xls
29) Ozone Generator Data Sheet.xls
30) Ozone Off Gas Destruct Unit Data Sheet.xls
31) Pressure Relief Valve data sheet.xls
32) Pump data sheet.xls
33) Screw Press Sludge Collector Data Sheet.xls
34) Sluice Gate data Sheet.xls
35) Sump Pump data sheet.xls
36) Tank Data Sheet.xls
37) Tempered Water System data sheet.xls
38) Valve Data Sheet.xls
39) Venturi Meter data sheet.xls
40) Water Heater data sheet.xls

2) Wastewater EDSs – obtain from link: https://sfpuc.sharefile.com/d-sebad821a88e410fa

A) Copy worksheet tab(s) within spreadsheet file as necessary for multiple EDSs of the same type of equipment. Complete, at a minimum, the following types of EDSs:

1) ACTUATOR
2) ACCESS GATE
3) ACCESS GATE OPERATOR
4) AERATOR
5) AIR DRYER
6) AUTOMATIC TRANSFER SWITCH
7) BACKFLOW DEVICE
8) BELT PRESS
9) BOILER
10) BREAKER
11) BUILDING
12) CATCH BASIN
13) CCTV
14) CENTRIFUGE
15) CONVEYOR
16) CRANE
17) COMPRESSOR
18) ELEVATOR
19) EQUIPMENT
20) EXPANSION TURBINE

21) FAN/BLOWER
22) FILTER
23) FLARE
24) GATE
25) GEAR BOX
26) GENERIC ELECTRICAL
27) GENERATOR
28) GENERIC MECHANICAL
29) HVAC
30) HYDRAULIC UNIT
31) INTERCEPTOR
32) MANHOLE
33) MCC
34) MIXER
35) MOTOR
36) MOTOR STARTER
37) PIPE
38) PLC
39) PROCESS INSTRUMENTATION
40) PROCESS STRUCTURE
41) PROTECTIVE RELAY
42) PUMP
43) SAMPLER
44) SCADA
45) SCREEN
46) SCRUBBER
47) SLUDGE GRINDER
48) SOLAR PANEL
49) SUBSTATION
50) SWITCH
51) SWITCH BOARD/PANEL BOARD
52) TANK
53) TRANSFORMER
54) UPS
55) VALVE
56) VAULT
57) VEHICLE
58) VFD
59) WELDER
60) FIRE ALARM SYSTEM
61) CANOPY – Point Supported
62) LIGHTING FIXTURE
63) DOOR FRAME HARDWARE

c. System schematic drawing which indicates system components

d. Detailed functional description of each component of the system

e. Control schematic indicating location of system controls

2. Category 2 – Operational Procedures

a. Procedures: Manufacturer-recommended procedures on the following shall be included in the Operational Procedures section:

1) Installation

2) Adjustment

3) Startup

4) Location of controls, special tools, equipment required, or related instrumentation needed for operation

5) Operation procedures

6) Load changes

7) Calibration

8) Shutdown

9) Troubleshooting

10) Disassembly

11) Reassembly

12) Realignment

13) Testing to determine performance efficiency

14) Tabulation of proper settings for pressure relief valves, low and high pressure switches, and other protection devices

15) List of all electrical relay settings including alarm and contact settings

3. Category 3 – Preventive Maintenance Procedures

a. Procedures: Preventive maintenance procedures shall include manufacturer-recommended procedures to be performed on a periodic basis, both by removing and replacing the equipment or component, and by maintaining the equipment in place.

b. Schedules: Recommended frequency of preventive maintenance procedures shall be included. Lubrication schedules, including lubricant SAE grade, type, and temperature ranges, shall be covered.

4. Category 4 – Parts List

a. Parts List: A complete parts list shall be furnished, including a generic description and manufacturer's identification number for each part. Addresses and telephone numbers of the nearest supplier and parts warehouse shall be included. Also describe any special

tools that are required to maintain the equipment, and identify spare parts recommended by the Manufacturer to be kept in stock.

b. Drawings: Cross-sectional or exploded view drawings shall accompany the parts list. Part numbers shall appear on the drawings with arrows to the corresponding part.

5. Category 5 – Wiring Diagrams

a. Diagrams: Category 5 shall include complete internal and connection wiring diagrams for electrical equipment items.

6. Category 6 – Supplemental Drawings

a. Drawings: This category includes manufacturer supplied drawings including installation drawings, interconnection wiring diagrams between equipment and components, and component schematics.

7. Category 7 – Safety

a. Procedures: This category describes the safety precautions to be taken when operating and maintaining the equipment or working near it.

8. Category 8 – Documentation:

a. Equipment warranties, affidavits, certifications, calibrations, laboratory test results, etc. required by the Technical Specifications shall be placed in this category.

b. For each level transmitter, controller, power monitor and all other items of instrumentation and control equipment furnished under this Contract, provide a separate sheet showing actual programmed or field settings for that equipment item.

c. For each level transmitter, controller, power monitor and all other items of instrumentation and control equipment furnished under this Contract, provide a calibration sheet, signed and dated by the person responsible who actually calibrated that instrument.

d. Complete description of field test procedures for each equipment item furnished under this Contract which requires field testing.

e. Actual field test results for each equipment item furnished under this Contract which has been field tested.

f. Provide a complete list of manufacturers' serial numbers for each equipment item installed under this Contract.

1.04 FORMAT

A. Each O&M Manual shall be bound in standard size 3-ring hardcover binders labeled on the spine and cover with project name, City's contract number,

specification section number, equipment name, and equipment identification number.

B. Each Binder shall contain its own detailed table of contents at the front, plus a summary level table of contents information for the other binders in a multi-binder set.

C. Documents in binders shall be 3-hole punched, no text shall be punched out, and pages larger than 8-1/2 by 11 inches shall be folded to 8-1/2 by 11 inches.

D. Each O&M binder shall have tabbed divider pages separating sections.

E. Each final set of O&M Manuals shall include a CD or DVD with electronic files:

1. All O&M manual text material that has been created for the O&M manual shall be written in the latest version of Microsoft Word. Two copies of DVD-ROMs with the final accepted text written for the equipment O&M manuals shall be transmitted to the City.

2. Drawings that have been generated by the Contractor for a particular job's O&M manual shall be in the latest version of AutoCAD. Two copies of DVD-ROMs with the final accepted AutoCAD Drawings shall be transmitted to the City.

3. Equipment Data Sheets, as described in Article 1.03.A.1.b., above, are to be completed electronically and submitted without changing the native Microsoft Excel format (e.g., do not convert to PDF, do not add or delete cells, do not alter pre-filled cells, etc.).

1.05 REVIEW PROCESS

A. The Contractor shall furnish four draft O&M Manuals for each Specification Section that requires a manual. Upon review completion, the City Representative will retain one copy, will forward two copies to the City, and will return one copy to the Contractor with review comments.

B. The Contractor shall incorporate City Representative's review comments into the draft and submit five copies of the final OM Manual for acceptance.

1.06 SCHEDULE

A. Except where indicated otherwise, O&M Manuals shall be submitted in final accepted form to the City Representative not later than 30 days prior to any scheduled training. If training is not required for a particular O&M manual, the O&M manual shall be submitted in final accepted form to the City Representative not later than 30 days prior to operation of equipment. Discrepancies found by the City Representative shall be corrected within 30 days from the date of written notification by the City Representative.

B. The City Representative may retain monies if manuals are incomplete or unacceptable at the required submission date.

1.07 CITY PERSONNEL TRAINING

A. Minimum onsite requirements for equipment and system training are described in the individual Technical Specification Sections for each equipment item.

B. Except as noted otherwise, all cost for training shall be considered incidental to the work of this Contract.

C. Unless a specified duration is provided in the individual item Specification Section, the training for each item shall be a minimum of two identical content 8 hour modules or two separate 8 hour sessions with separate content and discussion.

D. Training Requirements

1. The Contractor shall furnish all labor, materials, equipment, and incidentals necessary to train the City staff on the equipment, product, and systems provided under the Contract.

2. Objective of Training: The objective of the training shall be to convey the knowledge needed by the City operations, maintenance, and engineering staff to safely operate, maintain, and repair the equipment and systems provided under the Work. Training shall be focused to the skills and job classifications of the staff attending the classes (e.g., plant manager, plant operator, maintenance technician, electrician, etc.). Supporting documentation, such as O & M Manuals, shall be furnished to assist the instruction learning process and to serve as a source of information to the City's staff after training.

E. Unless specifically indicated otherwise, all training shall be conducted in accordance with the following general requirements.

1. Scheduling of Classes:

a. The Contractor shall designate and provide one person to be responsible for coordinating and expediting the Contractor's training duties. This person shall be present at all training coordination meetings with the City Representative.

b. Training shall not be scheduled until the manufacturer has verified that the equipment is installed and performs properly. Startup services and training services will be required at separate times which will involve separate trips.

c. The Contractor shall submit to the City Representative a schedule for training of City operating personnel by equipment

manufacturers. This schedule shall list the estimated completion dates for the installation of all equipment and systems requiring the services of manufacturers' representatives, as stated in the individual Technical Specification Sections. The schedule of training shall be submitted as a bar chart schedule but also included in the Baseline CPM Construction Schedule.

d. The Contractor shall coordinate the pre-startup training periods with the City Representative and manufacturers' representatives. Complete all pre-startup training a minimum of 14 days prior to actual startup of the work.

2. Number of Classes on Each Subject: A minimum of two classes on identical subject matter shall be conducted unless otherwise indicated. The City Representative shall have the option, however, of requiring two total classes, but each class shall contain discrete copies of training material to allow for retention of material.

3. A maximum of one class per day shall be held on consecutive days unless otherwise approved by the City Representative. Multiple classes may be scheduled if the class duration is shorter than 4 hours.

4. Each class shall be subdivided into 2 to 8 hour modules, or as appropriate for the subject matter being discussed.

5. Instruction Format: The training for operations personnel and for maintenance personnel shall be provided as separate entities. The training for maintenance personnel shall be further subdivided into three trade groups: mechanical maintenance, electrical maintenance, and instrumentation and controls maintenance.

6. Class Agenda: A class agenda shall be prepared by the organization conducting the training and submitted to the City Representative at least 4 weeks in advance of the date of the first corresponding class. The agenda shall include a listing of subjects to be discussed, time estimated for each subject, list of documentation to be used or furnished to support training, and instructor name. Agendas shall include an allocation of time for City staff to ask questions and discuss the subject matter. The City Representative may request that particular subjects be emphasized and the agenda shall be adjusted to accommodate these requests. Copies of the agenda shall be distributed to each participant at the beginning of each training session.

7. Number of Students: It is estimated that 5 to 10 persons will attend each training session. The actual number of participants will be determined by the City Representative. The City Representative will provide an estimated “headcount” one week prior to the session, so that the instructor can furnish the correct number of training aids for participants.

8. Training Location: Unless otherwise indicated, all training shall be conducted at a location determined by the City Representative. If necessary and appropriate as determined by the City Representative, training shall be conducted at off-Site locations or the actual installed location of the equipment, product, or system. With the exception of training held at the manufacturer's or vendor's facility, when training is held off-Site, the City Representative will be responsible for making and paying for classroom arrangements.

9. Instructor Qualifications: Instructors shall be completely knowledgeable in the products, systems, and functions for the equipment provided. Instructor name and qualifications shall be submitted one month prior to start of training. Sales representatives are not qualified instructors unless they possess the detailed operating and maintenance knowledge required for proper class instruction. If, in the opinion of the City Representative, the scheduled training was not provided by an appropriately knowledgeable person, such training shall be rescheduled and repeated with a suitable instructor at no additional cost to the City.

10. Training Aids: Each instructor is encouraged to use audio-visual devices, P&IDs, models, charts, and so forth to increase the transfer of knowledge. The organization conducting the training shall furnish all such equipment (televisions, DVD/video cassette recorder/player, projectors, screens, easels, etc.), models, and charts for each session. It shall be the responsibility of the organization conducting the training to confirm in advance that the class room will be appropriate for the types of audio visual equipment to be employed.

11. Classroom Documentation: If training is being completed on equipment, systems, or products for which an O&M Manual is required, this O&M Manual shall be complete and used during the classroom instruction. Each attendee shall have an O&M Manual available for classroom use. Supplemental documentation handouts shall be furnished to support instruction.

    a. Where written materials are used, sufficient copies shall be provided for each attendee, with at least four extra copies provided to the City Representative for training documentation. All written materials shall be identified with the name of the training module, subject matter, date of training, and instructor name.

12. Testing: Instructor shall test operation and maintenance personnel following the completion of training. The purpose of this testing shall be to determine the effectiveness of the training program and to determine the ability of the City's personnel to safely operate and maintain said processes. Testing shall be comprised of multiple choice and true / false questions.

13. The Contractor shall video tape and audio record all training in digital format and shall be available in AVI, or MPEG format. City Representative reserves the right to videotape, photograph, audio record, and otherwise document any or all training sessions. The organizations conducting the training and the Contractor shall cooperate with the City Representative in making such documentation, which shall remain the exclusive property of the City.

F. Additional training requirements for specific equipment and systems may also be indicated elsewhere in these Specifications.

G. Safety and Health Training: The Contractor shall furnish safety and health training to the City personnel, which describes the procedures required to safely and healthfully operate and maintain the equipment. Safety and health training shall also include standard procedures for emergency response and safe shutdown of equipment in emergency conditions. Incorporate appropriate OSHA regulations including personnel protective equipment and its use and other means of injury and illness prevention such as precautions and engineering controls. Three one day safety training sessions shall be conducted.

1.08 PROJECT SPECIFIC REQUIREMENTS

A. ***Not Used***.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

APPENDICES – Samples of the required Equipment Data Sheets as referenced in Article 1.3.A.1.b are provided on the following pages of this Section to indicate the general data types required to be entered in the native spreadsheet software.

SAMPLE WATER EDS: ELECTRICAL MOTOR

FIELDS	INFORMATION
ASSET ID	
ASSET NAME	
LOCATION	
MANUFACTURER	
MODEL NO.	
CONTRACT NO./PO NO.	
CONTRACT NAME/PROJECT NAME	
INSTALLATION DATE	
HP	
FRAME SIZE	
VOLTAGE	
FULL LOAD AMPS	
PHASE	
RPM	
SERIAL NO.	
MANUFACTURED DATE	
LOCKED-ROTOR CODE LETTER	
DUTY	
ENCLOSURE TYPE	
INSULATION CLASS	
SERVICE FACTOR	
FULL LOAD EFFICIENCY	
NEMA DESIGN CODE	
MOTOR FED FROM	
VFD OR STARTER LOCATION	
FREQUENCY	
AMBIENT TEMPERATURE	
WEIGHT	
LUBRICATION	
SPACE HEATER SIZE	
SPACE HEATER VOLTS	
SPACE HEATER FED FROM	
OUTBOARD BEARING	
INBOARD BEARING	
EXCITATION VOLTS	

EXCITATION AMPS	
O&M MANUAL HUMMINGBIRD LINK	
WARRANTY EXPIRATION DATE	
COMMENTS	
COMMENTS	

DATA COLLECTOR NAME	
DATA COLLECTOR SIGNATURE	
DATE	

Data Collection Guidelines:

1. See Instruction Sheet for detail information on how to complete each field.
2. Any information not available in the nameplate shall be completed at the office using the O&M manual for the equipment.
3. Any fields not applicable to the equipment should be filled with “N/A”.
4. Use the Comments field to make note of any additional information. The Comments field shall also be used to note any specialized maintenance required by the equipment.

SAMPLE WASTEWATER EDS: BREAKER

PROJECT NO.		SPEC:	
PROJECT LOCATION:		DATA SHEET NO.	
		REVISION:	
ENGINEER:		DATE:	

PART I BREAKER – DATA SHEET

GENERAL DATA

EQUIPMENT:		ITEM NO.	
MANUFACTURER:		P.O. NO.	
MODEL NO.		VENDOR:	
SERIAL NO.		CONTRACT NAME:	
CATALOG NO.		CONTRACT NO.	
ORDER NO.		GENERAL CONTRACTOR:	
BREAKER TYPE:			

CHARACTERISTICS

VOLTAGE CLASS:		VOLTAGE SIZE:	
RATED VOLTAGE:		MAX. VOLTAGE:	
CONTROL VOLTAGE:			
RATED AMPERAGE:		PHASE:	
BIL:		AMPS:	
INTERRUPTING AMPS:		MAX. INTERRUPTING AMPS:	
MOMENTARY AMPS:		FREQUENCY:	
OPERATING MECHANISM TYPE:		OPERATING MECHANISM MODEL:	
CLOSING TIME:		RATING PLUG:	
SHORT CIRCUIT RATING:		CLOSING LATCH RATE:	
INTERRUPTING TIME:		PERMISSIBLE TRIP DELAY:	
CLOSING COIL CURRENT:		TRIPPING COIL CURRENT:	
PROTECTIVE DEVICES:		ASSET SOURCE (FED BY):	
FED BY:		FEEDS:	
RUN TIME (IN HOURS):			

PART II – ASSET SUMMARY DATA SHEET

MAXIMO DATA FIELDS

ASSET ID (EQ ID)	
INVENTORY ITEM NO.	
LOCATION ID / ASSET LOCATION	
ASSET DESCRIPTION	
DOCUMENT MANAGEMENT NO.	

MILESTONE DATES

MANUFACTURED DATE	
SUBSTANTIAL COMPLETION DATE	

ASSET DELIVERY DATE			
ASSET ACCEPTANCE DATE			
ASSET INSTALLATION DATE			
WARRANTY START DATE			
WARRANTY END DATE			
WARRANTY BASED ON DELIVERY DATE (Y/N)		DURATION (IN MONTHS/YEARS)	
WARRANTY BASED ON INSTALLATION DATE (Y/N)		DURATION (IN MONTHS/YEARS)	
WARRANTY BASED ON ACCEPTANCE DATE (Y/N)		DURATION (IN MONTHS/YEARS)	
LAST SERVICE OVERHAUL DATE			
FINANCIAL AND COST INFORMATION			
EXPECTED ASSET (MANUFACTURER) LIFE (IN YEARS)			
LIFE CYCLE COST ($)			
ASSET UTILITIES EST. COST PER YEAR ($)			
ASSET OPERATION/LABOR EST. COST PER YEAR ($)			
ASSET MAINTENANCE EST. COST PER YEAR ($)			
ASSET PO COST WITH TAX AND DELIVERY ($)			
ASSET TOTAL INSTALLED COST ($)			
ORIGINAL VALUE ($)			
REPLACEMENT VALUE ($)			
PROCUREMENT FUNDING SOURCE			
OPERATIONS FUNDING SOURCE			
MAINTENANCE FUNDING SOURCE			
MISCELLANEOUS INFORMATION			
GPS COORDINATE - X			
GPS COORDINATE - Y			
GPS COORDINATE - Z			
CONFINED SPACE (Y/N)			
CAPACITY			
FUNCTIONALITY			

END OF SECTION

SECTION 01 78 36

WARRANTIES

PART 1 – GENERAL

1.01 SUMMARY

A. This Section includes the following topics:

1. Requirements
2. Submittal Requirements
3. Quality Assurance
4. Warranty Conditions
5. Forms for Certificates of Guarantee/Warranty
6. Additional Project Specific Requirements (if used)

B. Related Documents and Sections:

1. Section 00 72 00 – General Conditions, Paragraphs 3.18, 8.03, 9.07, and 9.08.
2. Section 01 77 00 – Closeout Procedures
3. Section 01 78 23 – Operations and Maintenance Data
4. Individual Technical Specifications Sections (Division 02 through 48) in which Manufacturers' or Suppliers' Warranties are required for specific products or work.

1.02 REQUIREMENTS

A. Prior to performing any corrective warranty work, the Contractor shall furnish the City with proof of insurance. Insurance coverage shall be equivalent to that specified in Section 00 73 16.

B. The Contractor shall comply with all quality and performance requirements for guarantees/warranties specified in the individual Specification Sections (Divisions 02 through 48).

C. The Contractor shall include a copy of each equipment and each equipment system Warranty in the appropriate chapter of the Operation and Maintenance Manual. Each of these equipment and equipment system Warranties shall be accompanied by documentation of quality control tests performed and all such other tests as required under this Contract.

D. These equipment and equipment system warranties shall be in addition to and not a limitation of other rights the City may have under the Contract and which may be prescribed by law, irrespective of the wording of supplier's/manufacturer's standard warranty.

1.03 SUBMITTAL REQUIREMENTS

A. Contractor shall submit guarantees/warranties (as specified in Divisions 02 through 48) within 7 days following either:

1. The date of the City's determination that the Contractor has achieved Substantial Completion (for Work not described as incomplete in the Punch List / Final Completion).

OR

2. The Partial Utilization date (specified in the Notice of Partial Utilization) for a particular item of work, piece of equipment, or system. Refer to subparagraph 9.07F of the General Conditions for further details regarding Partial Utilization.

3. For Work described as incomplete in the Punch List / Final Completion, Contractor shall submit guarantees/warranties prior to and as a condition precedent to Final Completion.

B. Contractor shall submit one copy of each guarantee/warranty form as shown in the Article, below, entitled "FORM OF GUARANTEE/WARRANTY, BY SUPPLIER/MANUFACTURER" of this Section, as applicable.

C. Submit all Warranty documentation in electronic format (PDF or similar format). Include electronic bookmarks to match the Table of Contents.

D. The Contractor shall provide a cover page with the title WARRANTIES, with title of Contract; name, address and telephone number of Contractor and name of Contractor's responsible principal employee.

E. The Contractor shall provide a neatly typed Warranty Table of Contents.

F. The Contractor shall separate each warranty with index tab sheets keyed to the Table of Contents listing including plain language description and corresponding equipment identification numbers, using separate typed sheets

as necessary. The Contractor shall provide a list of subcontractors, suppliers, and manufacturers, with names, addresses, and telephone numbers of responsible principals for each Form of Warranty/Guarantee, By Supplier/Manufacturer, below.

1.04 QUALITY ASSURANCE

A. Refer to Article, below, titled "FORM OF GUARANTEE/WARRANTY, BY SUPPLIER/MANUFACTURER," of this Section. The required guarantees/warranties executed by the Contractor and subcontractor, installer, supplier, or manufacturer (if applicable) responsible for that portion of the work are subject to the City's verification that the documents are in proper form and contain complete information. Contractor shall correct and resubmit deficient guarantees/warranties before Final Completion.

B. Acceptance of supplier's/manufacturer's guarantees/warranties by the City shall not be construed to limit the City's recourse against the Contractor for correction of defects under the law and in accordance with the General Conditions during the Guarantee to Repair Period.

1.05 WARRANTY CONDITIONS; GUARANTEE TO REPAIR PERIOD

A. The Contractor shall warrant that Work performed under this Contract conforms to the Contract Documents and is free of any defect of equipment, equipment system, material, installation, design furnished, or workmanship furnished by Contractor, and/or its subcontractors, suppliers, manufacturers and design professionals.

B. Term of the Guarantee to Repair Period. Except as otherwise required in the individual Specification Sections, the Contractor guarantees/warrants the Work against defects for 24 months following the date of the Notice of Substantial Completion certificate issued by the City, or, for portions of the Work which are used or occupied by the City prior to the date of Substantial Completion, for 24 months following the date specified in the Notice of Partial Utilization. Should this paragraph differ from the term of the Guarantee to Repair Period specified in Paragraph 8.03B of the General Conditions, this paragraph shall govern. All other provisions set forth in Paragraph 8.03 shall apply during the Guarantee to Repair Period, as amended by this Section.

C. During the Guarantee to Repair Period, promptly after receipt of written notice from the City, the Contractor shall remove, replace, or correct Work, or portion thereof, that the City determines is damaged, defective, or not in accordance with the Contract.

1. If the Contractor fails to undertake and complete such remedial work in a timely manner, the City may perform the remedial work with its own

forces or under a separate Contract, and the Contractor shall reimburse the City for all costs incurred.

2. The City reserves the right to remove and store defective equipment or material at the Contractor's expense.

3. If the Contractor does not pay the costs of such removal and storage within 10 days thereafter, the City may, upon 10 additional days written notice, dispose of such defective items and shall account for the net proceeds, if any, after deducting all the costs that have been borne by the City, including compensation for City Representative's additional services.

4. If the proceeds from the disposal are insufficient to cover all amounts chargeable to the Contractor, the Contractor shall pay the difference to the City. City may, but is not required to, seek to obtain proceeds from disposal. City shall have no liability to Contractor based on the value of any disposed item(s).

1.06 FORM OF GUARANTEE/WARRANTY FOR GUARANTEE TO REPAIR PERIOD

A. The Contractor shall submit to the City a certificate covering the Guarantee to Repair Period as follows:

GUARANTEE/WARRANTY FOR SFPUC
WW-XYZ
Sample PUC Contract

We hereby guarantee/warrant that we have completed the Work of this Contract in accordance with the requirements of all applicable Contract Documents.

We agree to repair or replace any or all of our Work that the City determines is defective in its workmanship, material, or Contractor-furnished design within a period of 24 months from the date of issuance of the Notice of Substantial Completion of the above named Project. We also agree to repair or replace any adjacent work that may be damaged as a result of the defective work or as a result of repairing or replacing defective work. We agree to repair any and all damages resulting from defective Work without any expense to the City, ordinary wear and tear and unusual abuse or neglect by the City excepted.

In the event of our failure to comply with the foregoing conditions within 10 days after being notified in writing by the City, we collectively or separately hereby authorize the City to proceed to have such defective work repaired or replaced and made good at our expense, and we will pay to the City all costs and charges therefore upon demand.

Signed_____ Date _____

Contractor Name: _____

Address:_____ License No. _____

Substantial Completion of the work was granted by the City on _____ (*date*)

Signed: _____ (City Representative) Date:_____

1.07 FORM OF GUARANTEE/WARRANTY, BY SUPPLIER/MANUFACTURER

A. Supplier/Manufacturer guarantees/warranties for Specific Items of Equipment or Equipment Systems in accordance with the quality and performance standards detailed in Division 02 through 48 of the Technical Specifications for the Guarantee to Repair Period. Submit separate Guarantee/Warranty certificates by Supplier/Manufacturer for each mechanical and electrical piece of equipment and equipment system and submit separate certificates for each equipment / equipment system with specific Division 02 through 48 Guarantee/Warranty requirements:

(*Supplier/Manufacturer Letterhead*)

GUARANTEE/WARRANTY FOR EQUIPMENT / EQUIPMENT SYSTEM INSTALLED BY CONTRACTOR OR SUBCONTRACTOR

_____ (*Name of Supplier or Manufacturer*), agrees to repair defects in or furnish and install replacement of the following equipment / equipment system if found to be defective.

Owner: San Francisco Public Utilities Commission, City and County of San Francisco
Description of Equipment / Equipment System:

_____
_____*(Include Manufacturer name, model number, serial number, and such other information as needed to positively identify the equipment / equipment system.)*
Location of Equipment / Equipment System: _____
Installed under: WW-XYZ Sample PUC Contract
Date Installed:_____
Partial Utilization Date:_____ (if any)
Date of Contract Substantial Completion:_____
Warranty Start Date: _____
Warranty End Date: _____
This guarantee/warranty is effective upon the Warranty Start Date and shall remain effective until the Warranty End Date. The Supplier/Manufacturer agrees to the warranty conditions as specified in the hereinabove referenced Contract.
Name and address of Supplier/Manufacturer:

_____
Signed by Supplier's / Manufacturer's Agent: _____
Date: _____
Title _____
Name of Contractor: _____
Signed By: _____ Title:_____ Date: _____
Acknowledged by City Representative:_____ Date:_____

1.08 ADDITIONAL PROJECT-SPECIFIC REQUIREMENTS

A. ***Not Used***.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 78 39

PROJECT RECORD DOCUMENTS

PART 1 – GENERAL

1.01 SUMMARY

A. This Section sets forth requirements and procedures for the Contractor to maintain updated Project Record Documents required under the Contract and to submit updated record documents to the City Representative.

B. Related Documents and Sections include:

1. Section 01 33 00 – Submittal Procedures

2. Section 01 77 00 – Closeout Procedures

Delete part "3" below if Section 26 04 00 is not included as a part of this project:

3. Section 26 04 00 – General Requirements for Electrical

1.02 GENERAL REQUIREMENTS

A. The Contractor is responsible for maintaining up-to-date project record documentation. The Contractor shall make the up-to-date record documentation available for monthly inspection by the City Representative, and at any other time requested by the City Representative.

B. The Contractor is responsible for maintaining two sets of Project Record Documents: one on-site working set and another one in a secure, off-site location, so that in the event of loss of the Project Record Documents at the jobsite, these can be accurately reconstructed and replaced.

C. Following completion of the Contract work, the Contractor is responsible for submitting Project Record Documents meeting the requirements of the Specifications.

D. The Contractor shall maintain an ordered, clean, completed, indexed and easily accessible filing system for all Project Record Documents.

E. Definitions:

1. **Contract Drawings**: Drawings issued for bid and drawings issued by addenda during the bid period.

2. **Project Record Documents**: Interim Contractor Record Documents, Record Shop Drawings and Final Record Documents, which include, but are not limited to: Drawings, Specifications, Addenda, Change Orders, Requests For Information ("RFIs"), Equipment Data Sheets, clarifications, Field Orders, approved shop drawings, samples and other submittals, clearly marked to record accurately the Work as actually constructed ("record documents"), including changes, adjustments, and other information relative to the Work.

3. **Interim Contractor Record Documents**: Documents which the Contractor updates throughout construction to show all changes or variations between designed and as-constructed facilities.

4. **Record Shop Drawings**: Approved Contractor's proposed installation and equipment details based on field conditions and requirements and considered and/or acknowledged as record documents, provided the Contractor has stamped them "record documents" and submitted them as such.

5. **Final Record Documents**: Final submittal by the Contractor of the Record Documents reflecting all the changes from the Contract Drawings and specifications, shop drawings, etc. made and actually constructed. The Final Record Documents are certified by the Contractor and the City Representative as marked-up construction documents representing facilities as constructed.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.01 REQUIREMENTS

A. The Contractor shall maintain at the Contractor's jobsite office an accurately marked, up-to-date set of Project Record Documents to document work actually installed and conditions encountered. The Contractor shall accurately indicate on the Interim Contractor Record Documents all site conditions, measurements, dimensions, locations of utilities, all changes made by clarifications, RFIs, Change Orders, and other modifications to the Contract Documents and details as specified herein and as approved by the City Representative.

B. The Contractor shall have a designated person to be responsible for updating and maintaining the Interim Contractor Record Documents.

C. The on-site set of Interim Contractor Record Documents shall be kept in a safe place and protected from damage by weather and manhandling. The Contractor shall store Project Record Documents apart from other documents used for

performing the work and shall keep them in a dry and legible condition in good order.

D. The Contractor shall keep Interim Contractor Record Documents up to date during the entire progress of the work, and make them available to the City Representative at any time. Updates are to occur no more than 5 working days after changes in the work are made.

3.02 PROCEDURES

A. After the Notice to Proceed, the City Representative will provide the Contractor two dedicated sets of full-size unmarked Contract Drawings specifically for the incorporation of detailed record documents changes and subsequent approval of those changes by the City Representative. The Contractor is to use one set for maintaining the up-to-date Interim Contractor Record Documents at the field office. All information in the Interim Contractor Record Documents is to be transferred to the second, off-site set of drawings monthly.

B. All lines and notations on the up-to-date Interim Contractor Record Documents shall be neat, accurate, legible, and capable of being scanned into PDF format (or other electronic media file format as specified) such that copies made from the scanned files are as legible as the original.

C. The Contractor shall record all changes on the Interim Contractor Record Documents. The updated Interim Contractor Record Documents shall include but not be limited to the following:

1. Field changes or adjustments in the final location or in the final dimensions or details of the Contract work relative to actual existing site conditions.

2. Changes resulting from RFIs

3. Changes made by Change Order work

4. Changes made by Field Order work

5. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to visible and accessible features of the Work

6. Details not included on the original Contract Drawings but incorporated into the work by reference to approved shop drawings, product data, samples, calculations or other submittals

7. Location of items embedded in concrete such as conduits, cables, junction boxes, piping, reinforcing steel, etc.

8. Measured depths of foundations in relation to finish main floor datum.

9. Measured locations of internal utilities and appurtenances, referenced to visible and accessible locations or features of the Work

10. Location (to within 1-inch) of the centerline of each run of conduits, circuits, piping, ducts, and similar items which are shown schematically on the drawings, but where the final physical arrangement is determined by field conditions

11. Other applicable technical information.

D. The Interim Contractor Record Documents shall be prepared as follows:

1. Make mark-ups using a dark red pencil or pen so that the mark-ups can be clearly seen when photocopied or scanned. Mark-up corresponding details and sections in addition to the mark-ups in plan view.

2. Clearly mark changes on drawings adding notes as required. Changes made in narrative or reference to a Change Order or RFI without marking the actual drawing are not acceptable.

3. Date all entries, calling attention to the entry by a "cloud" drawn around the area or areas affected. If mark-ups are a result of an approved change such as a Change Order or RFI, write the reference to these documents in the clouded area.

4. For each piece of equipment incorporated into the Work, record the manufacturer, trade name, catalog number, model number, serial number, date of installation, supplier of each product and equipment item.

5. No paper shall be affixed to the back of the drawings. Do not include papers for explanations or comments since all mark-ups are to be complete and self-explanatory.

6. Permanent papers affixed to drawings, which modify the drawings, shall be securely stapled to the drawings and shall not obstruct information unless intentional. Tape or glue is acceptable only where stapling is not possible.

7. Drawings which are revised and issued as a result of a Change Order or RFI shall be inserted into the Interim Contractor Record documents and all marks on the old sheet shall be transferred to the new sheet.

8. If permanent additions to a drawing cannot fit on the drawing, the original drawing shall be labeled "Sheet 1 of 2," and the additions shall be placed on a new drawing sheet with an identical title block as the original drawing except that the title block shall be labeled "Sheet 2 of 2".

E. Contractor shall arrange for the City Representative to examine the up to date marked Interim Contractor Record Documents on a monthly basis at a time mutually acceptable to the Contractor and the City Representative.

F. Failure to maintain updated Interim Contractor Record Documents acceptable to the City Representative will result in retention of a portion of the monthly progress payment as specified in the General Conditions.

3.03 PROJECT COMPLETION

A. Updated Interim Contractor Record Documents showing all required information up through substantial completion shall be submitted to and accepted by the City Representative as a condition precedent to the contract being deemed as substantially complete.

B. Before Final Completion, the Contractor shall prepare and submit "Final Record Documents" to the City Representative as specified in Article 3.03.D of this Section. The Contractor shall submit "Final Record Documents" that are neat, clean, and accurately reflect work as constructed. Following review, if the Final Record Documents are acceptable to the City Representative, the Contractor shall certify each sheet of the Final Record Documents using the stamp provided by the City Representative stating "Certified that these Final Contractor Record Documents represent the facilities as constructed." The Contractor shall certify the stamp in the appropriate place and then the City Representative will certify the stamp.

C. In the event that the Final Record documents do not meet the approval of the City, or the condition of the drawings is deteriorated so that they are no longer suitable for use as record documents documentation, the Contractor may request replacement contract drawings upon which to post record documents documentation. Such drawings will be furnished to the Contractor by the City Representative. The Contractor shall reimburse the City for the actual cost of providing said replacement drawings.

D. The Contractor shall furnish:

1. Full size original set of "Final Record Documents" including certification by the Contractor and the City Representative.

2. Electronically scanned files of the certified "Final Record Documents" in color PDF format at 300 dpi minimum resolution with one PDF file per drawing on DVDs.

3. AutoCAD files in one or more DVDs. AutoCAD files will be provided by the City to the Contractor to provide revisions for the as-built conditions. An "AutoCAD File Use Agreement and Release" form shall be completed prior to release. AutoCAD Record Documents shall conform with the following format:

a. All changes made during construction shall be identified with a cloud and the letters 'RD' inscribed inside a triangle symbol.

b. Complete the revision title in the title block.

c. The final set of the drawings shall be marked "Final Record Documents" and shall become owner's record of the work.

4. A full size set of drawings printed from the AutoCAD files with the stamp "Certified that the Final Contractor Record Documents have been correctly transcribed into AutoCAD" on each sheet. Contractor shall sign the stamp and have Contractor's name printed below Contractor's signature.

E. The City will require 15 working days to perform certification of the Final Record Documents.

F. Furnish certificates and documentation of test results required in Technical Specifications.

3.04 PROJECT SPECIFIC REQUIREMENTS

A. ***[Manual insert field - Project Engineer input (if any) to cover those issues related to project record documents which are not already adequately addressed, either within this Baseline Section, or in General Conditions Section 00 72 00.]***

END OF SECTION