

File No. 150008

Committee Item No. 2

Board Item No. _____

COMMITTEE/BOARD OF SUPERVISORS

AGENDA PACKET CONTENTS LIST

Committee: Budget & Finance Committee

Date January 28, 2015

Board of Supervisors Meeting

Date _____

Cmte Board

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Completed by: Linda Wong Date January 23, 2015
Completed by: _____ Date _____

1 [Emergency Work - Repairing Boiler and Distribution Piping - Housing Authority Potrero
Terrace - 1099 Connecticut Street - Not to Exceed \$425,000]

2
3 **Resolution approving emergency public work by the Public Utilities Commission under**
4 **Administrative Code, Section 6.60, to replace the Power Enterprise space heating boiler**
5 **and distribution piping at Housing Authority Potrero Terrace located at 1099**
6 **Connecticut Street with an amount not to exceed \$425,000.**

7
8 WHEREAS, On June 6, 2014, the San Francisco Public Utilities Commission (SFPUC)
9 Power Enterprise requested a declaration of emergency for replacement and repairs to the
10 space heating boiler and distribution piping at residential housing located at 1099 Connecticut
11 Street (CAL 1-2 Potrero Terrace, Buildings E-4 and G-6) (Potrero Terrace); and

12 WHEREAS, The space heating boiler and distribution piping at Potrero Terrace was
13 leaking profusely at all times, resulting in the loss of the building's heating system in violation
14 of San Francisco Housing Code, Section 701(C), and requiring the San Francisco Housing
15 Authority to vacate ground level apartments; and

16 WHEREAS, If the space heating boiler and distribution piping was not replaced and
17 repaired and expeditiously returned to service, the lack of heat, thermal pollution from the
18 leakage, electrical hazards, and deterioration of facilities would endanger the public's health
19 and welfare, while also wasting vast amounts of energy and water during a period of drought;
20 and

21 WHEREAS, The SFPUC is the electric power service provider to Potrero Terrace; and

22 WHEREAS, The SFPUC and the Housing Authority have executed a Letter of
23 Agreement setting forth their intentions regarding this project; and

24 WHEREAS, San Francisco Administrative Code, Chapter 6, Article IV, Section 6.60,
25 authorizes department heads responsible for public work to award an emergency contract,

1 exempt from the competitive bidding process, in the event of an actual emergency which is
2 defined to include, " ... The breakdown or imminent breakdown of any plant, equipment,
3 structure, street or public work necessitating immediate emergency repair or reconditioning to
4 safeguard the lives or property of the citizens, or the property of the City and County, or to
5 maintain the public health and welfare ..."; and

6 WHEREAS, On June 6, 2014, the SFPUC General Manager declared an emergency,
7 approved by the President of the San Francisco Public Utilities Commission, to replace and
8 repair the space heating boiler and distribution piping at Potrero Terrace and thereby protect
9 public health and safety; and

10 WHEREAS, The original estimate for this work referenced in the Emergency
11 Declaration was \$850,000, however subsequent review of the project scope resulted in a
12 more accurate assessment of costs not to exceed \$425,000; and

13 WHEREAS, Administrative Code, Section 6.60(D), requires that the General Manager
14 immediately notify the Controller, and seek Board of Supervisors approval of emergency
15 public works with an estimated cost in excess of \$250,000; and

16 WHEREAS, The SFPUC General Manager estimates that the emergency work to
17 replace and repair the space heating boiler and distribution piping at residential housing
18 located at Potrero Terrace will cost approximately \$425,000; and

19 WHEREAS, The SFPUC has awarded Contract No. PW-005(E) to Cornely Company in
20 the amount of \$398,800 to address the majority of this emergency work; with the total value of
21 the work, including additional contingencies and expenses, not to exceed \$425,000; and

22 WHEREAS, The Controller has certified that funds are available for this emergency
23 work and contract; now, therefore, be it

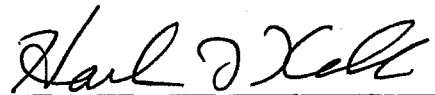
1 RESOLVED, That the Board of Supervisors approves the emergency work under
2 Administrative Code, Section 6.60, to replace and repair the space heating boiler and
3 distribution piping at Potrero Terrace with an amount not to exceed \$425,000; and, be it

4 FURTHER RESOLVED, That actions taken to date by the San Francisco Public
5 Utilities Commission to address such emergency work and resolve the emergency condition
6 are hereby ratified; and, be it

7 FURTHER RESOLVED, That within thirty (30) days of the emergency contract being
8 fully executed by all parties the San Francisco Public Utilities Commission shall provide the
9 final emergency contract to the Clerk of the Board for inclusion into the official file.

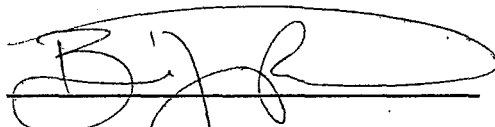
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RECOMMENDED:



Harlan L. Kelly, Jr.
General Manager

FUNDS AVAILABLE:


Ben Rosenfield, Controller

Item 2 File 15-0008	Department: Public Utilities Commission (PUC)
EXECUTIVE SUMMARY	
Legislative Objectives	
<p>The proposed resolution would approve an emergency contract awarded by the San Francisco Public Utilities Commission (SFPUC) to Cornely Company in accordance to Administrative Code 6.60 to replace the space heating boiler and distribution piping at the San Francisco Housing Authority (SFHA) development, Potrero Terrace, for an amount not-to-exceed \$425,000.</p>	
Key Points	
<ul style="list-style-type: none"> • SFPUC provides electricity to San Francisco Housing Authority (SFHA) properties, and SFHA is responsible for maintenance and upkeep on all related equipment. SFHA staff identified water leakage in the Potrero Terrace space heating boiler and distribution piping on March 16, 2014. SFPUC and SFHA met in April to discuss the Potrero Terrace space heating boiler and distribution piping systems leakage and identify funding sources to pay for the repair project. SFPUC staff performed a site visit on May 29, 2014 and determined that the leakage in the space heating boiler and distribution piping systems was a serious health and safety issue. The SFUPC declared an emergency on June 6, 2014. • SFPUC entered into a contract with Cornely Company (Cornely) on September 3, 2014 to provide the emergency repair services for an amount not-to-exceed \$425,000 including contingencies and expenses. SFPUC selected Cornely, a Local Business Enterprise (LBE) contractor, to provide the emergency repair work for replacement of the heater boiler and piping system based on their prior work for SFHA and the San Francisco Unified School District. • According to SFPUC, the three month delay between the emergency declaration in June 2014 and entering into the contract with Cornely in September 2014 was due to modifications to the draft letter of agreement between SFPUC and SFHA requested by legal counsel of both SFHA and SFPUC. The work is expected to be completed by January 30, 2015. 	
Fiscal Impact	
<ul style="list-style-type: none"> • Cornely originally bid the emergency repair work at \$398,800. The contract was written for an amount not-to-exceed \$425,000, including contingencies and expenses. To date, \$249,800 of the work has been completed, and approximately \$154,184 remains. • San Francisco Electrical Reliability Payment/Trans Bay Cable Agreement is the funding source for this project. 	
Recommendation	
<p>Approve the proposed resolution.</p>	

MANDATE STATEMENT / BACKGROUND**Mandate Statement**

Administrative Code Section 6.60(D) states that contracts entered into for emergency work in the amount of \$250,000 or more are subject to Board of Supervisors approval. Section 6.60(D) also states that if the emergency work does not permit the required approval to be obtained before work is commenced or the contract entered into, department heads may enter into a contract, notify the Controller and Board of Supervisors, and seek approval as soon as conditions permit.

Background

The San Francisco Public Utilities Commission (SFPUC) provides electricity to San Francisco Housing Authority (SFHA) properties, and SFHA is responsible for maintenance and upkeep on all related equipment. On June 6, 2014, SFPUC declared an emergency for replacement of the space heating boiler and its distribution piping systems at SFHA's housing development, Potrero Terrace, Buildings E-4 and G-6, located at 1099 Connecticut Street in the Potrero Hill neighborhood.

The June 6, 2014 memorandum from the SFPUC General Manager to the SFPUC President stated that the space heating boiler and distribution piping leak hot water profusely at all times, resulting in a loss of the building's heating system. According to Ms. Lori Mitchell, SFPUC Project Manager, SFHA staff identified the water leakage in March 16, 2014. SFPUC and SFHA met in April to discuss the Potrero Terrace space heating boiler and distribution piping systems leakage and identify funding sources to pay for the repair project. SFPUC staff performed a site visit on May 29, 2014 and determined that the leakage in the space heating boiler and distribution piping systems was a serious health and safety issue, and began working with the SFPUC Contracts Division on the fastest way to proceed. SFPUC staff determined that declaring an emergency was the fastest way to proceed.¹

Because the broken space heating boiler and distribution piping posed a threat to the public's health and welfare due to a lack of heat, thermal pollution from the leakage, and electrical hazards, SFHA vacated the ground level apartments, and the second level apartments in each of the two buildings. Such apartments remained without heat until the new boiler system was recently installed.²

¹ According to Ms. Mitchell, SFPUC considered using the SFPUC's Job Order Contract program, which allows for expedited contracting for projects of less than \$400,000. Under the Job Order Contract program, contractors submit proposals not for a specific project, but for a general contract that allows them to perform repair, maintenance and minor construction work as needed. According to Ms. Mitchell, because the estimate of proposed emergency work at Potrero Terrace exceeded \$400,000, the work was not eligible for the Job Order Contract program.

² SF Housing Code Sec 701 (c)(1) states: "Apartment houses and hotels shall comply with the requirements set forth in Section 701 above except that heat capable of maintaining a room temperature of 68 degrees Fahrenheit (20 degrees Centigrade) at a point midway between the heating unit and the furthest wall and which point is three feet above the floor, shall be made available to each occupied habitable room for 13 hours between the hours of 5:00 a.m. and 11:00 a.m. and 3:00 p.m. and 10:00 p.m."

Although the emergency was declared on June 6, 2014, the Letter of Agreement (LOA) between SFHA and SFPUC to administer the necessary repairs was not signed until September 2, 2014. According to SFPUC, the three month delay between the emergency declaration and finalization of the LOA was due to modifications to the draft LOA requested by legal counsel of both SFHA and SFPUC, as well as the cancellation of a Housing Authority Commission Development and Finance Committee meeting that was required to make a recommendation to the full Housing Authority Commission, further delaying the process. According to Mr. Carlos Jacobo, SFPUC Budget Manager, SFPUC was not able to undergo a competitive bid process to select a contractor during the three-month period from June 6, 2014 to September 2, 2014 because the competitive bid process takes approximately six months.

Emergency Repair Contract Award

SFPUC selected Cornely Company (Cornely), a Local Business Enterprise (LBE) contractor, to provide the emergency repair work for replacement of the heater boiler and piping system. According to Mr. Jacobo, SFPUC awarded the emergency contract to Cornely based on their reputation. For example, SFHA had used Cornely in the past to perform boiler work at the Potrero Terrace Housing Development, and the San Francisco Unified School District had used Cornely in the past on numerous boiler replacement projects throughout the City. SFPUC issued the Notice to Proceed for the emergency repair on September 2, 2014. According to the Notice to Proceed, all work on this project should be completed on or before January 30, 2015. SFPUC expects this work to be fully complete by January 23, 2015.

DETAILS OF PROPOSED LEGISLATION

The proposed resolution would approve emergency public work by SFPUC under Administrative Code, Section 6.60 to replace the Potrero Terrace heating system including the space heating boiler and distribution piping in an amount not-to-exceed \$425,000.

SFPUC entered into a contract with Cornely on September 3, 2014, for an amount not to exceed \$425,000 including contingencies and expenses. In accordance with Administrative Code Section 6.60, this emergency contract with Cornely was not subject to a competitive bid procedure.

SFPUC had cost estimates for work on two similar repair projects which helped inform their determination of a fair price outside of the competitive bid process. In 2011, SFHA hired an engineering consultant to survey the Potrero Terrace Boiler Room and provide an estimate for future repair work comparable to work performed under the subject contract. The consultant estimated the work would cost \$512,688. Additionally, a similar project was recently completed at the Potrero Terrace Housing Development by another contractor for \$450,000. Cornely's bid for the emergency repair work was \$398,800, and based on the previous estimates and repair work discussed above, the SFPUC determined Cornely's price of not-to-exceed \$425,000 to be competitive, and selected the company to perform the emergency repair work.

FISCAL IMPACT

Cornely submitted a bid for the emergency repair work at \$398,800. The contract with Cornely states the repairs will be completed for an amount not to exceed \$425,000, including contingencies and expenses. The current budget for the emergency repair work includes three change order items not included in the original bid. According to Mr. Jacobo, the contract may require additional change orders; however, the total contract amount will not exceed \$425,000. The total emergency repair work including the three change order items is \$403,984, as shown in Table 1 below.

Table 1: Potrero Terrace Emergency Repair Work Budget

Equipment	Price	Work Completed to Date
Boiler Room		
Equipment Piping	\$85,050	
Insulation	\$3,000	
Demolition	\$3,500	
Building G-6		
Waste Stacks	\$10,480	\$10,480
Abatement and Demolition	\$7,500	\$7,500
Piping domestic system	\$30,300	
Piping on hydronic system	\$47,320	\$47,320
Insulation on domestic system	\$7,260	
Insulation on hydronic system	\$8,022	
Building E-3		
Demolition	\$3,000	\$3,000
Piping on domestic system	\$30,600	\$30,600
Piping on hydronic system	\$43,200	\$43,200
Insulation on domestic system	\$3,740	
Insulation on hydronic system	\$5,678	
Underground Piping		
Fence and Port-A-Potty	\$650	
Trenching	\$18,900	\$18,900
Piping	\$53,000	\$53,000
Testing of new lines	\$1,500	
Insulation	\$16,800	\$16,800
Backfilling	\$6,000	\$6,000
Bond	\$13,000	\$13,000
Original Bid Subtotal	\$398,500	\$249,800
Change Order Items		
2013 Title 24 insulation	\$4,450	
Rotten waste and overflow	\$363	
Rotten hot water riser	\$671	
Change Order Items Subtotal	\$5,484	
Total	\$403,984	\$249,800

Source: Cornely Company

To date, Cornely has completed \$249,800 of emergency repair work, and \$154,184 worth of work remains to be done. According to Mr. Jacobo, \$250,000 has already been encumbered, and the remaining amount of \$153,984 is subject to approval by the Board of Supervisors before the remaining work can be completed and the balance can be paid to Cornely.

Funding for the emergency work comes from the San Francisco Electrical Reliability Payment/Trans Bay Cable Agreement. A condition of the 53-mile Trans Bay high voltage direct current transmission cable's operation license requires Trans Bay Cable to make ten annual payments of \$2,000,000 to SFPUC, referred to as the "San Francisco Electrical Reliability Payment." Resolution 414-07 (File No. 07-0314) directs the SFPUC to use these payments for "renewable energy, conservation, and environmental health programs which benefit low-income, at-risk, and environmentally disadvantaged communities." As this emergency repair work takes place in a low-income public housing development, it meets the requirements set forth in the Resolution.

Ongoing Maintenance Costs

After completion of the emergency repair work, SFHA will be responsible for operation and ongoing maintenance of the equipment. Neither SFPUC nor Cornely will be responsible for maintenance of the new equipment upon completion of the emergency repair work.

RECOMMENDATION

Approve the proposed resolution.



San Francisco Water Power Sewer

Services of the San Francisco Public Utilities Commission

525 Golden Gate Avenue, 13th Floor
San Francisco, CA 94102
T 415.554.3155
F 415.554.3161
TTY 415.554.3488

File 150008!

TO: Angela Calvillo, Clerk of the Board
FROM: Erin Hagan, Policy and Government Affairs Manager
DATE: December 29, 2014
SUBJECT: Emergency Declaration – Repairing Boiler and Distribution Piping at San Francisco Housing Authority Potrero Terrace – Not to Exceed \$425,000

Attached please find an original and one copy of a proposed resolution approving emergency public work by the San Francisco Public Utilities Commission under San Francisco Administrative Code Section 6.60 to replace the Power Enterprise space heating boiler and distribution piping at San Francisco Housing Authority Potrero Terrace located at 1099 Connecticut Street with an amount not to exceed \$425,000.

The following is a list of accompanying documents (2 sets):

1. Board of Supervisors Resolution
2. The signed SFPUC Emergency Declaration
3. Letter of Agreement between the SFPUC Power Enterprise and the San Francisco Housing Authority
4. Ethics Form-126
5. Contract with Cornely Company

RECEIVED
BOARD OF SUPERVISORS
SAN FRANCISCO
2014 DEC 29 PM 3:07

Please contact Erin Hagan at 554-0706 if you need any additional information on these items.

- Edwin M. Lee**
Mayor
- Ann Moller Caen**
President
- Francesca Vietor**
Vice President
- Vince Courtney**
Commissioner
- Anson Moran**
Commissioner
- Harlan L. Kelly, Jr.**
General Manager





San Francisco
Water Sewer

Services of the San Francisco Public Utilities Commission

525 Golden Gate Avenue, 13th Floor
San Francisco, CA 94102
T 415.554.0725
F 415.554.3280
TTY 415.554.3488

INTER-OFFICE MEMORANDUM

DATE: June 6, 2014

TO: Honorable Vince Courtney, President
San Francisco Public Utilities Commission

THROUGH: Harlan Kelly *Harlan Kelly*
SFPUC General Manager

FROM: Barbara E. *Barbara E.*
SFPUC Assistant General Manager, Power

SUBJECT: Declaration of Emergency –
San Francisco Housing Authority Potrero Terrace
Boiler and Distribution Piping Replacement Project

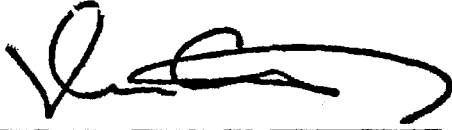
Today, the SFPUC Power Enterprise asked for a declaration of emergency for repairs required at residential housing located at 1099 Connecticut Street (CAL 1-2 Potrero Terrace, Buildings E-4 and G-6). The space heating boiler and distribution piping at the property leak hot water profusely at all times. The failure of the boiler has resulted in the loss of the building's heating system and required SFHA to vacate ground level apartments. Second story apartments are without heat. The failure of the heating system results also in a violation of San Francisco Housing Code Section 701(C), which requires apartment buildings to have a minimum of 13 hours of heat a day to maintain a minimum temperature of 68 F. In addition to the lack of space heating, the boiler leakage has caused thermal pollution, electrical hazards, and deterioration of sewer facilities. The boiler leakage has wasted huge amounts of energy and water during a period of drought.

This request for emergency declaration is for the SFPUC Power Enterprise on behalf of the San Francisco Housing Authority. The amount budgeted for this work is \$850,000.00. Because the total cost of replacement of the boiler and repairs to facilities exceeds \$250,000, we are required to notify the Board of Supervisors of this emergency.

Power Enterprise intends to fund this project from revenues collected pursuant to an agreement with TransBay Cable, which must be expended, in part, on energy efficiency improvements and projects that reduce greenhouse gas emissions and benefit low income and disadvantaged communities in San Francisco. This project will result in significant energy savings and reductions in greenhouse gas emissions, as well as substantial water savings, and improve the health and safety of tenants, employees and members of the public.

I am therefore declaring the existence of an emergency. I trust that this meets with your concurrence and approval.

CO

A handwritten signature in black ink, appearing to read 'Vince Courtney', written over a horizontal line.

Vince Courtney, President
San Francisco Public Utilities Commission

cc: SFPUC Commission Members
Todd Rydstrom, AGM Business Services
Barbara Hale, AGM Power Enterprise



**LETTER OF AGREEMENT BETWEEN
 SAN FRANCISCO PUBLIC UTILITIES COMMISSION POWER ENTERPRISE AND
 THE SAN FRANCISCO HOUSING AUTHORITY**

This LETTER OF AGREEMENT (LOA) between the SAN FRANCISCO PUBLIC UTILITIES COMMISSION POWER ENTERPRISE (SFPUC-Power) and the SAN FRANCISCO HOUSING AUTHORITY(SFHA) formalizes the responsibilities, costs, and scope of work associated with the implementation of replacing the heating systems servicing two buildings located in Potrero Terrace: Building E-4: 900-914 Connecticut Street & Building G-6: 918-946 Connecticut Street.

RESPONSIBILITIES OF PARTIES

Under this agreement, SFPUC-Power will be responsible for project management, construction, construction management, contract procurement, and contract management to implement the Scope of Work under this agreement. SFPUC-Power and the SFHA agree that the SFPUC-Power's procurement and performance of the work under this LOA shall be administered under San Francisco Administrative Code Chapter 6.

SFPUC-Power will select a contractor who will be required to make a good faith effort in complying with SFHA's Resident Hiring Goals in compliance with Section 3 of the Housing and Urban Development Act of 1968, 24 CFR 135.34 Resolution NO. 4967.

The SFHA will be named additional insured on the contractor's Certificate of Liability Insurance document.

The SFHA will be responsible for facilitating correspondence between their consultant, ACIES Engineering, providing 120 V electrical power, potable water, site access, and a designated on-site project construction coordinator. Attachment A further defines the responsibilities of SFPUC-Power and the SFHA as well as other parties, including SFHA Engineering Consultant ACIES Engineering and the SFPUC-Infrastructure Construction Management Bureau. ACIES Engineering will be the Engineer on Record.

SFPUC-Power will fund the project and provide the scope of services described below:

SCOPE OF WORK AND ASSOCIATED COST ESTIMATE

The Scope of Work will include replacement of the space heating boilers, water heater, and the distribution piping of these two systems serving Buildings E-4 and G-6 defined in the engineering drawings designed by the SFHA's engineering consultant, ACIES Engineering, titled "CAL 1-2 Potrero Terrace 1095 Connecticut Street San Francisco, CA 94107 Building Energy Improvements."

The project budget components being funded by SFPUC-Power include project management by SFPUC-Power Energy Efficiency Services, construction and permit costs by the contractor, construction management by the SFPUC-Infrastructure Construction Management Bureau, and contract management by the SFPUC-Infrastructure Contract Administration Bureau.

Edwin M. Lee
 Mayor

Vince Courtney
 President

Ann Moller Caen
 Vice President

Francesca Vietor
 Commissioner

Anson Moran
 Commissioner

Art Torres
 Commissioner

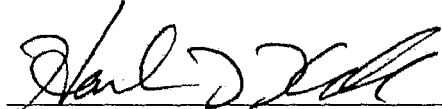
Harlan L. Kelly, Jr.
 General Manager



The total estimated project budget is not to exceed \$850,000.00. In the event the project costs exceed the project budget, SFPUC-Power shall be responsible for determining whether to fund and proceed with the full scope of work.

This LOA shall become effective on the date of execution by both parties. Termination of this LOA shall be 18 months from date of execution unless modified by the Parties.

ACCEPTED



SFPUC - Harlan L. Kelly, Jr. General Manager

9/2/14

Date

SFHA - Barbara Smith, Acting Executive Director

Date

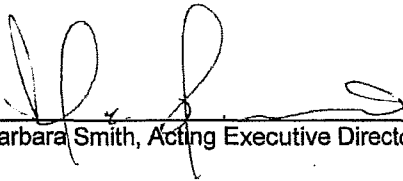
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This LOA shall become effective on the date of execution by both parties. Termination of this LOA shall be 18 months from date of execution unless modified by the Parties.

ACCEPTED

SFPUC - Harlan L. Kelly, Jr., General Manager

Date



SFHA - Barbara Smith, Acting Executive Director

8/29/14

Date

for Barbara Smith

Attachment A: Responsibility Matrix

**Project: San Francisco Housing Authority
Building Energy Improvement Project
Potrero Terrace Buildings E-4 and G-6**

Task	SFPUC Power	Department Site (SFHA)	SFHA Consultant ACIES Engineering	PUC CMB	Contractor
Design					
Develop Design/Specifications	R	R/A	P	R	
Develop Scope of Work	R	R/A	P	R	
Develop Design Drawings	R	R/A	P	R	
Construction					
Conducts Job Walk	P	S			P
Selects Contractor	P	R		R	
Issues Contract	P			R	R
Secures Construction Permit	S/R	S		S/R	P
Prepares Construction Schedule	R	R		R	P
Performs Construction	R	R	R	R	P
Document Management	P	R		P/S	
Submittals and RFIs	S/R	R	S/R	S/R	P
Approves Contractor Invoices	P			S/R	
Inspection of Work	S	R	R	P	
Construction Progress Reports/Log	R		R	R	P
Initiate Change Orders	P/R	R	R	R	P/R
Prepare Meeting Agendas/Minutes	P	R	S	S	S
Attend Project Meetings	P	P	S	P	P
Develop Punch Lists	S	S/R	S/R	P	R
Perform Punch List Items	R	R	R	R	P
Test & Final Inspection	R	R	R	R	P
O&M Training	S				P
Acceptance	P	R	R	S/R	
As-Built Drawings	S/R	R	R	R	P
<p>P = Primary; S = Support; R = Review; A = Approval</p> <p>SFPUC = San Francisco Public Utilities Commission; SFPUC Power = SFPUC Power Enterprise; PUC CMB = SFPUC Construction Management Bureau; Department Site = SFHA: San Francisco Housing Authority; SFHA Consultant = ACIES Engineering; Contractor = To Be Determined</p>					



San Francisco
**Water
Power
Sewer**

Services of the San Francisco Public Utilities Commission

**CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION
POWER ENTERPRISE**



**HARLAN L. KELLY, JR.
GENERAL MANAGER**

**EMILIO CRUZ
ASSISTANT GENERAL MANAGER
INFRASTRUCTURE**

**SAN FRANCISCO HOUSING AUTHORITY POTRERO
TERRACE EMERGENCY BOILER AND DISTRIBUTION
PIPING REPLACEMENT**

**CONTRACT NO. PW-005(E)
JULY 2014**

SPECIFICATIONS

COPY NO. _____

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

Pauline Lam
c/o SFPUC Contract Administration Bureau
525 Golden Gate Avenue, 8th Floor
San Francisco, CA 94102
Direct: 415-551-4603

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

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

1.04 WEBSITE ADDRESSES

- A. ONLINE SECTION 00 21 14
<http://sfwater.org/QBD>
- B. SFPUC CONTRACTS & BIDS
<http://sfwater.org/contracts>
- C. SFPUC BIDDER PRE-QUALIFICATION
<http://sfwater.org/pre-qualify> or <http://sfwater.org/prequalify>
- D. S.F. CONTRACT MONITORING DIVISION (CMD)
<http://www.sfgov.org/cmd>
S.F. OFFICE OF LABOR STANDARDS ENFORCEMENT – MINIMUM
COMPENSATION ORDINANCE
<http://sfgsa.org/index.aspx?page=391>
- E. S.F. HEALTH CARE ACCOUNTABILITY ORDINANCE
<http://sfgsa.org/index.aspx?page=407>

- F. S.F. BUSINESS REGISTRATION CERTIFICATE
<http://sfgov.org/tax>
- G. OFFICE OF ECONOMIC AND WORKFORCE DEVELOPMENT (LOCAL
HIRING)
www.oewd.org

END OF SECTION

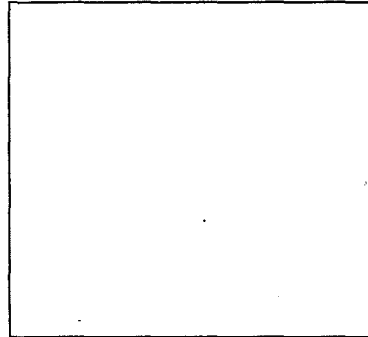
SEALS PAGE

The various portions of the specifications and other contract documents for project "San Francisco Housing Authority Potrero Terrace Emergency Boiler and Distribution Piping Replacement, Contract No. PW-005(E)", have been prepared under the direction of the following design professionals, licensed in the State of California.

MECHANICAL ENGINEER

Name: Srdjan G. Rebraca, P.E.

Company: ACIES Engineering
111 W. Evelyn Ave., Suite 301
Sunnyvale, CA 94086
T: (408) 522-5255
F: (408) 522-5260



END OF SECTION

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00 45 71	S.F. ADMINISTRATIVE CODE CHAPTERS 12B & 12C DECLARATION: NONDISCRIMINATION IN CONTRACTS AND BENEFITS
00 45 72	CHAPTER 12B EQUAL BENEFITS DOCUMENTATION GUIDE

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01 29 73	SCHEDULE OF VALUES
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LIST OF DRAWING SHEETS

DRAWINGS

The following Drawings are incorporated as Contract Documents:

ACIES Engineering: CAL 1-2, POTRERO TERRACE 1095 CONNECTICUT ST SAN
FRANCISCO, CA 94107
BUILDING ENERGY IMPROVEMENT

T-1: TITLE SHEET

P-1: LEGEND, GENERAL NOTES, SCHEDULES & SPECIFICATIONS

P-2: BUILDING G-6 – PLUMBING PLANS, - MECHANICAL ROOMS

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END OF SECTION



CITY AND COUNTY OF SAN FRANCISCO CONTRACT MONITORING DIVISION

S.F. ADMINISTRATIVE CODE CHAPTERS 12B & 12C DECLARATION: NONDISCRIMINATION IN CONTRACTS AND BENEFITS (CMD-12B-101)

► Section 1. Vendor Information

DATE & TIME RECEIVED BY CMD (FOR CMD USE ONLY)

Name of Company: _____

Name of Company Contact Person: _____

Phone: _____ Ext.: _____ Fax: _____

E-mail Address: _____

Vendor Number (if known): _____

Federal ID or Social Security Number: _____

Approximate Number of Employees in the U.S.: _____

Are any of your employees covered by a collective bargaining agreement or union trust fund? Yes No

Union name(s): _____

► Section 2. Compliance Questions

Question 1. Nondiscrimination – Protected Classes

A. Does your company agree it will not discriminate against its employees, applicants for employment, employees of the City, or members of the public on the basis of the fact or perception of a person's membership in the categories listed below? **Please note:** a "YES" answer is required for compliance. Please answer yes or no to each category.

- | | | | | | |
|-------------------|------------------------------|-----------------------------|--|------------------------------|-----------------------------|
| • Race | <input type="checkbox"/> Yes | <input type="checkbox"/> No | • Sex | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Color | <input type="checkbox"/> Yes | <input type="checkbox"/> No | • Sexual orientation | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Creed | <input type="checkbox"/> Yes | <input type="checkbox"/> No | • Gender identity (transgender status) | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Religion | <input type="checkbox"/> Yes | <input type="checkbox"/> No | • Domestic partner status | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • National origin | <input type="checkbox"/> Yes | <input type="checkbox"/> No | • Marital status | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Ancestry | <input type="checkbox"/> Yes | <input type="checkbox"/> No | • Disability | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Age | <input type="checkbox"/> Yes | <input type="checkbox"/> No | • AIDS/HIV status | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| • Height | <input type="checkbox"/> Yes | <input type="checkbox"/> No | • Weight | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

B. Does your company agree to insert a similar nondiscrimination provision in any subcontract you enter into for the performance of a substantial portion of the contract you have with the City? **Please note:** you must answer this question even if you do not intend to enter into any subcontracts.

Yes No

Question 2. Nondiscrimination – Equal Benefits for Employees with Spouses and Employees with Domestic Partners

A. Does your company provide or offer access to any benefits to employees with spouses or to spouses of employees?

Yes No

B. Does your company provide or offer access to any benefits to employees with (same or opposite sex) domestic partners* or to domestic partners of employees?

Yes No

Questions 2A and 2B should be answered YES even if your employees pay some or all of the cost of spousal or domestic partner benefits.

*The term "Domestic Partner" includes both same-sex and opposite-sex couples who have registered with any state or local government domestic partnership registry. See S.F. Admin. Code Ch. 12B.1(c).

If you answered "NO" to both Questions 2A and 2B, go to Section 4, complete and sign the form, filling in all items requested.

If you answered "YES" to either or both Questions 2A and 2B, please continue to Question 2C.

(OVER)

Question 2. (continued)

C. Please check all benefits that apply to your answers above and list in the "other" section any additional benefits not already specified. Note: some benefits are provided to employees because they have a spouse or domestic partner, such as bereavement leave; other benefits are provided directly to the spouse or domestic partner, such as medical insurance.

BENEFIT	Yes for Employees with Spouses	Yes for Employees with Domestic Partners	No, this Benefit is Not Offered	Documentation of this Benefit is Submitted with this Form
• Health Insurance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Dental Insurance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Vision Insurance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Retirement (Pension, 401(k), etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Bereavement Leave	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Family Leave	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Parental Leave	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Employee Assistance Program	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Relocation & Travel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Company Discount, Facilities & Events	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Credit Union	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Child Care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Dependent Life Insurance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Note: If you can't offer a benefit in a nondiscriminatory manner *because of reasons outside your control*, (e.g., there are no insurance providers in your area willing to offer domestic partner coverage) you may be eligible for Reasonable Measures compliance. To comply on this basis, you must agree to pay a cash equivalent, submit a completed Reasonable Measures Application Form (CMD-12B-102) with all necessary attachments, and have your application approved by the Contract Monitoring Division. For more information, see Rules of Procedure section II B or contact the CMD.

➤ **Section 3. Required Documentation**

YOU MUST SUBMIT SUPPORTING DOCUMENTATION

to verify each benefit marked in Question 2C. Without proper documentation, your company cannot be certified as complying with Chapters 12B & 12C. For example, to document medical insurance submit a letter from your insurance provider or a copy of the eligibility section of your plan document; to document leave programs, submit a copy of your company's employee handbook. If documentation of a particular benefit does not exist, attach an explanation. For more information see the Equal Benefits Documentation Guide at <http://sfqsa.org/modules/showdocument.aspx?documentid=9560> or contact the CMD.

Have you submitted supporting documentation for each benefit offered? Yes No

➤ **Section 4. Executing the Document**

I declare 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 _____, in the year _____, at _____, _____
(City) (State)

Signature

Mailing Address

Name of Signatory (please print)

City, State, Zip Code

Title

➔ **Submit this form and supporting documentation to:** Contract Monitoring Division, 30 Van Ness Ave., Suite 200, San Francisco, CA 94102-6020, or to CMD.EqualBenefits@sfgov.org or to the City department that sent it to you if the department so requests.

✓ **Resource Materials** and additional copies of this form may be found at: www.sfgov.org/CMD.

☎ **For assistance** please contact the Contract Monitoring Division at 415-581-2310.



EQUAL BENEFITS DOCUMENTATION GUIDE

Benefit Type	Guidelines	Standard Documentation
Health Dental Vision Dependent Life Long-term Disability Long-term Care Accidental Death & Dismemberment Business Travel Accident Personal Travel Accident	<p>In a confirmation from an insurance carrier, "Domestic Partners" must be defined as: "same-sex and opposite-sex couples who have registered with any state or local government domestic partnership registry."</p> <p>In addition, it must be confirmed that there are no requirements for proof of relationship (such as an affidavit) or waiting periods that are not also applied to married couples.</p> <p>For insurance policies where continuation coverage is available to spouses and step-children, the insurer must confirm that COBRA-like continuation coverage is available to domestic partners and their children.</p>	<p>Acceptable: the cover page, eligibility section, and other relevant sections (such as the COBRA section) of the Basic Plan Document, or you may submit a letter or email message from the insurance carrier (contact us for an example).</p> <p>Unacceptable: letters from brokers, enrollment forms, invoices, Summary Plan Descriptions.</p>
Retirement (Pension, 401(k), etc.)	Confirmation is needed that the distribution options are the same for spouse and non-spouse beneficiaries. (We already know that anyone may be designated as a beneficiary.)	A copy of the cover page and the distribution section of the Summary Plan Description or Basic Plan Document of your 401(k) or pension or savings plan(s). If you have a prototype plan, please include the Adoption Agreement.
Bereavement Leave Family Leave (including FMLA) Parental Leave Relocation and Travel Discounts, Facilities & Events	<p>Where the term "spouse" is used, the term "domestic partner" must be included.</p> <p>The definition of "immediate family" must be defined in the bereavement policy and if it includes in-laws, the equivalent members of a domestic partner's family must be explicitly included. <i>An example of a compliant definition is: the employee's spouse or domestic partner; a parent, child, or sibling of the employee, spouse or domestic partner; and the spouse or domestic partner of the employee's parents, children, or siblings.</i></p>	<p>A copy of your Employee handbook policies.</p> <p>When the term "Domestic Partners" is defined in an employee handbook, the following definition must be used: "same-sex and opposite-sex couples who have registered with any state or local government domestic partnership registry." Domestic partners must not be required to prove their relationship (such as with an affidavit) or subject to waiting periods unless a company provides proof that spouses are subject to the same requirements.</p>
Employee Assistance Program Credit Union	References to spouses must include references to domestic partners or household members.	A brochure or letter from the provider or policy from the employee handbook.
Child care	References to spouses must include references domestic partners.	A brochure or letter from the provider.
Union	Separate documentation must be submitted for union benefits.	Unions that recognize domestic partners have usually prepared a 1-page statement that is available upon request. If a union doesn't recognize domestic partners, call 415-581-2310 for assistance.
Other	If your firm offers other benefits, please specify what they are on the 12B Declaration and provide documentation.	Varies; call 415-581-2310 for assistance.

SECTION 00 52 00
AGREEMENT FORM

THIS AGREEMENT is made for the convenience of the parties this 4th day of September, 2014 by and between Cornely Company, located at 1127 Mission Street, San Francisco, CA 94103 ("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, on June 6, 2014, the President of the San Francisco Public Utilities Commission issued a Declaration of Emergency for boiler and distribution piping repairs required at San Francisco Housing Authority ("SFHA") residential housing located Potrero Terrace ("Portrero Terrace"); and,

WHEREAS, on August 28, 2014, the SFHA Board of Commissioners authorized the SFHA Acting Executive Director to enter into a Letter of Agreement with the SFPUC, in which SFPUC agrees to administer the necessary repairs at Potrero Terrace ("Letter of Agreement"); and,

WHEREAS, on August 29, 2014, the SFHA Acting Executive Director and the SFPUC General Manger entered into the Letter of Agreement; and,

WHEREAS, the amount certified by the Controller for this Contract is currently limited to a maximum of \$250,000. In no event shall payments to CONTRACTOR exceed \$250,000 unless and until the Board of Supervisors approves the Declaration of Emergency and the Controller certifies the availability of the remaining funds.

**San Francisco Housing Authority Potrero Terrace Emergency Boiler and Distribution Piping
Replacement
Contract No. PW-005(E) (Not to Exceed \$500,000)**

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 150 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 60 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/deductive Alternate Bid Items.

Total awarded contract amount: Three hundred ninety eight thousand eight hundred dollars & no/100 (\$398,800).

For all Work, CONTRACTOR guarantees that the maximum cost payable by the City, based on direct costs for actual quantities of labor, materials, equipment and Contractor's fees for indirect costs as set forth in Paragraph 6.06 of the General Conditions (Section 00 72 00), all subject to increases or decreases for changes in the Work, shall not exceed Five hundred thousand dollars & no/100 (\$500,000).

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.

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 San Francisco Administrative Code, including section 6.22(E). In addition, this Project is subject to the requirements of the San Francisco Local Hiring Policy for Construction, San Francisco Administrative Code section 6.22(J). 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 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: Cornely Company
(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 – TERMINATION AND SURVIVAL

6.01 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).

6.02 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.

[Emergency Contracts Only]
Executed on _____, 201_____

Cornely Company
Name of Firm or Corporation

Telephone Number

(signed) Bidder or Authorized Representative

S.F. Business Tax Registration Certificate Number

Position in Firm or Corporation

Address of Firm or Corporation Zip Code

Contractor's California License No.

License Expiration Date

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 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.

Principal
By _____

Title

CITY
Awarded:

Approved as to form:
DENNIS J. HERRERA
City Attorney

By: _____
General Manager, San Francisco Public Utilities
Commission

By: _____
Deputy City Attorney

END OF SECTION



San Francisco
Water *sewer*
Services of the San Francisco Public Utilities Commission

525 Golden Gate Avenue, 13th Floor
San Francisco, CA 94102
T 415.554.0725
F 415.554.3280
TTY 415.554.3488

INTER-OFFICE MEMORANDUM

DATE: June 6, 2014

TO: Honorable Vince Courtney, President
San Francisco Public Utilities Commission

THROUGH: Harlan Kelly *Harlan Kelly*
SFPUC General Manager

FROM: Barbara E. *Barbara E.*
SFPUC Assistant General Manager, Power

SUBJECT: Declaration of Emergency –
San Francisco Housing Authority Potrero Terrace
Boiler and Distribution Piping Replacement Project

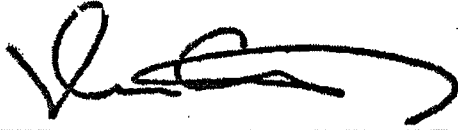
Today, the SFPUC Power Enterprise asked for a declaration of emergency for repairs required at residential housing located at 1099 Connecticut Street (CAL 1-2 Potrero Terrace, Buildings E-4 and G-6). The space heating boiler and distribution piping at the property leak hot water profusely at all times. The failure of the boiler has resulted in the loss of the building's heating system and required SFHA to vacate ground level apartments. Second story apartments are without heat. The failure of the heating system results also in a violation of San Francisco Housing Code Section 701(C), which requires apartment buildings to have a minimum of 13 hours of heat a day to maintain a minimum temperature of 68 F. In addition to the lack of space heating, the boiler leakage has caused thermal pollution, electrical hazards, and deterioration of sewer facilities. The boiler leakage has wasted huge amounts of energy and water during a period of drought.

This request for emergency declaration is for the SFPUC Power Enterprise on behalf of the San Francisco Housing Authority. The amount budgeted for this work is \$850,000.00. Because the total cost of replacement of the boiler and repairs to facilities exceeds \$250,000, we are required to notify the Board of Supervisors of this emergency.

Power Enterprise intends to fund this project from revenues collected pursuant to an agreement with TransBay Cable, which must be expended, in part, on energy efficiency improvements and projects that reduce greenhouse gas emissions and benefit low income and disadvantaged communities in San Francisco. This project will result in significant energy savings and reductions in greenhouse gas emissions, as well as substantial water savings, and improve the health and safety of tenants, employees and members of the public.

I am therefore declaring the existence of an emergency. I trust that this meets with your concurrence and approval.

CO:

A handwritten signature in black ink, appearing to read 'Vince Courtney', written over a horizontal line.

Vince Courtney, President
San Francisco Public Utilities Commission

cc: SFPUC Commission Members
Todd Rydstrom, AGM Business Services
Barbara Hale, AGM Power Enterprise

SECTION 00 61 13

PERFORMANCE BOND PAYMENT BOND FORM

KNOW ALL MEN 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:

Cornely Company, located at 1127 Mission Street, San Francisco, CA 94103

hereinafter designated as the "Principal", a Contract for:

**SAN FRANCISCO HOUSING AUTHORITY POTRERO TERRACE EMERGENCY
BOILER AND DISTRIBUTION PIPING REPLACEMENT
Contract No. PW-005(E) (Not to Exceed \$500,000)**

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 _____

lawful money of the United States 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, otherwise the above obligation shall become and be null and void. 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.

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.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their seal this ____ day of _____, 201__, 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.

Approved as to form:

Dennis J. Herrera
City Attorney

By: _____
Deputy City Attorney

Principal _____

By: _____

Surety _____

By: _____

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 Public Contract Code of the State of California, 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 San Francisco Housing Authority Potrero Terrace Emergency Boiler and Distribution Piping Replacement, Contract No. PW-005(E) 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 _____, and shall designate Contractor as the beneficial owner.
2. 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.
3. 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.
4. 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.

5. 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.
6. 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.
7. 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.
8. Upon receipt of written notification from the City certifying that 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.
9. Escrow Agent shall rely on the written notifications from the City and Contractor pursuant to sections 5 to 8, 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.
10. The names of the persons who are 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, and exemplars of the respective signatures, are as follows:

a. On behalf of the City:

 (Title)

 (Name)

 (Signature)

 (Address)

or:

 (Title)

 (Name)

 (Signature)

 (Address)

b. On behalf of Contractor:

(Title)

(Name)

(Signature)

(Address)

c. On behalf of Escrow Agent:

(Title)

(Name)

(Signature)

(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:

Recommended:

By: _____
Todd L. Rydstrom
AGM Business Services/Chief Financial Officer

Approved as to form:
Dennis J. Herrera
City Attorney

By: _____
Deputy City Attorney

CONTRACTOR:

(Title)

(Name)

(Signature)

Note: Contractor shall submit 4 original executed copies of this section to the Awarding Agency.

END OF SECTION

FORM 8: CMD EXIT REPORT AND AFFIDAVIT

Prime Contractor must complete and sign this form (Sections 1 and 4) for each LBE subcontractor (incl. each lower-tier LBE subcontractor), supplier and trucker. All LBEs must complete and sign Sections 2 and 3 of this form. These forms should be submitted to the Contract Awarding Authority and CMD with the final progress payment request.

TRANSMITTAL

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:

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 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 signed by the LBE:

I agree

I disagree

Explanation by LBE if it is in disagreement with the above explanation or with the information on this form. LBE must complete this section within 5 business days after it has received it from the Prime. It is the LBE's responsibility to address any discrepancies within 5 business days concerning the final amount owed. If the LBE fails to submit the form within 5 business days, the Prime will note this on the form and submit the form as is with the final progress payment.

Owner/Authorized Representative (Signature)

Name and Title (Print)

Firm Name

Telephone

Date

SECTION 4.

If this form is submitted without the LBE's signature, the Prime must enclose verification of delivery of this form to the subcontractor/supplier.

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

Date

SECTION 00 72 00
GENERAL CONDITIONS
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GENERAL CONDITIONS

ARTICLE 1 - GENERAL

1.01 DEFINITIONS

A. Wherever a word or phrase defined below, or a pronoun used in place thereof, is used in the Contract Documents (as defined in Paragraph 1.02), 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, 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. In no case shall the City's approval 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 instruments issued prior to the opening of Bids which make changes, additions or deletions to the Bid Documents. Refer to Section 00 21 13.

3. **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.

4. **Alternate Bid Item:** A Bid item that may be added to or deducted from the Total Bid Price to meet Project construction budget requirements.

5. **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.

6. **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 proof of

equality is the responsibility of Contractor. Refer to Division 01 for procedures for proposing substitutions.

7. **Bid, Bid Documents:** Refer to Section 00 21 13— Instructions to Bidders.

8. **Bidding Requirements:** The Sections listed in Section 00 01 10 (Table of Contents) under the heading "Bidding Requirements."

9. **Bonds:** Bid, 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 and 00 61 13 for Bond forms.

10. **Bulletin:** Refer to "Field Order."

11. **By Others:** Work on this Project that is outside the scope of Work to be performed by Contractor under this Contract, but that will be performed by the City, other contractors, or other means and at other expense.

12. **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 term or condition. Refer to Article 6, Clarifications and Changes in the Work.

13. **Change Order Request (COR):** Refer to Paragraph 6.03, Change Order Requests and Proposed Change Orders.

14. **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.

15. **City Representative:** The authorized on-Site representative of the City, as identified at the pre-construction conference convened by the City, in the performance of on-Site inspection and administration of the Contract. All liaisons between the City and Contractor shall be directed through the City Representative.

16. **Claim:** A written demand or assertion by Contractor seeking an adjustment or interpretation 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 or matters in question between the City and the Contractor arising out of or related to the Contract Documents of the

performance of the Work, which is submitted in accordance with the requirements of the Contract Documents. Refer to Article 13.

17. Clarification: A document consisting of supplementary details, instructions or information issued by the City which clarifies or supplements the Contract Documents. Clarifications do not constitute a change in Contract Work, 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.

18. 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.

19. Commission: Refers to the Contract awarding authority for City departments with boards or commissions (i.e., the San Francisco Public Utilities Commission, the San Francisco Recreation and Park Commission, the San Francisco Port Commission, the San Francisco Airport Commission, or the Board of Directors of the San Francisco Municipal Transportation Agency, as appropriate). Refer to Section 00 52 00, Agreement Form.

20. Contract: Refer to "Contract Documents."

21. Contract Documents: Refer to Paragraph 1.02, Contract Documents and Contracting Requirements.

22. Contract Sum: The sum stated in the Agreement and, including authorized 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.

23. Contract Time(s): The number of consecutive days as stated in Section 00 73 02 to: (i) achieve Substantial Completion; (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 San Francisco Administrative Code; and (iii) achieve any interim Milestones specified in the Contract Documents.

24. 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).

25. 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.

26. Critical Path: A continuous chain of activities with zero float running from the start event to the finish event in the schedule.

27. Critical Path Method (CPM): Refers to the critical path method scheduling technique.

28. Day: Reference to "day" shall be construed to mean a calendar day of 24 hours, unless otherwise specified.

29. Default: Refer to Paragraph 14.01, Notice of Default; Termination by the City for Cause.

30. 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.

31. Department Head: The contracting officer for the Contract (i.e., the General Manager of the San Francisco Public Utilities Commission, the Director of the Department of Public Works of the City and County of San Francisco, the Executive Director of the Port of San Francisco, the General Manager of the San Francisco Recreation and Parks Department, the Director of Transportation of the San Francisco Municipal Transportation Agency, or the Director of the San Francisco International Airport, as appropriate), or his/her 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.

32. Designated, Determined, Directed: Required by the City, unless otherwise specified. Refer to Paragraph 2.01, Administration of the Contract.

33. Differing Site Conditions: Refer to Paragraph 3.03, Differing Site Conditions.

34. 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.

35. 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.

36. 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.

37. Field Order: A written order issued by the City which provides instructions or requires minor

changes in the Work but which 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.

38. Final Completion: The date of written acceptance of the Work by the City, issued in accordance with section 6.22(K) of the San Francisco Administrative Code, when the Contract Work has been fully and satisfactorily completed in accordance with the Contract Documents.

39. Force Account Work: Change Order Work to be paid 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.

40. Furnish: Purchase and deliver to the Site, including proper storage only; no installation is included. The term "Furnish" also means to Supply and Deliver to the Site.

41. General Requirements: The General Requirements include all Documents in Division 01, and govern the execution of the Work of all sections of the Specifications.

42. Guarantee To Repair Period: The period specified in Paragraph 8.03 or Division 01 during which Contractor must correct Non-conforming Work.

43. Indicated: Shown or noted on the Drawings or written in the Specifications.

44. Install: Apply, connect or erect items for incorporation into the Project; Furnishing or Supplying is not included. 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.

45. Installer: A person engaged by Contractor, its Subcontractor or Lower-Tier Subcontractor for performance of a particular element of construction at the Site, including installation, erection, application and similar required operations.

46. Item: A separate, distinct portion of the whole Work, which may comprise material, equipment, article, or process.

47. Lower-Tier Subcontractor or Supplier: A person or entity who 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.

48. Milestone: A principal date or time specified in the Contract Documents relating to an intermediate event prior to Substantial Completion.

49. Modification: A document incorporating one or more Change Orders approved by the City to

comply with the Certification by Controller requirements of the City's Charter as stated in Section 00 52 00.

50. 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 referred to in the Contract Documents; or Work that has been damaged or disturbed by Contractor's operations contrary to the Contract Documents prior to Final Completion.

51. Notice of Default: Refer to Paragraph 14.01, Notice of Default; Termination by the City for Cause.

52. Notice of Potential Claim: Refer to Paragraph 13.02, Notice of Potential Claim.

53. Notice of Substantial Completion: The written notice issued by the City to Contractor acknowledging that the Work is Substantially Complete as determined by the City. Said Notice shall not be considered as 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.

54. 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 of the Work.

55. Owner: Refer to "City."

56. Paragraph: A paragraph under an Article of these General Conditions. Refer to "General Conditions-Table of Contents" for a listing of Article and Paragraph numbers and titles.

57. Partial Utilization: Right of the City to use a portion of the Work prior to Substantial Completion of the Work.

58. Project: Refer to "Work."

59. Project Manual: The bound written portion of the Contract Documents prepared for bidding and constructing 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.

60. Proposed Change Order (PCO): A document prepared by the City requesting a quotation of cost or time from Contractor for additions, deletions or revisions in the Work initiated by the City or Contractor.

61. Provide: Furnish and Install or Supply and Install complete in place at the Site.

62. Punch List / Final Completion: A punch list prepared by the City identifying deficient Items to be corrected by Contractor prior to Final Completion. Refer to Paragraph 9.09, Final Completion and Final Payment.

63. Punch List / Substantial Completion: The list provided by the City identifying Items that shall be corrected or completed before the City considers the Work Substantially Complete. Refer to Paragraph 9.08, Substantial Completion.

64. Quality Assurance (QA): All those planned and systematic actions necessary to provide adequate confidence that a Quality Control Program has been applied.

65. 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.

66. Reference Documents: Refer to Section 00 21 13- Instructions to Bidders and Section 00 31 00 for identification of Reference Documents, if any.

67. Regular Working Hours: 7:00 a.m. to 5:00 p.m., Monday through Friday, except City legal holidays.

68. Request for Information (RFI): A document prepared by Contractor requesting information from the City regarding the Project or Contract Documents.

69. Request for Product Substitution (RFPS): A request from Contractor in accordance with the conditions specified in Division 01 to substitute a material, product, thing or service specified in the Contract Documents with an equal material, product, thing or service. Refer to Paragraph 3.11, Substitutions, and Section 00 49 18, Request for Product Substitution form.

70. Required: In accordance with the requirements of the Contract Documents.

71. Resident Engineer: See "City Representative."

72. Samples: Physical examples of materials, equipment, or workmanship that are submitted for adjudication of their compliance with the specification.

73. Shop Drawings: All drawings, diagrams, illustrations, schedules and other data or information which are prepared or assembled by or for Contractor and submitted to City.

74. Site: Geographical location of the Project as indicated elsewhere in the Contract Documents.

75. 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 Documents as listed in Section 00 01 10, Table of Contents.

76. Specifications: The portion of the Project Manual comprising Division 01 through Division 16 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.

77. Specified: Written or indicated in the Contract Documents.

78. Subcontractor: A person or entity who 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 a person or entity who 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.

79. 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, issued by the agency having jurisdiction over the Work so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended.

80. Supplementary Conditions: The part of the Contract Documents that amends, deletes or modifies these General Conditions. The Supplementary Conditions are set forth in Section 00 73 00.

81. 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.

82. Supply: Refer to "Furnish."

83. Total Bid Price: Refer to Section 00 21 13- Instructions to Bidders.

84. Unavoidable Delay: Refer to Paragraph 7.02, Delays and Extensions of Time.

85. Unilateral Change Order: A written Change Order to Contractor issued after the effective

date of the Agreement in accordance with Paragraph 6.05.

86. Unit Price Work: Work to be paid for on the basis of unit prices and actual quantities of Work. Refer to Paragraph 6.08.

87. 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, 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.

88. Working Day: Any day of the week except Saturdays, Sundays and statutory holidays.

1.02 CONTRACT DOCUMENTS AND CONTRACTING REQUIREMENTS

A. The Contract Documents form the entire Contract for the construction of the Work, and consist of the following:

1. the Drawings, Project Manual, and all Addenda thereto;
2. the Agreement and other documents listed in the Agreement;
3. Change Orders, Unilateral Change Orders, Clarifications, and Field Orders issued after execution of the Contract; and
4. all provisions of the Bid Documents, as defined in Section 00 21 13, not in conflict with the foregoing.

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, each item shall be subject to 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.

B. The intent of the Contract Documents is to describe and provide for a functionally complete and operational Project (or part thereof) to be constructed in accordance with the Contract Documents. 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 shall be provided by Contractor 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 throughout corresponding parts of 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 submitted to the City for approval. 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 Contractor will be compensated for the amount in excess of 125% under the provisions for Change Orders of Article 6. Actual layout of the Work shall be carried out without affecting the architectural and structural integrity and limitations of the Work; shall be performed 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 is not intended to 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 3.03, 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.

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 Contract Documents may be amended 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 requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, 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 3.10.

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 which 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, Change Orders, and Unilateral Change Orders in inverse chronological order, and in same order as specific portions they are modifying.
2. Written Clarifications and Field Orders.
3. Executed Agreement Form.
4. Addenda.
5. Supplementary Conditions.
6. These General Conditions.
7. General Requirements (Division 01).
8. Other Contracting Requirements.
9. Divisions 2 through 16 of the Specifications.
10. Drawings.
11. 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 were prepared for the Work of this Contract only. No part of the Contract Documents shall be used for any other construction 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. Reference is made to Division 01 for 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 performance of this Contract make changes in the authority of any representative or may designate additional representatives in accordance with the City's Charter and codes. These changes will be communicated 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, of anyone not authorized to issue such order.

2.02 INFORMATION AND SERVICES

A. The City's survey information, such as monuments, property lines, and reports describing physical characteristics, legal limitations and utility locations for the Site are available as Available Project Information.

B. The City shall apply and pay for the building permit if required for the Work and shall pay all permanent utility service connection fees. All other permits, easements, approvals, temporary utility charges, and other charges required for construction shall be secured and paid for by Contractor in accordance with Paragraph 3.06.

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, until the cause for such order has been eliminated. Any such order to stop the Work shall be in writing, provide Contractor with an effective date for stopping Work, and shall be signed by the City Representative. 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 any such 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. Reasons for ordering Contractor to stop the Work, or a portion thereof, include but are not limited to the following:

1. Contractor fails to correct Work which 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 and regulations of a public body having jurisdiction over the Project; or
5. Contractor violates in any substantial way any provisions of the Contract Documents; or
6. Contractor fails to maintain current certificates of insurance on file with the City; or
7. Original Contract Work is proceeding but will be modified by a pending Change Order.

D. 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 promptly correct or prosecute the Work within a 3-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 costs of City staff and consultants, from amounts due Contractor. If funds remaining under the Contract are not sufficient to cover the costs of such corrections, Contractor shall reimburse the City.

2.05 RIGHT TO CHANGE, SUSPEND OR DELAY THE WORK

By executing this Contract, 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 issued 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; and (v) delay or disrupt the Work due to failure of the City to timely perform any contractual obligation.

2.06 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, escrow bid documents, bid cost data, schedules, subcontracts, job cost reports, correspondence, 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 Change Order Request; (ii) Force Account Work; or (iii) 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 2.06A for examination, audit, or reproduction. Notice shall be in writing, delivered by hand or by certified mail, and shall provide not fewer than five-days' notice of the examination and/or audit. The City may take possession of the records and materials noted in subparagraph 2.06A 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 Contract.

E. Failure by the Contractor to make available any of the records or materials noted in subparagraph 2.06A 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 with Subcontractors and Suppliers of all tiers in excess of \$10,000.

2.07 NO WAIVER OF RIGHTS

None of the following shall operate as a waiver of any provision of this Contract or of any power herein reserved by the City or any 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.

2.08 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.

ARTICLE 3 - CONTRACTOR'S RESPONSIBILITIES

3.01 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 which appear 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 the Work to be executed 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 the answer could reasonably be found 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 prior to the start of Work a complete report of existing conditions determined by the site survey as indicated in Division 01.

3.02 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 is solely 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 the 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 herein contained shall be taken to relieve Contractor of any of its obligations or liabilities under this Contract, or of performing its required detailed direction and supervision.

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; (ii) subject them to inspection at all such places; and (iii) reject if the Work does 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, it shall not 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 3 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, all Work performed before the receipt of the Clarification shall be coordinated 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 to be submitted under the requirements of 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.

3.03 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 such conditions are disturbed and before performing any affected Work to permit the City to timely investigate the conditions.

1. Subsurface or latent physical conditions at the Site (including hazardous waste) which differ materially from those indicated by information about the Site made available to bidders prior to the deadline for submitting bids.

2. Unknown physical conditions at the Site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in the 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;

3. Conditions that are materially similar or characteristically the same as those indicated or described in the Contract Documents or Available Project Information.

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 a written report of 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 a Cost Proposal and/or Time Adjustment Proposal, as appropriate, per Article 6 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. Failure by Contractor 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 shall be deemed a waiver of any Contract Claim or subsequent proceedings (e.g., Government Code Claims and litigation) by Contractor for adjustments to the Contract Sum or Contract Time arising from or relating to such conditions.

3.04 SUPERINTENDENTS 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 will be held liable for the faithful compliance with such instructions. Prior to the issuance of Notice to Proceed, Contractor shall inform the City in writing of the names, addresses and telephone numbers of its key personnel whom it has authorized to act as its representatives at the Site and who are to be

contacted 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.

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 3.05A. The City shall be given written notice of, and shall have the right to approve, replacement of Contractor's project manager, superintendents and foremen.

C. In the event that the Contractor proposes to substitute a key team member during the performance 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) for the City's review and acceptance. Any proposed substitution is subject to the approval of the City Representative based upon qualifying experience on similar projects as set forth in the bid documents for the project. Failure to obtain the City's acceptance shall not constitute a cause for delay. In addition, the City may issue an order to stop the work under Article 2.03 until such time as the Contractor engages persons possessing skills and qualifications acceptable to the City.

3.05 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 notification Contractor shall discharge from the Work and replace at no additional cost to the City an employee, Subcontractor 00 73 02 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) is refusing to carry out the provisions of the Contract.

B. In order that the City can determine whether Contractor has complied or is complying with the requirements of the Contract which 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 clarify the intended design. Upon commencement of a particular item of Work, Contractor shall be responsible for dimensions related to such item of Work.

D. All materials and equipment shall be delivered, handled, stored, installed, and protected 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 to 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.

3.06 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, Appendices A and B.

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 Bid Documents to be obtained at Contractor's expense.

C. Pursuant to section 832 of the California Civil Code, Contractor shall give all notices required by laws, ordinances, rules, regulations and lawful orders of public authorities that relate to performance of the Work.

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, an approved set of Drawings and Specifications, and a copy of the Code 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 will 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 permit documents including, but not limited to, job cards, permit applications, permit Drawings, and certificates of occupancy.

3.07 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, 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, record documents shall 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 3.07A. The City shall have the right to withhold 25 percent of progress payments due Contractor until Contractor has complied with this Paragraph 3.07.

C. Record documents shall be available for inspection by the City at all times and shall be delivered to the City prior to Substantial Completion.

3.08 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.

3.09 PROGRESS AND SUBMITTAL SCHEDULES

A. At the Pre-Construction Conference, Contractor shall submit to the City for review a 60 day bar chart type Plan of Operation as required by Division 01.

B. Prior to commencing Work, Contractor shall submit to the City for review the following schedules:

1. a cost-and-resource-loaded base line 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 3.09A. Contractor shall have an additional 5 days to make corrections and adjustments and to complete and resubmit the schedules.

D. No progress payments will be made to Contractor unless and until the base line schedule is submitted and accepted by the City.

E. Contractor shall adhere to the base line construction schedule accepted by the City in accordance with subparagraph 3.09C 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 base line construction schedule. Proposed adjustments in the base line construction schedule that will change the Contract Times shall be submitted to the City in accordance with Paragraph 7.02.

F. Acceptance of base line construction and submittal schedules by the City 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 Division 01. All updates shall be submitted to the City for the City's acceptance; if rejected, Contractor shall correct and resubmit updates to the satisfaction of the City before a pending application for payment is approved.

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 base line 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."

3.10 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. Submittals made by Contractor that are not required by the Contract Documents may be returned without 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 3.01, 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's action will be taken with such reasonable promptness provided that the City shall be provided a reasonable time, as set forth in Division 01, 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 or other costs necessary to prepare the submittals and obtain approvals required by the Contract Documents from the City or other authorities having jurisdiction. The City is not precluded, by virtue of such approvals/acceptances, from obtaining a credit for construction cost resulting from allowed 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. Deviations shall also be indicated clearly and boldly on such shop drawing, product data, sample or related submittal.

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.

3.11 SUBSTITUTIONS

A. Pursuant to section 3400 of the California Public Contract Code, Contractor shall submit for approval to the City a properly completed Request for Product Substitution (refer to 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 shall be as specified in Division 01.

3.12 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 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. Pumping, draining and control of surface and ground water and excavating or other earthwork shall be carried out 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 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.

3.13 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 Work, 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.

3.14 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.

3.15 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. Removal and disposal of such excess materials, rubbish, and other debris shall conform to applicable laws and regulations.

B. If Contractor fails to comply with Article 3.15 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 Contractor under the Contract.

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.

3.16 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, other parties designated in Article "Insurance for Others" of Section 00 73 16, 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 3.19 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, (1) modify the Work, consistent with applicable requirements of the Contract Documents, so as to avoid infringement of any such intellectual property right, or (2) 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 3.16C and 3.16D, 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.

3.17 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.

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.

D. The warranty provisions of this Paragraph 3.17 are separate and additional to the provisions for the Guarantee to Repair Period and correction of Non-conforming Work as specified in Article 8.

3.18 TAXES

A. 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.

3.19 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, other parties designated in Article "Insurance for Others" of Section 00 73 16, 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. Contractor's defense, indemnity and hold harmless obligations shall extend to City Consultants (e.g., design professionals and construction managers) providing services under separate written agreement with the City covering any portion of the Project and designated as additional insureds in Article "Insurance for Others" of Section 00 73 16.

2. Contractor's defense, indemnity and hold harmless obligations shall not extend to the liability of a City Consultant designated as additional insured in Article "Insurance for Others" of Section 00 73 16 or its agents, employees or subconsultants arising out of, connected with or resulting from such indemnitee's own active negligence, errors or omissions or from (1) such indemnitee's preparation or approval of maps, plans, opinions, reports, surveys, Change Orders, designs or Specifications, or (2) such indemnitee's issuance of or failure to issue directions or instructions provided that such issuance or failure to issue is the primary cause of the damage or injury.

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 3.19A 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 thirty (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 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 it reasonably may deem 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, or caused by the claim to the fullest extent provided in this Paragraph 3.19.

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 the amount of damages and to pay the same, and the amount so paid shall be deducted from the amount due Contractor under this Contract, or an appropriate amount shall be retained by the City until all suits or claims for said damages shall have been settled or otherwise disposed of and satisfactory evidence to that effect shall have been furnished 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.

3.20 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. All construction and materials provided under the Contract Documents shall be 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 they shall be observed and complied with by Contractor and any and all persons, firms and corporations employed by or under it.

C. As required by and in accordance with the procedures specified in Paragraph 3.19, Contractor shall assume the defense of, indemnify and hold harmless the City, its boards and commissions, other parties designated in Article "Insurance for Others" of Section 00 73 16, 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 applicable laws, regulations, orders or decrees are being complied with. 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. No additional costs will be paid or extensions of time granted as a result of Contractor's compliance with this Paragraph 3.20.

3.21 LIABILITY OF CONTRACTOR – CONSEQUENTIAL DAMAGES

Contractor shall be responsible for special, consequential or incidental damages incurred by the City arising out of or connected with Contractor's performance of the Work.

ARTICLE 4 - SUBCONTRACTORS

4.01 SUBCONTRACTS AND OTHER CONTRACTS FOR PORTIONS OF THE WORK

A. Unless otherwise specifically provided by the Contract Documents, subcontracting shall be in accordance with the governing regulations regarding

subcontracts and section 6.21 of the San Francisco Administrative Code. Section 6.21 shall govern the designation of, failure to specify, and substitution of Subcontractors and the assignment, transfer and performance of subcontracts.

B. 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. All Subcontractors and Suppliers shall have similar agreements with Lower-Tier Subcontractor and Lower-Tier Suppliers. All Subcontractors and Suppliers shall be given copies of the contract documents to which the Subcontractor or Supplier will be bound, and upon written request of the Subcontractor or Supplier, shall have identified written terms and conditions of their 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. All subcontracts of Subcontractors and Lower-Tier Subcontractors and purchase agreements of Suppliers and Lower-Tier Suppliers shall provide that they 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 to timely fulfill its obligations under the performance bond.

B. The City will notify the Subcontractors, 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. All transactions with Subcontractors will be made through Contractor, and no Subcontractor shall 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 shall request approval of a replacement Subcontractor to perform the Work in accordance with Administrative Code section 6.21(A)(9) and the Subletting and Subcontracting Fair Practices Act, Cal. Public Contract Code section 4100 et seq., at no added cost to the City.

D. The Contract shall not be assigned except upon the 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 cleanup and demobilization has been completed. 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 assume the following mutual responsibilities for the benefit of the other party at no additional cost to the City:

1. both parties shall execute identical agreements mutually indemnifying each other from any loss, damage, or injury that may be incurred as a result of the performance of work by the other while both are performing work in the same location;
2. both parties shall add the other party as an additional insured under their respective liability policies;
3. the party seeking to use portions of the construction Site of the other party to perform its work shall pay all direct costs incurred by the other party to accommodate its operations; and
4. if Contractor contends that delay or additional cost is involved because of such action by the City, Contractor shall make such Claim by the procedures as provided in Article 13.

G. The City shall not be a party to any of the agreements between multiple contractors and shall have no liability to any party with regard to the lack of coordination and cooperation or the inability of a party to execute specific work requirements. Contractor agrees to indemnify and hold the City harmless for all claims or losses that Contractor or the other contractors may incur as a result of their inability to successfully obtain work areas under the control of one of the parties.

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 satisfactorily 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 directions; or

2. direct others to perform portions of the Contract and charge the cost of Work against the Contract Sum; or

3. terminate any and 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 amount due Contractor under the Contract the cost of said clean up as the City determines equitable.

ARTICLE 6 - CLARIFICATIONS AND CHANGES IN THE WORK

6.01 GENERALLY

A. The City may, at any time between the Notice to Proceed and 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 Division 01. 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 shall 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. If additional time is needed to issue the reply, the City will, within the 10 working-day reply period, notify the Contractor of the longer reply period.

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 (COR) AND PROPOSED CHANGE ORDERS (PCO)

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 5 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. A 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 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 determination on a COR which states 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 per 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 the City's failure to issue a determination shall be treated as the 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 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.

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;

c. equipment breakdown by make, type, size, rental rates, and equipment hours; and

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. Failure to comply with the requirements set forth in this subparagraph 6.03F shall constitute a 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 Article 3 of Section 00 52 00) 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, 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. Change Orders issued 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 shall submit, within 5 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 a COR is not timely submitted as required, Contractor waives all rights to additional compensation for said Work, and payment, which shall constitute full compensation for Work included in the Unilateral Change Order, will be made as set forth in the Unilateral Change Order. The City will review the COR and issue a determination per 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 per subparagraph 6.05(C), below. 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 to timely 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 per subparagraph 6.05(C), below (but does not have to submit a revised/new COR).

C. Claim Notification: Contractor waives all costs exceeding the City's estimate for the Unilateral Change Order Work unless Contractor submits a written Notice of Potential Claim in accordance with the requirements of Article 13. Said Notice shall be submitted 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, Contractor will be paid 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. Contractor will be paid 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, will 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, will be added a labor surcharge as set forth in the version of the California Department of Transportation publication entitled Labor Surcharge and Equipment Rental Rates which is in effect on the date upon which the extra work is accomplished and which is incorporated by reference as though set forth in full. That labor surcharge shall constitute full compensation to Contractor for all of its costs for worker's compensation insurance, Social Security, Medicare, federal unemployment insurance, state unemployment insurance, and state training taxes. No other fixed labor burdens will be considered, unless approved in writing by the City.

c. Subsistence and Travel Allowance. The actual subsistence and travel allowance paid to such workers.

2. Materials: The 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, such discount shall be credited to the City 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, 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: Payment for equipment costs on Change Orders will be made at the lesser of the rental rates listed for such equipment as specified in the current edition, at the time of the Change Order, of: (i) 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 <http://www.dot.ca.gov/hq/construc/equipmnt.html>; or (ii) "Rental Rate Blue Book," published by EquipmentWatch, a unit of Penton Media, Inc., 181 Metro Drive, Suite 410, San Jose, California 95110, phone (800) 669-3282 (see http://www.equipmentwatch.com/Marketing/RRBB_overview.jsp for information).

Such rental rates shall be adjusted as appropriate and will be used 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, Contractor will be reimbursed 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 publications identified above, payment for equipment costs or the City's assessment of the reasonableness of rates in arm's length rental or lease transactions will be based on the lowest quote obtained by the City from either CALTRANS or EquipmentWatch. 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; however, EquipmentWatch charges for its quote service (a charge that will be paid by the City if the City seeks a quote from EquipmentWatch). Accordingly, if CALTRANS provides a quote for a rental rate, then the City, at its sole discretion, may elect not to seek a quote from EquipmentWatch and will use only the CALTRANS quote.

a. Daily, weekly, or monthly rates shall be used, whichever are lower. Hourly rates including operator shall not be used. Unless otherwise specified, manufacturer's ratings and manufacturer-approved modifications shall be used to classify equipment for determination of applicable rental rates. If, however, equipment of unwarranted size or type and cost is used, the cost shall be calculated at the rental rate for equipment of proper size and type.

b. The actual time to be paid for equipment shall be the time the equipment is in productive operation on the Work under the Change Order. No payment will be made for time while equipment is inoperative due to breakdown or for non-work days. In addition, the rental time shall not include the time required to move the equipment to and from the Site. Loading and transportation costs will be paid, 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. No mobilization or demobilization will be allowed for equipment already

on the Site. Equipment that is idle, non-operating or in standby mode shall be reimbursed at the lesser of Caltrans' rates, as adjusted by Caltrans' Delay Factor, or EquipmentWatch's rates, 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, and no payment will be made 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 there will be added 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. No separate allowance or itemization for overhead costs shall be allowed. 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 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 for Overhead and Profit: The following maximum percentage markups shall be applied to the total direct costs for each direct cost category. These markups provide 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%
Subcontractor (of any tier) direct labor	35%
Subcontractor/Supplier (of any tier) direct materials	15%
Subcontractor/Supplier (of any tier) direct equipment	15%

1. For Work performed by a Subcontractor, Contractor shall receive a maximum 7.5 percent markup on the Subcontractor's total cost (total cost includes direct costs plus applicable markups specified above). Such additional 7.5 percent markup shall reimburse Contractor for all additional indirect, administrative and overhead costs associated with Change Order Work performed by the Subcontractor.

2. For Work performed by a Lower-Tier Subcontractor, Contractor and Subcontractor shall each receive a maximum 7.5 percent markup on the total cost of their respective Lower-Tier Subcontractors. Such additional 7.5 percent markup shall reimburse Contractor and Subcontractor for all additional indirect, administrative and overhead costs associated with Change Order Work performed by the Lower-Tier Subcontractor.

3. In no case shall the sum of the individual markups specified in subparagraphs 6.06C(1) and 6.06C(2), above, exceed 20 percent, regardless of the number of Subcontractor tiers involved in performing the Change Order Work.

D. For Work to be deleted by 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 which 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. Neither Contractor nor the Subcontractor shall receive a markup on their respective Lower-Tier Subcontractors to administer the credit 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, payment will be made to Contractor for direct costs of such Work actually performed plus markup for overhead and profit as provided in subparagraph 6.06C.

3. Contractor shall not be compensated for costs incurred after receipt of 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, the material shall be returned and Contractor will be paid 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. No additional compensation will be provided Contractor for the cost of its Subcontractors and Suppliers to review, post, coordinate, and perform related tasks to administer Change Orders which do not result in direct cost charges from such Subcontractors or Suppliers. Such costs shall be considered normal business costs, which are contractually determined between Contractor and its Subcontractors and Suppliers prior to Bid, and such costs shall be included in Contractor's 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 additions, deletions, or revisions in the Work are to be paid for 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 Paragraph 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 shall be witnessed, documented, and approved in writing by the City on the day that the Work is performed. Contractor will not be compensated 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 percent of the budget pre-established by the City. Contractor will not be compensated for Force Account Work exceeding the "not to exceed" budget amount if Contractor fails to provide the required notice before exceeding 80 percent of the Force Account budget.

C. Reports: Contractor shall diligently proceed with the approved Force Account Work and shall submit to the City no later than 12:00 p.m. of the day following performance of Force Account Work a daily Force Account Work report on a form obtained from the City. The report shall 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's authorized representative shall complete and sign the report. Contractor will not be compensated for Force Account Work for which said timely report is not completed and submitted 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 Contract Sum will be deemed to include for all Unit Price Work an amount equal to the product of the established unit price Bid 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 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 Division 01, and the Contract Sum will be adjusted based on the actual quantities of Work performed.

1. Each unit price on the 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 percent, the Work in excess of 125 percent of such estimated quantity will be paid for by adjusting the unit price Bid therefor as follows:

1. The unit price will be adjusted by the difference between the unit price Bid for the Item and the actual unit cost, determined as follows, of the total quantity of Work performed under said Item. The actual unit cost will be determined 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 percent 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 percent of the quantity as indicated on the Schedule of Bid Price is less than \$5,000 at the unit price Bid therefor, the City reserves the right to make no adjustment in said unit price if the

City so elects, except that an adjustment will be made if Contractor submits a Change Order Request (COR) in accordance with the requirements of Paragraph 6.03.

3. At the City's option, payment for Unit Price Work in such excess will be made 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 percent of the estimated quantity indicated on the Schedule of Bid Prices, an adjustment in compensation will not be made unless Contractor submits a COR in accordance with Paragraph 6.03. If Contractor so requests, the quantity of said Item performed will be paid for by adjusting the unit price Bid therefor as follows:

1. The unit price will be adjusted by the difference between the unit price Bid for the Item and the actual unit cost, determined 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 Bid therefor.

2. The payment for the total pay quantity of such Item of Unit Price Work will in no case exceed the payment which would be made for the performance of 75 percent of the estimated quantity as indicated on the Schedule of Bid Prices at the unit price Bid therefor.

3. At the City's option, payment for the Work involved in such deficiency will be made 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 5 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. No demolition, removal, or reconstruction Work at the Site shall be started 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 has been issued by the City 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. The Work of this Contract shall be brought 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, 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. 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 shall not be affected by the acceptance of any of the Alternate Bid Items 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 the Order of Award of the Contract specified on Section 00 41 00.

5. The specified limits of Contract Time may be changed only by a Change Order. 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. No additional compensation will be paid for such cooperation.

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 3.09, 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 steps as follows 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 the desired rate of progress will be regained:

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 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 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 6.22H.2.c of the San Francisco 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 could not have been avoided by Contractor's exercising care, prudence, foresight, and diligence. Moreover, in accordance with the progress schedule requirements of Paragraph 3.09, Contractor shall demonstrate that the Unavoidable Delay actually extends the most current Contract Substantial Completion date. 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 Paragraph 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 ordered by the City insofar as they necessarily require additional time in which to complete the Project; the prevention by the City of Contractor from commencing or prosecuting the Work; the prevention of Contractor from commencing or prosecuting the Work because of the acts of others, excepting Contractor's Subcontractors and Suppliers of all tiers; the prevention of Contractor from commencing or prosecuting the Work because of failure of the City to furnish the necessary materials, when required by the Contract Documents and when requested by Contractor in the manner provided in the Contract Documents; 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 may be appropriately utilized 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, any delay impact caused by said failure on the progress schedule will be considered 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 per Paragraph 3.03, 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). If for any reason one or more of the conditions prescribed above is held 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 base line 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 Project 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 is less time than allowed under the Contract Documents, approval of substitution or value engineering requests which 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 base line 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 which 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, which 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 3.01C; or

4. any delay resulting from the City responding to Contractor-generated RFIs 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 percent of the scheduled labor, material and equipment resources for at least 5 hours per work day on activities shown as critical on the most current and City-approved progress schedule update, the delay will be classified as an Unavoidable Delay, and Contractor will be granted 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, or other natural phenomenon occurring at the Site which exceed the anticipated number of days of inclement weather 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 during normal working hours:

<u>Month</u>	<u>Rain Days</u>	<u>Month</u>	<u>Rain Days</u>
January	3	July	0
February	3	August	0
March	3	September	0
April	1	October	1
May	0	November	3
June	0	December	3

a. Contractor's progress schedule shall incorporate 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 6.22H.2.d of the San Francisco 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. The City may take steps to prevent the occurrence or continuance of the delay, and the City may 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 an extension of time will be granted 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.

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 no extension of time or adjustment of the Contract Sum will be granted by the City.

E. Extensions of Time:

1. In the event it is deemed necessary by the City to extend the time for completion of the Work to

be performed under these Contract Documents beyond the specified limits of Contract Time specified in the Contract Documents, such extensions shall in no way release any guarantees or warranties given by Contractor pursuant to the provisions of the Contract Documents, nor shall such extension of time relieve or release the sureties on the bonds executed pursuant to said provision.

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 6.22H.2.d of the San Francisco Administrative Code.

4. Adjustments to the Contract Sum for compensable time extensions shall be per Paragraph 7.03.

5. Extensions of time that cumulatively extend the Contract Time in excess of 10 percent of the original contract duration as specified in Section 00 73 02 shall be subject to the approval of the Mayor (or the Mayor's designee) or the Commission (or the Commission's designee), as appropriate.

6. In no event shall such extensions of time be granted subsequent to 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 which the City is entitled.

8. Should Contractor, 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 directors, officers, members, employees, and authorized representatives from responsibility of 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 Contract Sum will be adjusted for a compensable delay as specified in subparagraph 7.03.C, below, if, and only if, Contractor demonstrates that it is entitled to a compensable time extension per 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 7.03.A, above, then the City shall 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. Fair and reasonable compensation shall be calculated as follows:

1. Within the time and in the format specified by the City, Contractor shall submit a detailed listing of daily field office overhead cost components which are time related. The individual cost components shall represent costs which 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; 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 the Contract is to be extended. No markup for overhead and profit shall be allowed on the extended daily field office overhead cost.

4. The information submitted as required above shall be submitted in sufficient detail to allow review, and shall be prepared 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, extended home office overhead is not allowable. Extended home office overhead and its application to a compensable time extension will not be allowed 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 7.02(D), above. Within the time and in the format specified by the City, Contractor shall 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). Supporting evidence shall be prepared in accordance with generally accepted accounting principles, and the City shall have the right to audit Contractor's submittal under Paragraph 2.06 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 (i.e. unit priced and contingency allowance bid items). The baseline credit amount will be five (5) percent 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 five (5) percent, 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 2.06. If Contractor seeks either a credit of less than five (5) percent 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 which the City would suffer if the Work were not completed within the specified limits of Contract Time are dependent upon many circumstances and conditions which 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 which 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 all the Work specified or indicated in the Contract Documents is

not completed within the specified limits of Contract Time, or within such time limits as extended in accordance with Paragraph 7.02, actual damages will be sustained by the City 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 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 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 which 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. It is therefore agreed 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 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 percentages of payments as provided in Paragraph 9.06 which would otherwise be due or become due Contractor until the liability of Contractor has finally been determined.

2. The City shall have the right to use and apply such retained percentages, in whole or in part, to reimburse the City for all liquidated damages due or to become due to the City. Any remaining balance of such retained percentages shall be paid to Contractor only after discharge in full of all liability incurred by Contractor.

3. If the retained percentage is 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. No Work or portion of Work shall be covered until inspected by the City or other public authorities having jurisdiction as required by the Contract Documents.

B. If any part of the Work is covered 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. All testing and inspection of the Work required by the Contract Documents (other than special inspections as set forth in subparagraph 8.02B below) shall be arranged and paid for by Contractor 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. Special inspections to be performed by the City as specified in the Contract Documents or as required to comply with the Code or other agency having jurisdiction shall be performed at the City's expense. 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, 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, required certificates of testing, inspection or approval shall be secured by Contractor and furnished to the City 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. Tests or inspections conducted pursuant to the Contract Documents will be made promptly to avoid unreasonable delay in the Work.

1. The City reserves the right to charge to Contractor any additional cost of inspection, including travel, transportation, lodging, etc., or test 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 which 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 one (1) year, 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 B.1 and B.2, above, from the date of Final Completion.

C. The requirement 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 diligently prosecute such correction 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 5 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 immediate correction of Non-conforming Work is required for life safety or the protection of property and 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 which 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 3.17 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 proceedings may be commenced 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. Payment to Contractor at the Contract Sum shall be 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 such Work is to be performed or 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, 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. No progress payments will be made on account of 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 Division 01 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 Section 00 41 10.

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, a written formal approval of Contractor's schedule of values will be issued. If the City later determines that the schedule of values is insufficient or incorrect, an adjustment shall be made as specified in subparagraph 9.02B.1.

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, payment shall be made 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 Division 01.

1. The monthly value of lump sum Work shall be estimated by Contractor 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 Bid by Contractor, adjusted as specified in Paragraph 6.08 for the actual quantities of Work performed.

3. Progress payments on account of allowances named in Section 00 41 10 shall be made for such sums as may be acceptable to the City. Prior to final payment, an appropriate Change Order will be issued as directed by the City Representative to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Sum will be adjusted accordingly.

C. The Application for Payment shall identify the amount of Contractor's total charges to date.

D. Monthly progress payment amounts to Contractor shall be based upon completed Work or percentages of Work completed prior to the end of the payment period. Except as provided in subparagraph 9.10, no allowance will be made for materials or equipment not incorporated into the Work.

E. Monthly Applications for Payment shall be based on information developed at monthly progress meetings and shall be prepared by Contractor as specified in Division 01. Submission of approved monthly progress schedule updates for same period as the Application for Payment shall be a condition precedent to making progress payment Applications. No partial progress payment shall be made to Contractor until all cost information requested by the City is submitted and reviewed.

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 until midnight of the 25th day of the current month, less the aggregate of the amount of previous payments. Payments, however, may be withheld at any time that the Work, in the City's estimation, is not proceeding in accordance with the Contract, 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, of receiving 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 San Francisco 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 will be permitted to substitute securities for any moneys withheld 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

withheld 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, the securities shall be returned 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. The granting 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 the liability of Contractor 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 such payment was made.

K. It is mutually understood and agreed that the City may withhold from any payment otherwise due 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 any payment or portion of payment is withheld by the City, Contractor will be notified in writing of the cause(s) of such action.

L. Only Change Orders and undisputed portions of Unilateral Change Orders completely approved and executed by the City shall be included on the payment authorization, and only that portion of the Change Order Work actually performed shall be submitted for payment. Contractor shall submit a breakdown for each Change Order by Change Order number on its Application for Payment.

M. Submission of Electronic Certified Payrolls. No monthly progress payments will be processed until Contractor has submitted weekly certified payrolls to the City for the applicable time period. Certified payrolls shall be prepared pursuant to 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 World Wide Web through a web browser. The Contractor and each Subcontractor and Supplier will be assigned 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. 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 five (5) percent in retention from each progress payment.

B. When the City determines that the Work is 98 percent or more complete, the City may reduce retention funds to an amount equal to 200 percent 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 (1) any subcontractor certified by the City as an LBE or (2) 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 Work by the subcontractor is completed and satisfactory 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. Payment will be issued by the City based on the City's determination that the Work has progressed satisfactorily to the point stated in the application for payment. Payment will 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. Third party claims have been filed, 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. The Contract Sum has been reduced by Change Orders.
5. Damage has occurred to the City or another contractor.
6. The City determines that the Work will not be completed 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 fails 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 fails to submit timely PCO cost proposal breakdowns in accordance with the Contract Documents.
9. The City determines that Contractor fails 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, the City may make a written request for Contractor 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, maintenance and repair due to ordinary wear and tear caused by the City will be made at the City's expense. 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 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. Attached to Contractor's request for a Substantial Completion inspection shall be 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 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 15 working days from Contractor's notice, that lists all items that shall be corrected or completed 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. As a condition precedent to Substantial Completion, Contractor shall obtain a temporary certificate of occupancy from the City's Department of Building Inspection or other equivalent agency having jurisdiction over the Work in the event that such temporary occupancy permit or equivalent permit is necessary for the City to utilize the Work for the purposes for which it is intended.

E. 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.

F. 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 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 all Punch List / Final Completion items are completed. 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 which may become due as a result of Contractor's failure to achieve Final Completion within the time prescribed in Section 00 73 02. All such costs of the City and its consultants shall be deducted from amounts which 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 percent 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, the City will issue a written certificate of acceptance as required by section 6.22(K) of the San Francisco Administrative Code stating that the Work is acceptable, and Contractor may submit the final application for 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 Division 01 and containing such exemptions 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 which require lengthy fabrication periods. Payment will be made 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. Partial payment will not be made 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. No partial payment will be made 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 are either stored on the Site or at an off-Site location approved in advance and in writing by the City and in compliance with the requirements set forth in this Subparagraph.

d. Partial payment for materials or equipment stored off the Site shall be limited to the lesser of 75 percent 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 percent 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. No partial payment will be made 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. Not used.

d. Contractor shall store the materials and/or equipment in a bonded warehouse or facility approved by the City Representative. The materials and equipment shall be physically segregated from all other materials or equipment within the facility and shall be identified 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.

e. 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 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.

f. 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.

g. 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 or all such material or equipment.

h. 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.

i. Contractor shall deliver stored material and equipment to the Site. After delivery, if any inherent or acquired defects are discovered 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

A. Contractor shall purchase and maintain in force throughout the Contract Time such liability and other insurance as provided in Section 00 73 16.

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 form provided in Section 00 61 13:

1. a corporate surety bond, in a sum not less than 100 percent 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 percent 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 shall be legally authorized to engage in the business of furnishing surety bonds in the State of California. All sureties shall have either a current A.M. Best Rating 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), and shall 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 6.22E and 6.22F of the San Francisco 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 showing the name, place or residence, occupation, and per diem pay, of each person engaged in the execution of the Work, and every subcontractor who 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.

4. Should Contractor, or any Subcontractor who shall undertake the performance of any part of the Work herein required, fail or neglect to pay to the persons who shall perform 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, to the City back wages due plus the penal sum of \$50 per day for each laborer, worker or mechanic employed for each calendar day or portion thereof, while they shall be so employed and not paid the highest general prevailing rate of wages. The City, when certifying any payment which may become due under the terms of the Contract, shall deduct from the amount that would otherwise be due on such payment the amount of said forfeiture or forfeitures as so certified.

5. No person performing labor or rendering service in the performance of the Contract or a subcontract for the Work herein required shall 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. Any person working hours in addition to the above shall be compensated in accordance with the prevailing overtime standard and rates. Contractor or any Subcontractor who violates this provision shall forfeit to the City back wages due plus the penal sum of \$50 per day for each laborer, mechanic or artisan employed for each calendar day or portion thereof whereon such laborer, mechanic or artisan is compelled or permitted to work more than the days and hours specified herein.

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.

11.02 PAYROLLS

A. Certification of 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 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. The payroll records shall be certified under penalty of perjury and shall be submitted electronically to the City 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. A certified copy of an employee's payroll record shall be made available for inspection or furnished to such employee or his or her authorized representative upon request.

b. A certified copy of all payroll records shall be made available for inspection or furnished to a representative of the City upon request.

c. A certified copy of all payroll records shall be made 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. The public shall not be provided 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 City 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 5 working days, provide a notice of a 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, as a penalty to the City, forfeit \$25 for each day, or a portion thereof, of non-compliance, for each worker, until strict compliance is effected. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, such penalties shall be withheld 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 San Francisco 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 to comply with the requirements of the State Apprenticeship Program.

3. Section 1777.5 shall not apply to contracts of general contractors involving less than thirty thousand dollars (\$30,000) and less than twenty working days, or to contracts of specialty contractors not bidding for work through a general or prime contractor, involving less than two thousand dollars (\$2,000) or fewer than five working days.

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 for qualifying for payment from the City. The City reserves the right to demand such evidence upon request.

11.04 LABOR STANDARDS ENFORCEMENT

A. In accordance with Administrative Code section 6.22(E)(7) and section 6.24, Contractor further acknowledges and agrees as follows:

1. Contractor will cooperate fully with 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 and Chapter 6 of the San Francisco Administrative Code.

2. Contractor agrees that 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 prominently post at each job-site a sign informing employees that the project is subject to the City's prevailing wage requirements and that these requirements are enforced by the Labor Standards Enforcement Officer.

5. The Labor Standards Enforcement Officer may audit such records of Contractor as he or she reasonably deems necessary to determine compliance with the prevailing wage and other labor standards imposed by the Charter and this Chapter on public works contractors.

B. Under California Public Contract Code section 6109, Contractor or Subcontractors who 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. A debarred subcontractor may not receive any public money 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 has been 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 which result from Contractor's failure to comply with applicable health

and safety laws and regulations during performance of the Work.

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 introduces and/or discharges, spills or releases a hazardous material onto the site 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. Removal and disposal of the hazardous material, if deemed necessary by the City, will, at the discretion of the City, be performed either by the City at Contractor's expense or by Contractor, through a qualified remediation Subcontractor, at Contractor's expense. Under no circumstance shall 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 show 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. Removal and disposal of the hazardous material not shown in the Contract Documents or Available Project Information, if deemed necessary by the City, will be performed as directed by the City 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 shall 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 pursuant to 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 Railway, 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 3.19 of these General Conditions.

I. Pursuant to section 6705 of the California Labor Code, excavation for trenches 5 feet or more in depth shall not begin 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's shoring plan shall be submitted 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 shall 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, the action of the elements, the carelessness of its subcontractors, vandalism, graffiti, or any other cause whatsoever, until Final Completion of the Work. Should improper Work of any trade be covered by another contractor and damage or defects result, Contractor shall make the whole Work affected good to the satisfaction of the City and without expense to the City.

12.03 SAFETY PERMITS

A. A California industrial safety permit shall be obtained and paid for by Contractor if the following occurs:

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.

B. Contractor shall obtain and pay for all other required safety permits.

12.04 EMERGENCIES

A. 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, a Change Order or Unilateral Change Order will be issued 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 which could impact the budget and schedule for the Project.

C. 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 San Francisco Administrative Code Chapter 10. As set forth in subparagraph 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 subparagraph 13.04, below. The 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 per subparagraph 13.01(D), below. Disputed issues not timely raised and properly documented 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: (1) claims respecting penalties for forfeitures prescribed by statute or regulation which a government agency is specifically authorized to administer, settle, or determine; (2) claims respecting personal injury, death, reimbursement, or other compensation arising out of or resulting from personal injury or death; (3) claims by the City; or (4) claims respecting 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 (7) days of the event, activity, occurrence, or other cause giving rise to the potential Claim. For potential Claims that involve or relate to an extra, 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. Note that Contractor's failure to comply with required notice and submittal requirements for Change Order Requests (Article 6) or Differing Site Conditions (Paragraph 3.03) shall constitute grounds 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. Notices of Potential Claims submitted per Paragraph 3.03 (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. The 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. The Contract Claim shall be the Contractor's sole and exclusive administrative remedy for 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 (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 which 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 timely refer 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 13.02, above. The City Representative will respond, in writing, to Contractor's Notice of Potential Claim, submitted per Paragraph 13.02, 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. Contractor shall submit a Contract Claim within 15 days of receipt of the City Representative's written determination on the Notice of Potential Claim if Contractor disputes the City Representative's written determination and wishes to preserve its right to pursue the disputed issue. 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, shall submit with the Contract Claim 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 and/or Subcontractor's 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 shall execute the certification. Failure 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 base line 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 Delay 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 is 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 his/her 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, or his/her designee, shall issue such determination within 60 days of the date of the

request for review. The determination by the Department Head, or his/her designee, 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

A. 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 San Francisco Administrative Code Chapter 10 until the City issues a final administrative determination per subparagraph 13.03(F)(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 is 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 above 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 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 completely cure the Default 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. When 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 which 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, wear and tear.

E. If, after termination of the Contractor's right to proceed, it is determined 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. An adjustment shall be made as specified in Paragraph 7.02A for increases in the cost of performance of the Contract caused by suspension, delay or interruption. No adjustment shall be made to the extent:

1. that performance is, was or would have been so suspended, delayed or interrupted by another cause for which Contractor is responsible; or

2. that an equitable adjustment is denied under another provision of this Contract.

14.03 TERMINATION BY THE CITY FOR CONVENIENCE

A. Pursuant to section 6.22L of the San Francisco 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. Any such termination shall be effected by delivery to Contractor of a notice of termination specifying the extent to which performance of Work under the contract is terminated, and the date upon which such termination becomes effective.

B. After receipt of a notice of termination, and except as otherwise directed by the City, Contractor 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 right, 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. The proceeds of any such transfer or disposition shall be applied 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 such part of the Work as shall not have been terminated by the 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 shall submit to the City its termination claim, in the form and with the certification the City prescribes. Such termination claim shall be submitted 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 its 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 the 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 Contract shall be amended accordingly, and Contractor shall be paid the agreed amount. Nothing following, prescribing 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 which may be agreed upon to be paid to Contractor pursuant to this subparagraph 14.03D.

E. If Contractor and the City fail to agree, as subparagraph 14.03D provides, on the whole amount to be paid 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 shall 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 had it been completed, no profit shall be included or allowed, and an appropriate adjustment shall be made reducing the amount of the settlement to reflect the indicated loss.

2. The reasonable cost of the preservation and protection of property incurred as previously provided. The total sum to be paid to Contractor shall

not exceed the total Contract Sum as reduced by the amount of payments otherwise made and as further reduced by the Contract price of Work not terminated. Except for normal spoilage, and except to the extent that the City shall have otherwise expressly assumed the risk of loss, there shall be excluded from the amounts payable to Contractor the fair value, as determined by the City, of property which is destroyed, lost, stolen, or damaged, to the extent that it is undeliverable to the City, or to a buyer as previously provided.

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 its termination Claim within the time provided and has failed to request extension of such time, it shall have no 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 Contractor under this clause there shall be deducted:

1. all unliquidated advance or other payments on account theretofore made to Contractor, applicable to the terminated portion of this Contract;

2. any Claim which the City may have against Contractor in connection with this 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. If the termination hereunder be partial, before the settlement of the terminated portion of this Contract, Contractor may file with the City a request in writing for an equitable adjustment of the price or prices specified in the Contract relating to the continued portion of the Contract (the portion not terminated by the notice of termination). Such equitable adjustment as may be agreed upon shall be made in the specified price or prices. Nothing contained herein shall limit the right of the City and Contractor to agree upon the amount or amounts to be paid to the continued portion of the Contract when the Contract does not contain an established Contract price for the continued portion.

I. 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 San Francisco 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 (a) the validity of other provisions of this Agreement shall not be affected or impaired thereby, and (b) 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 2

- A. Amend Paragraph 2.02 with the following new subparagraphs:
 - “C. Contractor will be furnished half-size sets of Drawings and twelve Project Manuals at no cost. Contractor shall pay the reproduction costs of any additional sets required. Documents required for subsequent modifications, Change Orders, and Proposed Change Orders will be issued in the same manner.”

1.03 ARTICLE 3

- A. Amend Subparagraph 3.06 B with the following new sub-subparagraphs:
 - "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 00 73 00/APB.”

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:
- A. Electrical, plumbing and mechanical permits from the Department of Building Inspection, 1660 Mission Street, telephone (415) 558-6506.
 - 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, 1155 Market Street, 3rd Floor, San Francisco, telephone (415) 554-6201. Refer to Section 00 73 73 – Statutory and Other Requirements for excavation code requirements.
 - C. Permit to Operate (PTO) Boiler from the Department of Building Inspection, 1660 Mission Street, telephone (415) 558-6506.
 - D. Backflow Assembly Certification from SFWPS Water Quality Division, Cross-Connection Control Program, P.O. Box 730, Millbrae, CA 94030-0730, telephone (650) 652-3199
 - E. Hydrostatic Test Report for all underground and above ground piping.
 - F. Cal/OSHA permits.
 - G. Bay Area Air Quality Management District (BAAQMD) permits and notifications, 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.
 - H. County hazardous materials certificate of registration
 - I. Requirements listed in the Underground Service Alert (USA) North's California Excavation Manual
 - 1. Website: www.usanorth811.org
 - 2. Phone: 811 and/or 1-800-227-2600
 - 3. California Business and Professions Code Section 7110
 - 4. California Government Code 4216
 - 5. California Code of Regulations, Title 8, Subchapter 4. Construction Safety Orders, Article 6. Excavations
- 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

1.02 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.

1.03 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 150 consecutive calendar days.
- B. Final Completion shall occur no later than 60 consecutive calendar days after the date of Notice of Substantial Completion.

1.04 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 five hundred dollars (\$500.00) 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.

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 52 00, Article 4.03.A – back wages due plus \$50 per calendar day penalty for each worker not paid the highest general prevailing rate of wage; This is repeated in Article 11.01.B.4 of Section 00 72 00 General Conditions.
 2. Section 00 52 00, Article 4.03.B – back wages due plus \$50 per calendar day penalty for each worker not compensated in accordance with the prevailing overtime standard and rate; This is repeated in Article 11.01.B.5 of Section 00 72 00 (General Conditions).
 3. Section 00 72 00, Article 11.02.A.4 - \$25 per day penalty for each worker, 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.

4. 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.
5. Section 00 73 73, Article 3.06.B (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.

END OF SECTION

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 \$1,000,000.00 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, and completed operations.
 3. Commercial Automobile Liability insurance with limits not less than \$1,000,000.00 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. Environmental Pollution Liability: In the event that hazardous / contaminated material is discovered during the course of the work, and the Contractor or its subcontractors is required to perform abatement or disposal of such materials, then the Contractor, or its sub-contractor, who perform abatement of hazardous or contaminated materials removal shall maintain in force, throughout the term of this Contract, contractor's pollution liability insurance with limits not less than \$1,000,000 each occurrence combined single limit (true occurrence form), including coverages for on-site or off-site third party claims for bodily injury and property damage.

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 and/or subconsultants: SCA Environmental, Inc..
 2. Non-City Agencies: San Francisco Housing Authority
- 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 percent 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 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. 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 thirty (30) days advance written notice to the City of reduction or non-renewal of coverages or cancellation of coverages for any reason. 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 notification of receipt by the City of any such notice, shall file with the City a certificate of the required new or renewed policy at least 10 days before the effective date of such cancellation, change or expiration, 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 17

PDF DOCUMENT LIABILITY WAIVER AND RELEASE

1.01 SUMMARY

- A. The City may issue to Contractor Portable Document Format (PDF) files, which were prepared for the City for the Work of Project, in electronic format for the limited purpose of facilitating Contractor's design of the Work.

1.02 PROJECT CONDITIONS

- A. The City's issuance of Project PDF files to Contractor is not a representation of the completeness or accuracy of the information contained in the files.
- B. Because Contractor is required to perform all Work in accordance with the requirements of only the printed versions of the Bid Documents for Project as originally issued or modified in accordance with the Contract Documents, Contractor shall review the PDF files for the same accuracy and completeness as the original printed versions prior to Contractor's use and shall certify that all information contained in said Project PDF files accurately conforms to said Contract Documents.
- C. Contractor agrees not to transmit to third parties or otherwise reuse Project PDF files without prior written consent of the City. Unauthorized use of Project PDF files shall be at the sole liability of the user.
- D. Contractor hereby agrees to release the City from inaccuracies, incompleteness, or discrepancies between Project PDF files and said printed versions of the Contract Documents.
- E. Contractor shall be responsible for all damages resulting in whole or in part from inaccuracies, incompleteness, or discrepancies between said Project PDF files and said printed versions of the Contract Documents.

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 Policy
- 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 SECTIONS

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. 00 72 00 General Conditions

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/or 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 10 working days prior to commencement of Site work activities.
Note: Contractor's HASP will include plan for the Contractors Substance Abuse Policy (See Section 7.0, below)
- B. Resume for the Contractor designated Site Safety Representative (SSR)
- C. Completed Activity Hazard Analysis (AHA) or Job Hazard Analysis (JHA) submitted with the HASP using the AHA/JHA template for all significant activities and tasks with a high-risk potential, describing the job steps, hazards associated with each job step, and the controls used to remove or minimize the associated hazards
- D. Project-Specific Contractor Hazardous Communications Plan – Submitted to the City Representative 10 working days prior to commencement of Site work activities
- E. Air Monitoring Results/Reports – Submitted to the City Representative on request (if applicable)
- F. Monthly Field Project Report – Including man-hours, incident/injury and property damage reports – Submitted to the City Representative on a monthly basis within 5 days of the last working day of the month
- G. Heavy Equipment Inspection Forms – 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 approved modifications to the appended HASP – Submitted to the City Representative for review (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 on request (if applicable)
- L. Crane Inspection Certifications – (Daily, Annual, Quad crane inspections conducted by qualified individuals, whose names and qualifications are to be submitted to the City Representative on request (if applicable)
- M. Crane Operators certification – Submitted to the City Representative on request (if applicable)

- N. Applicable employee training and required medical approval documentation in compliance with Cal/OSHA standards
- O. 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 (accidents or 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 monitoring
 - 4. Complete summary of air monitoring accomplished during the project (if applicable)

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. Cal/OSHA Occupational Safety and Health Administration (OSHA) Regulations
 - 1. CCR Title 8 Standards (All)
 - 2. CCR Title 8 Tunnel Safety Orders (8403-8552)
- 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

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. 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.
- C. 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.
- D. Incident – any unplanned or unexpected event that results in personal injury, property damage, or environmental release.
- E. 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.
- F. Project Personal Protective Equipment (PPE) – ANSI Z87.1 safety glasses/shields; hard hat; work boots or protective footwear; gloves; hearing protection; and high visibility vest.

- G. 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 his/her ability to solve or resolve problems related to the subject matter, the work, or the project.
- H. Site Safety Representative – a Contractor’s employee(s) assigned to the project based on the contract requirements for the entire duration of construction activities.
- I. Work Areas – Refers to the perimeter of the work area for that specific Contractor.

5.0 GENERAL HEALTH AND SAFETY REQUIREMENTS

- A. 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 and complying with all applicable health and safety requirements in accordance with applicable laws, rules, and regulations.
- B. Contractor shall implement a zero incident philosophy on the project and establish a goal of zero accidents and zero injuries with work tasks designed to minimize or eliminate hazards to personnel, process, equipment, environment and the general public.
- C. Contractor shall develop and use Activity Safety Analyses (AHAs)/JSAs that address all elements of work required by Cal/OSHA to be undertaken by the Contractor.
- D. Contractor shall have a written Lockout/Tagout Procedure that complies with CCR Title 8, Section 3314. The written program will also be coordinated with and submitted to SFPUC facility personnel when applicable based on scope and location of work.
- E. Contractor shall have a written Permit-Required Confined Space Program that complies with CCR Title 8, Section 5156-5158. Contractor will provide City Representative with documentation of confined space entrant/attendant/supervisor/rescue training. Retrieval equipment and qualified rescue team shall be provided by each Contractor for all permit-required confined space entries.
- F. Contractor shall have a written Fall Protection Program to address work activities that occur at heights greater than six (6) feet (1.8 meters), which is communicated to all affected employees.
- 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.
- I. Only qualified operators may operate power equipment. Seat belts must be worn per manufacturer and Cal/OSHA standards.

- J. Safe lifting procedures for cranes and hoists must be developed and documented. 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.
- K. Preventative maintenance must be conducted on cranes and hoists in accordance with manufacturer's guidance and CAL/OSHA standards.
- L. Riding on hooks, headache balls, or slings of hoisting 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 standards. Rolling tower scaffolds must be locked while the scaffold is in use.
- O. Scaffold platforms more than 6 feet 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 used.
- P. No scaffold shall be erected, moved, dismantled, or altered except by trained and 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. Electrical equipment shall not be installed, repaired, or removed except by trained qualified electricians.
- T. Temporary lighting must be guarded.
- U. All 120-volt, single phase 15 and 20-ampere receptacle outlets on construction sites, which are not a part of the permanent wiring of the building or structure and are in use by employees, shall have approved Ground Fault Circuit Interruption (GFCI) for personnel protection.
- V. Extension cords must be at least 16-gauge heavy duty 3-wire with a UL approved three prong grounded plug.
- W. Gasoline and similar flammable liquids must be stored only in approved safety containers and in areas free of burning hazards.
- X. Open fires are strictly prohibited on the job site.
- Y. 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 area for at least 30 minutes after the hot work activity is completed.
- Z. The Contractor will utilize a hot-work permit system when working in/around a combustible environment.
- AA. Defective tools and equipment must be taken out of service and shall be properly repaired before reuse.
- BB. 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. The valve shall be closed on all empty cylinders.
- CC. When moving cylinders by crane or derrick, a cradle, boat, or suitable platform shall be used. Slings or hooks shall not be used.
- DD. 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.
- EE. 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.
 - FF. All moving equipment must be equipped with back-up alarms per manufacturer and Cal/OSHA standards.
 - GG. Job-made wooden ladders can be utilized on the job site if they meet Cal/OSHA requirements.
 - HH. Stepladders (A-Frame) must be fully open and cannot be used as straight/extension ladders.
 - II. Properly secure and ensure compliance with all ladder safety requirements per manufacturer and Cal/OSHA standards
 - JJ. Contractor is responsible for cleaning up and removing hazardous and non-hazardous waste generated on the job site.
 - KK. Each Contractor shall be responsible to maintain areas where it is performing work free of waste materials, debris, and rubbish.
 - LL. 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.
 - MM. Follow all safety standards for Tunnel work as specified in Cal/OSHA Title 8, Sections 8403-8552 regulations (if applicable).
 - NN. Alcoholic beverages, recreational drugs, and people under the influence of these substances are not permitted on the job site.
 - OO. Weapons and firearms are strictly prohibited on the job site.
 - PP. Heavy equipment operators are prohibited from utilizing music radios/headsets and cellular phones while operating equipment on the job site.
 - QQ. 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.
 - RR. Smoking is allowed in designated project areas based on the City Representative's approval.
 - SS. Horseplay and fighting is prohibited on the job site.
 - TT. Protect floor and roof openings by providing adequate barricades and secured covers. All covers must be painted with high visibility paint and shall be properly per Cal/OSHA standards.
 - UU. 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.
 - VV. All liquid hazardous materials must be properly contained in accordance with the Contract Documents, environmental and Cal/OSHA regulations.
 - WW. Park in designated Contractor-project authorized 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, subject to contract requirements, at least one individual trained in the OSHA Certified 30-Hour Construction Training Course, to be the Project 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. The SSR shall be readily available to consult with the City Representative at the site during all Project working hours and shall be available 24 hours a day, 7 days a week by telephone or other approved means.
- D. Contractor shall provide at least two individuals on the job site that have current CPR/First Aid training. Where Contractor provides Automatic External Defibrillators (AEDs), at least two individuals must be trained in its use.
- E. 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 is taking place. The names of these competent persons will be provided by the Contractor to the City Representative in writing prior to start of work activities.
- F. All Contractor employees and 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 POLICY

- 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 Project Substance Abuse Policy as described above and will submit a Contractor's Substance Abuse Policy to the City Representative.
- B. Contractor agrees to apply their policy to ensure compliance with the Project's Drug and Alcohol free environment goal.

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.
- D. Prior to working on the Site, Contractor's SSR must have completed a 30-hour OSHA Certified Construction Safety training session and 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.

9.0 MEETINGS

- A. The Contractor (at a minimum) shall conduct “toolbox” safety meetings per Cal/OSHA standards. The meeting must be documented using the Safety Meeting Attendance sheet 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 the project’s 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 hazardous work activities based on its two or three-week look-ahead project schedule.
- 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.
- 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 should be corrected immediately and documented.

11.0 SITE-SPECIFIC CONTRACTOR HEALTH AND SAFETY PLAN (HASP)

- A. Contractor shall be responsible for developing, implementing, and enforcing a site-specific Contractor HASP consistent with all CCR Title 8 or other applicable regulations, depending upon its scope of work.
- B. The Contractor shall prepare a site-specific Contractor Health and Safety Plan (HASP). Contractor HASP shall establish, in detail, the protocols 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. The Contractor HASP must be reviewed, and approved by signature, by the Contractor’s Project Manager and the SSR, and submitted to the City Representative as specified in Article 2.0 of this Document. Submission of the HASP to the City, or any review of the HASP by the City, shall not be construed as approval of the adequacy of the Contractor's SSR, the Contractor's HASP or any safety measures taken in or near the construction site.
- D. The Contractor HASP shall address site-specific safety and health requirements and procedures based upon site-specific project conditions.
- E. Contractor will develop a HASP that complies with requirements as set forth in this Section 00 73 19.

- F. The Contractor's HASP shall describe the emergency and first aid equipment to be provided by each Contractor and utilized for the project.
- G. An example project safety inspection form will 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 inspector.
- H. A sample Hot-Work Permit will be included in the Contractor's HASP and made available to the City Representative when requested.
- I. The formats for all safety forms and reports shall be developed by the Contractor and submitted as part of the Contractor HASP.
- J. 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.
- K. 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 and qualified personnel to be used on the project in support of job site safety requirements.
- L. 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.
- M. Contractor will include the following information in the HASP, as applicable:
 - 1. Confined Space Entry Plan (if applicable)
 - 2. Crane Critical Lift Plan (if applicable)
 - 3. Fall Protection and Prevention (FP&P) Plan (if applicable)
 - 4. Activity Hazard Analysis (AHA) /Job Hazard Analysis (JHA)
 - 5. Written Hazard Communication Plan for work place chemicals brought to the site must be established. Contractor shall also maintain a Material Safety Data Sheet (MSDS) for all products/chemicals brought to the project site.
 - 6. Emergency Response Plan
- N. 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. The modification shall be appended to the Contractor HASP. All on-site personnel shall be fully informed of the modifications, changes, and required actions prior to conducting any additional work activities.
- O. The Contractor's HASP shall describe the Contractor's plan for compliance with the Substance Abuse Policy as outlined in Article 7.0, above. The Contractor's plan for compliance with the Substance Abuse Policy will include but not be limited to the following:
 - 1. Contractor's method for ensuring that all employees working on the Project comply with the Drug and alcohol restrictions on the job site
 - 2. The name and telephone number of the Contractor's Designated Employer Representative for the Substance Abuse 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 Monthly Health and Safety Report submitted to the City Representative.

- B. Each piece of heavy equipment shall be inspected upon delivery to the Site and at the beginning of each work shift. Heavy equipment inspection documentation shall be submitted to the City Representative upon request.
- 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 written and a copy submitted to City Representative 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, who in turn immediately notifies the City Representative.
- B. Contractor will allow City Representative to participate and review all project incident 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, who in turn immediately notifies 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 designated representative
- F. Contractors must investigate 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. Final Report to be submitted to City Representative within 48 hours of incident.
- G. A Corrective Actions Report for the incident will be submitted by the Contractor to the City Representative. No work will continue in the area of incident until job site hazards and behaviors that caused the accident are corrected by the Contractor.

14.0 PERSONAL PROTECTIVE EQUIPMENT (PPE)

- A. Contractor shall define task-specific PPE requirements for all personnel in compliance with applicable laws, rules, and regulations.
- 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 project work areas.
 - 2. Appropriate eye and face protection that complies with ANSI Z87 shall be worn at all times.
 - 3. Safety glasses with side shields are required in the project work areas.
 - 4. Sensible and safe work clothing/shoes must be worn in the project work areas.
 - 5. No canvas/leather sneakers or sandals will be worn in the project work areas.

6. Appropriate hearing protection shall be worn in work areas where levels exceed established standards per Cal/OSHA standards.
 7. Suitable gloves must be worn to protect the hands from injury per Cal/OSHA standards.
 8. High visibility warning vests or other suitable garments marked with or made of reflection or high-visibility material must be worn at all times on the project.
- C. The Contractor's SSR shall establish additional appropriate levels of protection for each work task per Cal/OSHA standards.
- D. If respiratory protection is utilized, the Contractor will have a Respiratory Protection Program in compliance with Cal/OSHA requirements. The Contractor will also provide the following to the City Representative prior to beginning work utilizing respiratory protections:
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
- E. All respiratory equipment will be provided to the employees by the Contractor and properly inspected and maintained by the employees per Cal/OSHA regulations.
- F. 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. Welding screens must be used when welding operations have the ability to expose other employees or the general public per Cal/OSHA standards
- G. Safety harnesses must be worn per manufacturers and OSHA requirements in manlifts.
- H. 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.

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, including first aid kits and eyewash station per Cal/OSHA standards
 2. Spill control materials and equipment, including multi-purpose absorbent materials, poly bags, brooms and shovels and drums (if applicable)
 3. Fire extinguishers with a minimum rating of 2A-10B:C and as required by Cal/OSHA standards for scope of work requirements
 4. Emergency rescue equipment including SCBA and tripod/extraction equipment for confined space rescue; backboard/basket for transport of injured personnel, air horns/bull horns for emergency signaling and communications (if applicable)
 5. All Contractor's boats and vessels used on the project shall comply with the U.S. Coast Guard and Cal/OSHA and all applicable regulations for working in/around water and waterways

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 Project safety inspections, hours worked by Contractor, OSHA Recordable Incidents, Incident Rates, Lost Work Day Cases, Total Project Lost Work Days, Days Away from Work Rate, First Aid Cases, and Property Damage Incidents.
- C. Contractor shall allow City Representative 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 City Representative will issue a notice of non-compliance to ensure that observed immediately dangerous to life and health situation(s) and repeated failure to comply with health and safety requirements violations are corrected by the Contractor in a timely manner. The notice will document non-compliance and requires 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 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.
- C. 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 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 replacement of employee(s).

END OF SECTION

SECTION 00 73 40

SAN FRANCISCO HOUSING AUTHORITY RESIDENT HIRING REQUIREMENTS

1.01 SUMMARY

- A. This Section 00 73 40 incorporates applicable requirements of the San Francisco Housing Authority (SFHA) Resident Hiring Policy as set forth in Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 USC 1701u, as amended, and its accompanying regulations in 24 CFR part 135.34 Resolution 4967. 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. SFHA Resident Hiring: 25% of the total workforce (Resolution No. 4967)

1.02 DESCRIPTION

- A. To the maximum extent possible, Contractor agrees to actively recruit, hire and train residents of public housing for position vacancies or other employment opportunities within its organization. In compliance to this contract requirement, Contractor has agreed to submit the Authority its bi-weekly Certified Payroll/ Time Records to show that at least 25% of the project workforce hours is employed by the public housing residents.

1.03 HOUSING AND URBAN DEVELOPMENT ACT OF 1968, SECTION 3 RESOLUTION 4967 ADOPTED: 2/22/01

- A. RESOLUTION ESTABLISHING A GOAL OF HIRING RESIDENTS OF SAN FRANCISCO PUBLIC HOUSING TO CONSTITUTE AT LEAST TWENTY-FIVE PERCENT (25%) OF THE TOTAL WORKFORCE FOR CERTAIN TYPES OF CONTRACTS PERFORMED BY THE HOUSING AUTHORITY

WHEREAS, the San Francisco Housing Authority seeks to comply with and further the goals set forth in Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 USC 1701u, as amended, and its accompanying regulations in 24 CFR part 135 (hereinafter called Section 3) for resident hiring by contractors and subcontractors performing various types of work for the San Francisco Housing Authority; and,

WHEREAS, Section 3 regulations require beginning on October 1, 1996, all contractors in conjunction with their subcontractors on San Francisco Housing Authority projects hire eligible Section 3 residents to constitute a minimum of 30% of their aggregate new hires (full-time employees for permanent, temporary or seasonal employment) for each subsequent fiscal year; and,

WHEREAS, the San Francisco Housing Authority presently has a goal that Section 3 residents, hired in the priority order set forth in 24 CFR 135.34, will constitute a minimum of twenty-five percent (25%) of the total workforce (person-hours for all contractors and subcontractors) on all construction projects and construction related activities (e.g., architects and engineers); and,

WHEREAS, the San Francisco Housing Authority wishes to ensure that the maximum number of residents of public housing are employed in private and public sector jobs that afford them the ability to achieve their highest potential, gain vocational exposure, participate in the activities of public housing residential developments, and be employed by other contractors and subcontractors who provide services to the San Francisco Housing Authority; and,

WHEREAS, the San Francisco Housing Authority seeks to expand the Section 3 objectives to establish a goal that Section 3 residents, hired in the priority order set forth in 24 CFR 135.34, will constitute a minimum or twenty-five percent (25%) of the total workforce (person-hours for all contractors and subcontractors) on an contracts and purchases that are covered by Section 3 and by this resolution; and,

WHEREAS, the San Francisco Housing Authority defines all contracts and purchases covered by Section 3 and this resolution to include contracts and subcontracts for construction projects and construction related activities, e.g., architects and engineers; also included are personal and professional services such as legal counsel, consultants, security services, and other services. This resolution excludes contracts or purchases of supplies and materials unless the contract or purchase includes the installation of the supplies and materials; and

WHEREAS, the San Francisco Housing Authority wishes to assist Section 3 business concerns through preference in contracting opportunities or providing other economic opportunities; and

NOW, THEREFORE, BE IT RESOLVED BY THE COM: MISSION OF THE HOUSING AUTHORITY OF THE CITY AND COUNTY OF SAN FRANCISCO THAT:

1. The solicitation documents for construction contracts over \$25,000 and non-construction contracts over \$50,000 covered by Section 3 requirements and by this resolution that are awarded by the San Francisco Housing Authority shall include provisions that give effect to the below enumerated requirements:
 - a. Establish a goal requiring contractors, in conjunction with their subcontractors together, to hire residents of public housing such that residents constitute a minimum of twenty-five percent (25%) of the total workforce (calculated by person-hours) on all contracts and

purchases covered by Section 3 and by this resolution for contracts awarded by the San Francisco Housing Authority.

- b. In those instances where the size of the contract, scope of work covered by the contract, the specialized technical expertise required, the term and urgency of the contract (as determined on a case basis) and/or the contractor's worksite is located outside the nine Bay Area Counties makes reaching the above 25% goal impractical, the contractor may, with approval of the Contracting Officer for the San Francisco Housing Authority, satisfy the resident hiring requirement by providing appropriate training and development of technical skills in the contractor's office (e.g., accounting, architectural, consultant, engineering, legal, etc.).
- c. Contracts covered by this resolution are those issued by the San Francisco Housing Authority and include construction, reconstruction, conversion or rehabilitation of housing (including reduction and abatement of lead-based paint hazards), other public construction which includes buildings or improvements assisted with housing or community development assistance. This resolution goes beyond the requirements of Section 3 to include all contracts for professional and other services (e.g., architectural, consultant, engineering, legal, etc.) but excludes contracts for the purchase of supplies and materials unless these contracts include the installation of the supplies or materials. This resolution also covers construction on SFHA property even if the construction is not performed under contract with the SFHA and will extend to contractors and subcontractors engaged in such construction.
- d. A contractor who meets the goals set forth above is in compliance with this resolution. When the above goals are not met, the contractor must demonstrate to the Contracting Officer the reasons it is not feasible to meet the goal. The contractor's good faith efforts with regard to meeting the resident employment and Section 3 employment requirements under this resolution will be evaluated using Appendix to 24 CFR Part 135, Examples of Efforts to Offer Training and Employment Opportunities to Section 3 Residents. The evaluation will also include such factors as the size of the monetary value of the contract and the appropriateness of applying multiple criteria to meet the resident hiring requirements.
- e. Provide that a contractor's failure to realize the goal or to make a good faith effort as defined in Appendix to 24, CFR Part 135, Examples of Efforts to Offer Training and Employment Opportunities to Section 3 Residents, shall result in: (1) a cure notice issued when there is clear evidence the contractor will fail to meet the resident employment requirements before the completion of the contract (if not cured the

contractor will be terminated for default and assessed penalties up to the date of determination); (2) penalties in the amount of \$45.00 (forty-five dollars) multiplied by the number of hours constituting the shortfall for each week of the shortfall (e.g., if 3,000 person hours were expended during the course of a given week for the project, then of those 3,000 hours, 750 must be worked by residents; if residents worked only 650 hours; and the contractor showed no good faith efforts, then penalties would be due in the amount of \$45.00 multiplied by the 100-hour shortfall, or \$4500.00), assessed upon completion of the project and payable to the San Francisco Housing Authority upon demand, or set off from amounts owed for work on the project; or (3) breach of contract; and/or (4) termination of the contract. In addition, penalties will be regarded by the SFHA as poor past performance and may be grounds for determining a contractor to be nonresponsible and ineligible for award of future contracts.

2. The Executive Director will use Section 3 provisions to grant preference for contracting opportunities for Section 3 business concerns; provide other training and employment related opportunities to low income people; and provide other business related economic opportunities that expand Section 3 businesses, including micro-enterprises.
3. This resolution supercedes and replaces Determination and Order Number D-1 09 of Resolution Number 4604 adopted 4/19/97 and compliments Resolution Number 4886 adopted 4/27/00 and Resolution Number 4908 adopted 6/22/00.

END OF RESOLUTION

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. The SFPUC shall 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 LOST 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

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4.01 GENERAL **Error! Bookmark not defined.**

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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 http://www.amlegal.com/nxt/gateway.dll?f=templates&fn=default.htm&vid=amlegal:sanfrancisco_ca

ARTICLE 2 – REQUIREMENTS FOR ALL CITY-ADMINISTERED CONTRACTS

2.01 CONFLICT OF INTEREST

By executing the Agreement Form (Section 00 52 00), Contractor certifies that it does not know of any fact which constitutes a violation of Section 15.103 of the City's Charter; Article III, Chapter 2 of City's Campaign and Governmental Conduct Code; or Section 87100 *et seq.* or Section 1090 *et seq.* of the California Government Code of the State of California, and further agrees promptly to notify the City if it becomes aware of any such fact during the term of this Contract.

2.02 NONDISCRIMINATION REQUIREMENTS

- A. **Incorporation of Administrative Code Chapters 12B and 12C.** The provisions of Chapters 12B and 12C of the San Francisco 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 San Francisco 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 San Francisco 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 San Francisco 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 San Francisco 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 San Francisco 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 San Francisco Administrative Code Chapter 12.G, 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 12.G, 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 Form (Section 00 52 00), Contractor acknowledges that it is familiar with section 1.126 of the City's Campaign and Governmental Conduct Code, which prohibits any person who contracts with 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, or for a grant, loan or loan guarantee, from making any campaign contribution to (1) an individual holding a City elective office if the contract must be approved by the individual, a board on which that individual serves, or the board of a state agency on which an appointee of that individual serves, (2) a candidate for the office held by such individual, or (3) a committee controlled by such individual, at any time from the commencement of negotiations for the contract until the later of either the termination of negotiations for such contract or six months after the date the contract is approved. 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 20 percent in Contractor; any subcontractor listed in the bid or contract; and any committee that is sponsored or controlled by Contractor. Contractor must inform each such person of the limitation on contributions imposed by Section 1.126 and provide the names of the persons required to be informed to City.

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 San Francisco 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 San Francisco Administrative Code the following requirements are made part of the Contract:

1. Chapters 12B and 14B of the San Francisco 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 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 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 percent, Contractor shall comply with all LBE subcontracting provisions of this Section with respect to the Change Order.
8. 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.
9. 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.
10. Contractor shall submit CMD Contract Performance Forms (CMD Forms 7, 8, 9, 10 and 11) as set forth in CMD Attachment 1, article 1.03.
11. Contractor shall comply with the employment and nondiscrimination provisions as set forth in Part IV of 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, (San Francisco 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 San Francisco 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

[Applies to contracts/agreements executed or amended in any manner on or after August 13, 2014.]

- 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 San Francisco 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 <http://sfgov.org>. 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, and shall apply only to applicants and employees who would be or are performing work in furtherance of this Agreement.
- 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 subsection XX(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.

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. Contractor shall comply with the following Hazardous Materials Abatement Specifications by SCA Environmental titled:

HAZARDOUS MATERIALS ABATEMENT SPECIFICATIONS SAN
FRANCISCO HOUSING AUTHORITY POTRERO TERRACE HOUSING
DEVELOPMENT SAN FRANCISCO, CALIFORNIA SCA PROJECT NO.: B-
10645, MARCH 24, 2010

HAZARDOUS MATERIALS ABATEMENT SPECIFICATIONS SAN
FRANCISCO HOUSING AUTHORITY POTRERO TERRACE HOUSING
DEVELOPMENT SAN FRANCISCO, CALIFORNIA SCA PROJECT NO.: B-
10796, OCTOBER 11, 2012

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. 274-72), 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 dewatering 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 3 working 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, 1155 Market Street, 3rd Floor, San Francisco, CA 94103.

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 Ordinance #175-91, article 21, sections 1100 to 1107 of the San Francisco Municipal Code (Public Works Code), restricting the use of potable water for soil compaction and dust control activities, to the extent not directly in conflict with any applicable federal, state, and local law.
- B. Secondary effluent is available at no cost to Contractor from the Southeast Water Pollution Control Plant at 750 Phelps Street, San Francisco, from 8:00 a.m. to 5:00 p.m. on weekdays and Saturdays.
 1. Contractor shall be responsible for handling and trucking of secondary effluent at no cost to the City.
 2. A permit is required to obtain reclaimed water from the SFPUC Wastewater Enterprise. The Contractor will be responsible for the handling and transportation of reclaimed water as well as any permit and discharge fees.
- C. Should Contractor require use of potable water for soil compaction or dust control activities, Contractor shall apply for and obtain an exemption pursuant to Ordinance #175-91, article 21, prior to its use.
 1. Applications for an exemption shall be sent to:

Department of Public Health
Environmental Health Section
1390 Market Street, Room 910
San Francisco, CA 94102
Telephone (415) 252-3945
 2. Pursuant to Ordinance #175-91, permission for said use of potable water may be granted by the General Manager of the Water Enterprise.
- D. Potable Water:
 1. Contractor shall arrange with the Water Enterprise at (415) 923-2520 to provide potable water obtained by connecting to City water systems.
 2. Water may also be available from the fire hydrants located in the streets. To use fire hydrants for potable water, Contractor must complete an application and obtain permission from the Water Enterprise (415) 923-2488.

3. Contractor shall pay the costs of permit fees, connection fees, meters, and all water usage furnished by the Water Enterprise under the water service account established above. The City will not reimburse the Contractor for these costs.

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 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 sewerage 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 <http://www.sfwater.org/index.aspx?page=235>. 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 3.20 of the General Conditions (Section 00 72 00).

3.07 CLEAN CONSTRUCTION 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 San Francisco Administrative Code. The provisions of Section 6.25 are incorporated herein by reference and made a part of this Agreement as though fully set forth.
- B. Contractor may seek waivers from the Clean Construction requirements as set forth in Section 6.25(b)(3) of the Administrative 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, 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 \$100.00 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.

3.08 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 (NOT USED)

END OF SECTION

APPENDIX A: NOISE CONTROL ORDINANCE

Police Code Section 2907(b) – It shall be unlawful for any person to operate any powered construction equipment, regardless of age or date of acquisition, if such equipment emits noise at a level in excess of 80 dBA when measured at a distance of one hundred feet from such equipment, or equivalent sound level at some other convenient distance;

Police Code Section 2907(c) – Requirements of Section 2907(b) need not be applied 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 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 as best accomplishing maximum noise attenuation. In the absence of manufacturer's recommendation, the Director of Public Works may prescribe such means of accomplishing maximum noise attenuation as he deems to be in the public interest.

Police Code Section 2901.12 – Powered construction equipment includes 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 on 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 pre-empted for regulation by State or Federal law.

Police Code Section 2908 – It shall be unlawful for any person, including employees and agents of the city and county of San Francisco, between the hours of 8:00 p.m. any day and 7:00 a.m.. of the following day to erect, construct, demolish, excavate, alter or repair any building or structure, if the noise level created thereby is in excess of the ambient background noise level by 5 dBA at the nearest property line, unless a special permit therefor has been applied for and granted by the Director of Public Works. In granting such special permit the Director of Public Works 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 interferences 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 time, if the work will abate or prevent hazard to life or property, if the proposed night work is in the general public interest; and he shall prescribe such conditions, working times, types of construction equipment to be used, and permissible noise emissions, as he deems to be required in the public interest.

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:

<u>Pollutant Parameter</u>	<u>Limits</u>
(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:

<u>Pollutant Parameter</u>	<u>Limits</u>
(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 104° (40°C) 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: SAN FRANCISCO DEPARTMENT OF PUBLIC WORKS ORDER 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:

<u>Pollutant/Pollutant Parameter</u>	<u>Limit (mg/l)</u>
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.

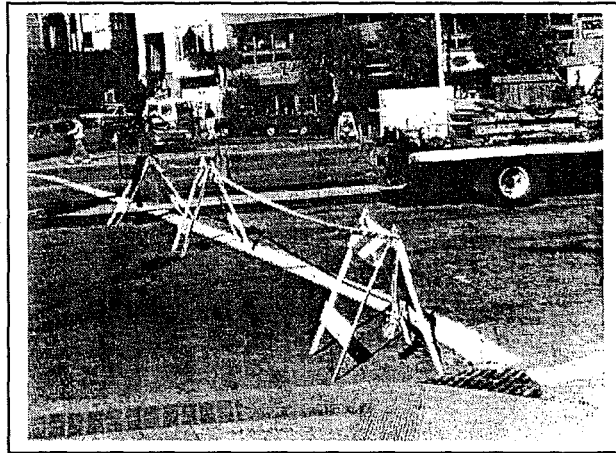
NOTE: With the unique nature of each project, certain issues may arise which have not been covered in the above guidelines Each project will have to be reviewed on a case by case basis, to ensure that complete, safe, usable and accessible paths-of-travel are maintained during construction.

EXAMPLES OF CORRECT AND INCORRECT BARRICADING METHODS

Photographs A through F depict several examples of correct and incorrect barricading methods.

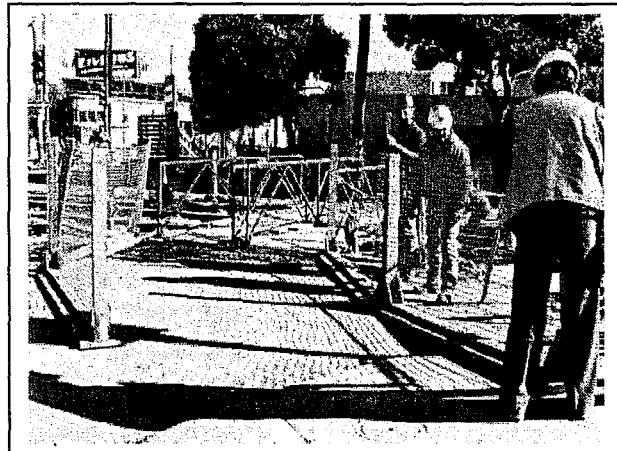
A. Incorrect Barricading Method

- "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



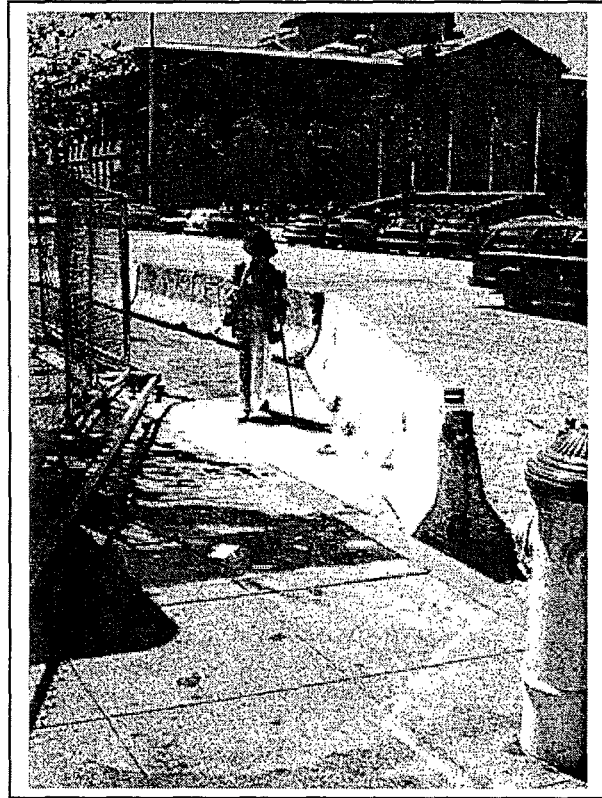
B. Correct Barricading Method

- 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).



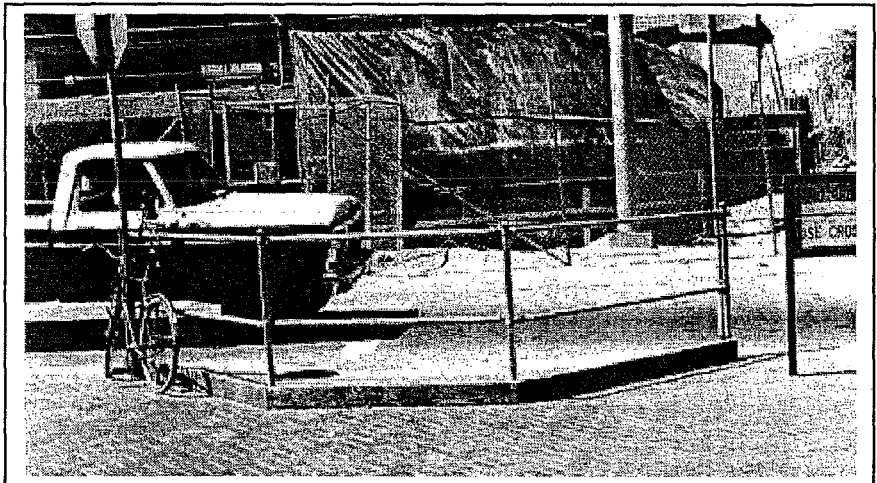
C. Correct Barricading Method

- 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)



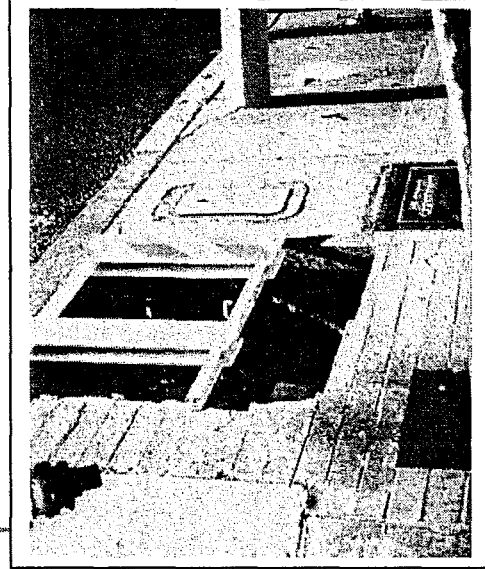
D. Correct Barricading Method (Curb ramp leading into a closed crosswalk)

- 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.

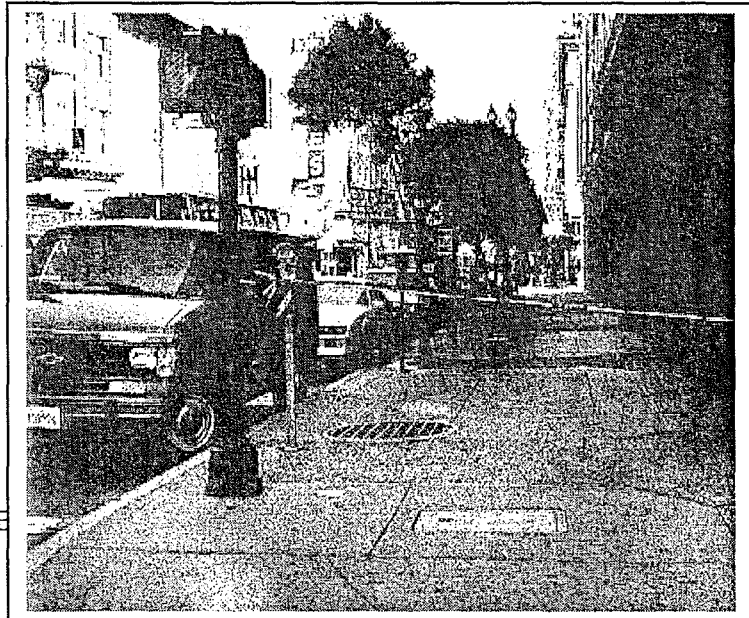


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SECTION 01 11 00

SUMMARY OF WORK

PART 1 – GENERAL

1.01 INVESTIGATION PRIOR TO BIDDING

- A. The Contractor shall be familiar with the Contract Drawings and the following Reports available at the San Francisco Public Utilities Commission, Power Enterprise – Energy Efficiency Services, 525 Golden Gate Avenue, 7th Floor, San Francisco, CA 94102:

ACIES Engineering Contract Drawings Titled:

“CAL 1-2, POTRERO TERRACE 1095 CONNECTICUT STREET SAN FRANCISCO, CA 94107 BUILDING ENERGY IMPROVEMENT”

SCA Environmental, Inc. Reports Titled:

“Hazardous Materials Abatement Specifications San Francisco Hosuing Authority Potrero Terrace Housing Development San Francisco, California; SCA Project No.: B-10796, October 11, 2012”

“Hazardous Materials Abatement Specifications San Francisco Hosuing Authority Potrero Terrace Housing Development San Francisco, California; SCA Project No.: B-10645, March 24, 2014”

- B. A site visit and inspection of the existing site is required of all bidders. Taking into full consideration the sequence of construction, the Contractor shall make proper allowances in the schedule to complete the work within the allotted time, including incidental work not shown on the Contract Drawings as part of the scope of work, for the following:
- C. Domestic hot water service shall remain in service during the course of the project except for scheduled shut-downs to cross connect the new system. Interruption in domestic hot water service shall not exceed 8 hours per shut down. Two consecutive scheduled shut-downs will not be permitted.

- D. Scheduled shut-down of domestic hot water shall be reported no later than 48 hours (weekday) to the SFHA Project Manager and the SFPUC Project Manager. Contractor shall proceed with shut-down only upon approval.

1.02 SCOPE OF WORK OR PROJECT DESCRIPTION

- A. The objective of this project is to replace the hydronic heating boiler system, domestic hot water boiler system, and the associated equipment and distribution piping serving these two systems to two multifamily housing buildings located within the San Francisco Housing Authority (SFHA) Potrero Terrace: Building E-4 (900-914 Connecticut Street) and Building G-6 (918-946 Connecticut Street). In summary, the Scope of Work shall be in compliance with the contract drawings by ACIES Engineering titled "Cal 1-2, Potrero Terrace 1095 Connecticut Street San Francisco, CA 94107 Building Energy Improvement" to include but not limited to the following:
1. Provide all applicable permits as required by all local, state, and federal agencies.
 2. Provide Permits to Operate (PTO) as required by the SFDBI for the new boilers and water heaters as applicable for one year of service.
 3. Certify Backflow Preventer with the San Francisco cross-connection control program.
 4. Comply with all regulatory requirements by the Bay Area Air Quality Management District (BAAQMD).
 5. Comply with the Hazardous Materials Abatement Specifications prepared by SCA Environmental, Inc.
 6. Comply with the codes enforced by the San Francisco Department of Building Inspection (SFDBI) to include but not limited to the California Code of Regulations Title 24.
 7. Comply with the San Francisco Housing Authority Resident Hiring goals. Provide certified payroll reports (hard copies only) for resident hire personnel.
 8. Comply with the City and County of San Francisco Office of Labor Standards Enforcement as it pertains to prevailing wages. Provide certified payroll reports through Elations Systems.
 9. Provide security to prevent theft and unauthorized access to work zone.
 10. Replace six waste stack sewer drain pipes in Building G-6 crawl space.

11. Maintain domestic hot water services throughout the project except for pre-scheduled shut-downs not exceeding 8 hours.
12. Mechanically and electrically disconnect and demolish two (2) existing hydronic heating boilers, one (1) domestic hot water boiler, one (1) domestic hot water storage tank, expansion tanks, pumps, air separator, and all associated equipment, piping, and materials.
13. Supply and install one (1) new hydronic heating boiler, three (3) domestic hot water heaters, and the associated equipment, piping, flue stacks, and materials in the Building G-6 boiler room for a fully operational system.
14. Install new hydronic heating supply/return and domestic hot water supply/return pre-insulated copper pipes underground to interconnect hydronic heating and domestic hot water to Building E-4 served by the Building G-6 boiler room. Pipe product to be Perma-Pipe or an approved equal. Installation of pipe product to be in accordance with Perma-Pipe installation manuals or other pre-approved installation manuals. Provide all excavation and trenching services for underground pipes. Provide all hardscaping and landscaping services to match existing conditions. Existing pipe lines to be capped and abandoned in place. Excavation and trenching work to comply with USA North's California Excavation Manual, California Business and Professions Code Section 7110, California Government Code 4216, and the California Code of Regulations Title 8 Article 6. Excavations.
15. Install new hydronic heating and domestic hot water horizontal distribution pipe runs under Building E-4 and Building G-6 crawl spaces. Connect new distribution piping to underground piping and boiler room heating systems. Cap the existing underground piping at points of disconnection.
16. Insulate all new piping per the 2013 Title 24 Part 6 California Energy Code specifications.
17. Hydrostatic Test all new underground piping, above ground piping, and equipment. Provide Hydrostatic Test Reports signed and witnessed.
18. Install hydronic heating controls per the San Francisco Housing Code chapter 7, Mechanical Requirements, Section 701, Heating and Ventilation, in compliance with the City and County of San Francisco's Heat Ordinance for Apartments and Residential Hotels in San Francisco.
19. Switch over both buildings to new heating systems.
20. Provide equipment and system start-up services for fully operational systems.

21. Provide combustion analyzer print-outs showing that gas burning equipment is in compliance with the BAAQMD and performing at optimum efficiency.
 22. Provide training to SFHA facilities engineering staff.
 23. Provide all operation and maintenance (O&M) manuals, warranties, and associated close-out documents per the contract documents.
- 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.

1.03 MISCELLANEOUS WORK COMMON TO THE ENTIRE CONTRACT

- A. Permits and notifications as required by the San Francisco Department of Building Inspection (SFDBI), the Bay Area Air Quality Management District (BAAQMD), and CalOSHA. Excavation and trenching work to comply with USA North's California Excavation Manual, California Business and Professions Code Section 7110, California Government Code 4216, and the California Code of Regulations Title 8 Article 6. Excavations. Field testing of systems; hydrostatic testing of underground and above ground piping systems to include providing documented hydrostatic test reports; equipment start-up, testing, and tuning to include combustion tuning in compliance with the BAAQMD; training of on-site facilities engineering staff; 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. Contractor shall provide security fences around work zone specifically in the excavation and trenching work zone and prohibit the public to include SFHA residents from entering this work zone. Contractor shall assume all responsibility pertaining to security to prohibit theft and the loss of labor hours of materials installed.
- C. Contractor shall provide proper signage indicating that the work area is a Construction Zone and is for Authorized Personnel Only and to Keep Out and any other signage that would protect the public and local residents from any harm or injury.
- D. Contractor shall perform daily work zone and staging area housekeeping to maintain a safe and clean work environment.
- E. 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

- A. SFHA will provide site access to the work area.

1.05 DESIGN (AND OTHER) SERVICES TO BE PROVIDED BY THE CONTRACTOR

- A. Contractor shall use good judgment in laying-out equipment and associated accessories, and both above ground and below ground pipes such that they have a uniform, level, and professional appearance per standard trade practices and industry standards while meeting all local, state, and federal codes and regulatory requirements.

1.06 CONSTRUCTION SCHEDULING AND SEQUENCING

- A. Contractor shall complete all work associated with the Project within 150 calendar days from NTP. Contractor shall maintain the Domestic Hot Water system in operation throughout the duration of the project except for scheduled shut downs. Buildings shall not be without Domestic Hot Water for more than 8 hours per scheduled shut down. Two consecutive scheduled shut-downs will not be permitted.

1.07 MISCELLANEOUS INSTRUCTIONS TO THE CONTRACTOR

- A. The Contractor shall note that the Excavation Code, Article 2.04 amended December 16, 2010, and the Order No. 176,707: "Regulations for Excavating and Restoring Streets in San Francisco," approved on March 26, 2007, takes precedence over the DPW Bureau of Engineering 1986 Standard Specifications and 1987 Standard Plans when differences arise. Otherwise, the Standard Specifications and Standard Plans shall govern the excavation and restoration of City streets.
- B. 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.
- C. 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.

- D. 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.
- E. The Contractor's attention is directed to the fact that two large trees are located in the vicinity of the project work zone. Contractor to take precaution to protect and not to disturb these trees in compliance with the City and County of San Francisco's DPW-Bureau of Urban Forestry.
- F. 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.
- G. 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.
- H. In the event that the City Representative identifies and/or places the Contractor on notice of work activity that fails to comply with applicable specifications and/or with applicable regulations, the City Representative shall stop the work and shall require the Contractor to remove the violating equipment and operator(s) from the work site forthwith. Any equipment and operator(s) so removed shall be barred from performing any work in any capacity on the subject project for the duration of the project. The City Representative shall also report any such violation to Cal OSHA. The Contractor shall be barred from filing a claim arising from a work stoppage caused by the Contractor's failure to comply with applicable regulations referenced above and/or with this section.
- I. SFMTA (Muni) service must be maintained at all times.
- J. 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 20/APB (Appendix B: Utility Crossings Specifications).]

1.08 CONTRACTOR'S USE OF SITE

- 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. 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 without the approval of the City and the SFHA Representative. The Contractor shall submit plans showing staging and parking areas, 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.

- B. Additional Staging and Storage: Contractor shall be responsible for providing any additional staging and storage areas outside the boundaries of the Building E-4 & G-6 work zone. 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.
- C. 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.
- D. Security of Contractor's Work Area: Security of Contractor's work areas and its property, equipment, construction materials, the labor hours invested in installing such equipment and 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

- 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 SFHA, 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

- 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

- A. Demolition of Existing boilers and associated equipment and material
 - 1. At the request of the SFHA facilities engineering staff, existing boilers and associated equipment shall be offered to them before the equipment is removed from the premises to be recycled and/or disposed. If the SFHA facilities engineering staff decline to accept such equipment, the contractor shall be responsible for the proper disposal of such equipment
 - 2. Landscape and Hardscape Restoration Work:
 - a. To match existing conditions, furnish and install landscape, concrete pathway, curb, landscape grading, and irrigation systems, as a result from excavation and trenching work.

1.12 HAZARDOUS MATERIALS MANAGEMENT

- A. Contractor shall fully comply with all applicable hazmat removal requirements set forth in Section 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 9.3.M of the Section 00 72 00 General Conditions.

1.14 PROJECT-SPECIFIC SAFETY AND HEALTH REQUIREMENTS

- A. SITE-SPECIFIC CONTRACTOR HEALTH AND SAFETY PLAN (HASP)
 - 1. CONTRACTOR shall be responsible for developing, implementing, and enforcing a site-specific CONTRACTOR HASP consistent with all CCR Title 8 or other applicable regulations, depending upon their scope of work.

2. The CONTRACTOR shall prepare a site-specific CONTRACTOR Health and Safety Plan (HASP). CONTRACTOR HASP shall establish, in detail, the protocols 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.
3. The CONTRACTOR HASP must be reviewed, and approved by signature, by the CONTRACTOR's Project Manager and the SSR, and submitted to the City Representative Submission of the HASP to the City, or any review of the HASP by the City, shall not be construed as approval of the adequacy of the Contractor's SSR, the Contractor's HASP or any safety measures taken in or near the construction site.
4. The CONTRACTOR HASP shall address site-specific safety and health requirements and procedures based upon site-specific project conditions.
5. CONTRACTOR will develop a HASP that complies with requirements as set forth in this document.
6. The CONTRACTOR's HASP shall describe the emergency and first aid equipment to be provided by each CONTRACTOR and utilized for the project.
7. An Example project safety inspection form will 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 inspector.
8. A sample Hot-Work Permit will be included in the CONTRACTOR's HASP and made available to the CITY REPRESENTATIVE when requested.
9. The formats for all safety forms and reports shall be developed by the CONTRACTOR and submitted as part of the CONTRACTOR HASP.
10. 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.
11. 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 and qualified personnel to be used on the project in support of job site safety requirements.

12. 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.
13. CONTRACTOR will include the following information in the HASP, as applicable:
 - a. Confined Space Entry Plan (If applicable)
 - b. Crane Critical Lift Plan (If applicable)
 - c. Fall Protection and Prevention (FP&P) Plan (If applicable)
 - d. Activity Hazard Analysis (AHA) /Job Hazard Analysis (JHA)
 - e. Written Hazard Communication Plan for work place chemicals brought to the site must be established. CONTRACTOR shall also maintain a Material Safety Data Sheet (MSDS) for all products/chemicals brought to the project site.
 - f. Emergency Response Plan.
14. 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. The modification shall be appended to the CONTRACTOR HASP. All on-site personnel shall be fully informed of the modifications, changes and required actions prior to conducting any additional work activities.
15. The Contractor's HASP shall describe the Contractor's plan for compliance with the Substance Abuse Policy as outlined in Section 7 of 00814. The Contractor's plan for compliance with the Substance Abuse Policy will include but not be limited to the following:
 - a. Contractor's method for ensuring that all employees working on the Project comply with the Drug and alcohol restrictions on the job site
 - b. The name and telephone number of the Contractor's Designated Employer Representative for the Substance Abuse Policy.

PART 2 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 14 13

ACCESS TO SITE

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. All contractor's employees will be required to obtain and wear security badges at all San Francisco Housing Authority (SFHA) sites. The badges can be obtained from the Human Resources Department at 440 Turk Street, San Francisco, CA 94124. The SFHA will charge a minimal fee of \$5.00 per badge. Badges must be obtained prior to commencing work on any SFHA site.
- B. Contractor shall observe all street parking laws.
- C. Contractors will be working in a multifamily housing development. Contractors to observe the rights of the tenants and SFHA staff and management. Contractors to limit interaction with SFHA tenants as necessary. Any hostile incidents shall be reported to the SFHA and SFPUC Project Managers.
- D. The project requires a manned established security/controlled access checkpoint as shown on the drawings, which is to be manned between the hours of (24 Hours a day to include weekdays, weekends, and holidays) by the Contractor at the Contractor's expense.

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.

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 the San Francisco Housing Authority, Potrero Terrace, Building G-6: 918-946 Connecticut Street, San Francisco, CA 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 may be either additive or deductive, 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 (additive/deductive) 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

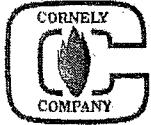
- by the City Representative, make available for checking all surveying and measurement notes and logbooks complete with benchmarks and monuments used.
2. Progress payments will be made on a monthly basis and no mid-monthly payments will be made regardless of the value of the work and material incorporated 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 (NOT USED)

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.01 SCHEDULE OF BID PRICES (ALL ITEMS INCLUDE ALL NECESSARY LABOR, MATERIALS – EXCEPT AS OTHERWISE SPECIFIED – AND INCIDENTAL WORK TO COMPLETE THE ITEM):



CORNELY COMPANY

Mechanical Equipment Contractors & Distributors

Lic. No. 171203

SFPUC – Power Services

July 29, 2014 Page 1 of 3

Energy Efficiency Services

525 Golden Gate Avenue, 7th Floor

San Francisco California, 94103

Attention, Matthew Greco

Regarding, San Francisco Housing Authority Potrero Terrace Boiler Replacement Project

Cornely Company is pleased to quote the following services,

Provide labor and material to replace the hydronic heating boiler system, domestic hot water boiler system, and the associated equipment and distribution piping serving these two systems to two multifamily housing buildings located within the San Francisco Housing Authority (SFHA) Potrero Terrace: Building E-4 (900-914 Connecticut Street) and Building G-6 (918-946 Connecticut Street). In summary, the Scope of Work shall be in compliance with the contract drawings by ACIES Engineering titled "Cal 1-2, Potrero Terrace 1095 Connecticut Street San Francisco, CA 94107 Building Energy Improvement" to include but not limited to the following:

1. Provide a Payment and Performance Bond.
2. Provide all applicable permits as required by all local, state, and federal agencies.
3. Provide Permits to Operate (PTO) as required by the SFDBI for the new boilers and water heaters as applicable for one year of service.
4. Certify Backflow Preventer with the San Francisco cross-connection control program.
5. Comply with all regulatory requirements by the Bay Area Air Quality Management District (BAAQMD).
6. Comply with the Hazardous Materials Abatement Specifications prepared by SCA Environmental, Inc.
7. Comply with the codes enforced by the San Francisco Department of Building Inspection (SFDBI) to include but not limited to the California Code of Regulations Title 24.
8. Comply with the San Francisco Housing Authority Resident Hiring goals. Provide certified payroll reports (hard copies only) for resident hire personnel.

9. Comply with the City and County of San Francisco Office of Labor Standards Enforcement as it pertains to prevailing wages. Provide certified payroll reports through Elations Systems.
10. Provide security to prevent theft and unauthorized access to work zone.
11. Replace six waste stack sewer drain pipes in Building G-6 crawl space.
12. Maintain domestic hot water services throughout the project except for pre-scheduled shut-downs not exceeding 8 hours.
13. Mechanically and electrically disconnect and demolish two (2) existing hydronic heating boilers, one (1) domestic hot water boiler, one (1) domestic hot water storage tank, expansion tanks, pumps, air separator, and all associated equipment, piping, and materials.
14. Supply and install one (1) new hydronic heating boiler, three (3) domestic hot water heaters, and the associated equipment, piping, flue stacks, and materials in the Building G-6 boiler room for a fully operational system.
15. Install new hydronic heating supply/return and domestic hot water supply/return pre-insulated copper pipes underground to interconnect hydronic heating and domestic hot water to Building E-4 served by the Building G-6 boiler room. Pipe product to be Perma-Pipe or an approved equal. Installation of pipe product to be in accordance with Perma-Pipe installation manuals or other pre-approved installation manuals. Provide all excavation and trenching services for underground pipes. Provide all hardscaping and landscaping services to match existing conditions. Existing pipe lines to be capped and abandoned in place. Excavation and trenching work to comply with USA North's California Excavation Manual, California Business and Professions Code Section 7110, California Government Code 4216, and the California Code of Regulations Title 8 Article 6. Excavations.
16. Install new hydronic heating and domestic hot water horizontal distribution pipe runs under Building E-4 and Building G-6 crawl spaces. Connect new distribution piping to underground piping and boiler room heating systems. Cap the existing underground piping at points of disconnection.
17. Insulate all new piping per the 2013 Title 24 Part 6 California Energy Code specifications.
18. Hydrostatic Test all new underground piping, above ground piping, and equipment. Provide Hydrostatic Test Reports signed and witnessed.
19. Install hydronic heating controls per the San Francisco Housing Code chapter 7, Mechanical Requirements, Section 701, Heating and Ventilation, in compliance with the City and County of San Francisco's Heat Ordinance for Apartments and Residential Hotels in San Francisco.

20. Switch over both buildings to new heating systems.
21. Provide equipment and system start-up services for fully operational systems.
22. Provide combustion analyzer print-outs showing that gas burning equipment is in compliance with the BAAQMD and performing at optimum efficiency.
23. Provide training to SFHA facilities engineering staff.
24. Provide all operation and maintenance (O&M) manuals, warranties, and associated close-out documents per the contract documents.

Lump Sum Price for this service would be \$398,800.00 good for 60 days from today, Cornely Companies standard insurance applies.

Thank you,

Kevin J. Grand
Cornely Company

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 1.02.C and 1.02.D 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 33 00 – Submittal Procedures
 - 6. Section 01 32 16 – Construction Progress Schedule
 - 7. Section 01 71 33 – Protection of Adjacent Construction
 - 8. 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.
- 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 Section 01 41 00 that are required prior to Work beginning on the site
 16. Providing Contractor's field office(s) and, if required, provide and maintain 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 offices 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” shall be the fixed amount shown in the Schedule of Bid Prices.
- D. Items of Demobilization work not completed by the Contractor or not satisfactorily completed will have one and one half times their value (as determined by the City Representative) withheld from the final payment.

1.04 PROJECT-SPECIFIC REQUIREMENTS (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 3.11
 - 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.

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- 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 (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 (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 75 60 – Testing Coordination and Start-Up Testing
 - 5. 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 CONTRACTORS 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 "Three 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 including 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.
 - a. All attachments to the RFI transmittal form 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. 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 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 PROJECT-SPECIFIC REQUIREMENTS (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 | 1.2 |
| 2. | Site Mobilization Conference | 1.3 |
| 3. | Progress Meetings | 1.4 |
| 4. | Pre-Installation Conferences | 1.5 |
| 5. | Project-Specific Requirements | 1.6 |

B. Related Documents and Sections:

1. Section 00 73 19 – Health and Safety Requirements
2. Section 01 75 60 – Testing Coordination and Start-Up Testing
3. 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 (NOT USED)

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

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
 - 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
 - 6. Section 01 33 00 – Submittal Procedures
 - 7. Section 01 75 60 – Testing Coordination and Start-Up Testing
- 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 (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 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 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 2 completed construction projects of at least as large as the **San Francisco Housing Authority Potrero Terrace Emergency Boiler and Distribution Piping Replacement** and having at least as many schedule activities as the **San Francisco Housing Authority Potrero Terrace Emergency Boiler and Distribution Piping Replacement**. 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) Project Planner 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 shall 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:
 - 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
 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.
- 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. An electronic copy containing all data comprising the schedule shall be submitted with every submittal of the progress schedule in CD format.

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 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
 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 15 to 40 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 1.08 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 1.07.B 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.

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 four weeks: the immediate past week, the current week, and the forthcoming two weeks. This schedule will include all activities which are complete, started, are incomplete or underway, or scheduled to be worked during this three 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 (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 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.
 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 using the Transmittal Form. Six copies of each sample or oversized document shall be submitted on the same day the transmittal is sent, along with a hardcopy of the transmittal form.

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 1/4" border on three sides and 1/2" 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 (NOT USED)

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 35 43.13

BUILDING-RELATED HAZARDOUS MATERIALS

3.01 HAZARDOUS MATERIALS MANAGEMENT

- A. Contractor shall fully comply with all applicable hazmat requirements set forth in Section 01 35 43.13 – Building Related Hazardous Materials:
1. SCA Environmental, Inc. Reports Titled: “Hazardous Materials Abatement Specifications San Francisco Housing Authority Potrero Terrace Housing Development San Francisco, California; SCA Project No.: B-10796, October 11, 2012”
 2. SCA Environmental, Inc. Reports Titled: “Hazardous Materials Abatement Specifications San Francisco Housing Authority Potrero Terrace Housing Development San Francisco, California; SCA Project No.: B-10645, March 24, 2014”

END OF SECTION

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 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

1. 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. 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. Bay Area Air Quality District (BAAQMD)
 2. San Francisco Housing Code, Chapter 7, Mechanical Requirements, Section 701, Heating and Ventilation
 3. Excavation and trenching work to comply with USA North's California Excavation Manual; California Business and Professions Code Section 7110, California Government Code 4216, and the California Code of Regulations Title 8 Article 6. Excavations.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 41 15

EXCAVATION PERMIT REQUIREMENTS

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. SFDPW ORDER No. 178,940, “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. Contractor to comply with the following Applicable Codes, Standards and agencies:
 - 1. Underground Service Alert (USA) North’s California Excavation Manual
 - a. Website: www.usanorth811.org
 - b. Phone: 811 and/or 1-800-227-2600
 - 2. California Business and Professions Code Section 7110
 - 3. California Government Code 4216
 - 4. California Code of Regulations, Title 8, Subchapter 4. Construction Safety Orders, Article 6. Excavations

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 to:

Bureau of Street Use & Mapping (“BSM”),
Dept. of Public Works, Street Construction Coordination Center
1155 Market Street
San Francisco, CA 94103
Phone (415) 554-6201 Fax (415) 554-5843

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

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
BAAQMD	Bay Area Air Quality Management District
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
DHW	Domestic Hot Water
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
SFHA	San Francisco Housing Authority
SFPUC	San Francisco Public Utilities Commission
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 (NOT USED)

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 45 00

QUALITY CONTROL

PART 1 – GENERAL

1.01 SUMMARY

- A. This Specification Section describes the Contractor's responsibility to establish and maintain an effective Quality Control ("QC") program. The Contractor's QC Program shall include QC Plan prepared and submitted by the Contractor to a level of detail acceptable to the City Representative, which shall define specific standards, methods and procedures to be used for QC inspection and testing of the work of this Contract.
- B. The Contractor's QC Plan shall define procedures to manage and control the Contractor's equipment, materials, and personnel so that the completed project will comply with the Contract Documents.
- C. Related Documents and Sections include:
 - 1. Section 00 72 00 – General Conditions, Article 8
 - 2. Section 00 73 19 – Health and Safety Requirements
 - 3. Section 01 31 00 – Project Management and Coordination
 - 4. Section 01 41 00 – Regulatory Requirements
 - 5. Section 01 33 00 – Submittal Procedures
 - 6. Section 01 32 16 – Construction Progress Schedule
 - 7. Section 01 60 00 – Product Requirements
 - 8. Section 01 75 60 – Testing Coordination and Start-Up Testing
 - 9. Section 01 77 00 – Closeout Procedures
 - 10. Section 01 78 39 – Project Record Documents
 - 11. Latest California Building Code – Structural Tests and Special Inspections
- D. Description of Contractor's QC Program
 - 1. The Contractor's QC program shall consist of plans, procedures, and Contractor's staffing assignments as necessary to ensure that the

Contractor's performance of the work will meet the requirements of the Contract Documents. The program shall cover all construction activities, including Contractor's submittals, Contractor-furnished design, Contractor's shop drawings and the like, and shall also cover quality control of construction activities on-site, and shall be keyed to the proposed construction sequence and schedule.

- E. Notwithstanding the requirements of the specifications, all Contract work is subject to inspections and tests as determined by the City Representative. Inspections may be conducted by the City Representative and his/her staff at any time, or by the SFPUC Quality Assurance Group staff by prior arrangement with the City Representative. The City's inspections and tests are for the sole benefit of the City and do not:
1. relieve the Contractor of responsibility for providing adequate quality control measures;
 2. relieve the Contractor of responsibility for damage to or loss of the material before acceptance;
 3. constitute or imply acceptance of the work; or
 4. affect the continuing rights of the City after acceptance of the completed work.

1.02 DEFINITIONS

- A. Contractor Quality Control is the successful execution of a realistic plan which ensures that the required standards of quality construction are met and which will preclude problems resulting from poor quality or lack of quality.
- B. Non-Compliance Notice ("NCN") – a written notice to the Contractor from the City to the effect that a deficiency has been found in the work such that that portion of the work is considered to be defective or "non-conforming" as defined in the General Conditions of the Contract.
- C. Corrective Action Report ("CAR") – a written notice given by the Contractor to the City that defective or non-conforming work has been corrected or will be corrected within a mutually acceptable time frame.

1.03 PAYMENT PROCEDURE

- A. Separate payment will not be made for providing and maintaining a Contractor's Quality Control program. All costs associated with the Contractor's Quality Control Program shall be included in the applicable unit prices or lump-sum prices contained in the Schedule of Bid Prices (Section 00 41 10).

- B. The Schedule of Bid Prices (Section 00 41 10) may contain line items which cover specific and independent instances of equipment testing or system testing and for which separate payment will be made.

1.04 SUBMITTALS

- A. Not later than 14 calendar days following Notice to Proceed, the Contractor shall submit:
 - 1. The Contractor's Quality Control Plan as described in Article 1.05 below.
 - 2. The qualifications of all proposed independent inspection and testing laboratories/agencies as required under paragraph 1.07.B of this Section.
- B. Contractor shall maintain complete records of all letters, material submittals, shop drawing submittals, schedules and all other project documentation. The Contractor shall be responsible for maintenance of these documents and records at the site at all times, and shall make copies available to the City Representative on request.

1.05 CONTRACTOR QC PLAN

- A. The Contractor QC Plan shall include, as a minimum, the items listed below:
 - 1. The Contractor shall issue letters of direction to all other Contractor QC staff outlining duties, authorities, and responsibilities. Copies of these letters shall also be furnished to the City Representative.
 - 2. Contractor's procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, off-site fabricators, suppliers, and purchasing agents.
 - 3. The Contractor's QC Plan shall provide a mechanism for the Contractor to respond to Non-Compliance Notices ("NCNs") which may be issued by the City Representative.

The Contractor's QC Plan shall contain procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures shall establish a tracking method to ensure that deficiencies, i.e., non-conforming items of work, have been identified (documented in Non-Compliance Notices) and corrected (documented by Corrective Action Reports). See Appendix "A" to this Section for a suggested "Non-Conforming" reporting and tracking form.

- 4. Provide a sample of Quality Control forms applicable for the project considered. The Contractor QC Plan's forms may include, but not be limited to the following:

- a. QC Inspection Reports
 - b. Non-Compliance Notice. (Refer to Appendix "A" of this Section.)
 - c. Equipment Calibration Log
 - d. Receiving and Storage Inspection Report
 - e. Concrete Placement Checklist Form
 - f. Source (factory) Inspection Report
 - g. Welding Report
 - h. Soil Tracking Report (excavation, disposal, backfill materials)
 - i. Additional forms as required by the Contractor QC staff or by the City Representative
5. A list of the major elements of work and the quality control tasks, measurements, tests and inspections associated with each major element.
6. Qualifications and resumes of independent testing laboratories and principal laboratory personnel to be used in the work by the Contractor. Identify which laboratory is to be used for each of the various types of testing and analysis found in the Contract Documents.
- a. The City Representative may require that specific testing be performed by an independent certified testing and inspection agency under direct contract with the City.
 - b. In the event that the City Representative deems it necessary that a specific laboratory test or field test is to be arranged and paid by the City, and if that activity appears in the Contract Documents as a responsibility of the Contractor, then the Contractor shall be directed to prepare a Contract Modification, under which the City will receive an appropriate monetary credit for the specific testing activity.
7. Quality control requirements for operational testing and start-up testing as specified in Sections 01 75 60 and 01 75 61 (if applicable) shall be incorporated into the Contractor QC Plan.
- B. Acceptance of the Contractor QC Plan by the City Representative is required prior to the start of construction. Acceptance of the Plan is conditioned upon satisfactory performance by the Contractor QC team during construction. The City reserves the right to require the Contractor to make immediate changes in its Contractor QC Plan and operations, including removal of personnel, as necessary, to obtain the quality specified.

1.06 CONTRACTOR QC COORDINATION CONFERENCE

- A. Following the Pre-construction Meeting, and before start of construction, the Contractor shall convene a Contractor QC Coordination Conference with the City Representative.
- B. The following topics shall be addressed at the Contractor QC Coordination Conference:
 - 1. Status of the Contractor's Quality Control Plan.
 - 2. Discussion of the adequacy of the Contractor QC forms contained in the Contractor QC Plan.
 - 3. Administration of the Contractor's QC Plan for both onsite and off-site work,
 - 4. Scheduling of subsequent Contractor QC follow-up meetings

1.07 COORDINATION OF INSPECTIONS AND TESTING

- A. The Contractor shall perform specified or required tests per the Contract Documents. Upon request, the Contractor shall furnish to the City Representative duplicate samples of test specimens for possible testing by the City. Testing includes both materials testing as well as operational and/or acceptance tests when specified. If specified, operational and acceptance testing shall be performed by a City-approved testing agency. The Contractor shall perform the following activities and record and provide the following data:
 - 1. Verify that testing procedures comply with contract requirements.
 - 2. Verify that facilities and testing equipment are available and comply with testing standards.
 - 3. Check test instrument calibration data against certified standards.
 - 4. Verify that recording forms and test identification control number systems, identified in Contractor QC plan, including all of the test documentation requirements, have been prepared.
 - 5. Unless otherwise approved by the City Representative, actual test reports must be submitted within 5 working days following a test. An information copy of tests performed by an off-site or commercial test facility shall be provided directly to the City Representative. Failure of a testing or laboratory facility to submit timely test reports as required may result in withholding of payment for work performed and subsequent rejection of the test facility's services for the remainder of this Contract's work.

- B. The Contractor may need to hire various independent inspection and testing agencies/laboratories to cover all work. These may include, but are not limited to the following:
1. Independent Certified Testing Laboratory for soil testings (e.g., compaction testing for soil, evaluation of soil for landscaping).
 2. Independent Certified Testing Laboratory analyzing chemical constituents of the soil to determine whether or not the soil is hazardous.
 3. Independent Certified Inspection and Testing Agencies for conducting specialized inspections and testing related to architectural, mechanical and electrical work as required in the various sections of the Specifications.
 4. As appropriate for materials or fabrications constructed within CALTRANS corridors, an Independent Certified Testing laboratory approved by CALTRANS.

None of the Independent Certified Inspection and Testing Agencies or Laboratories proposed and retained by the Contractor shall be associated with or affiliated with the Contractor or any of its subcontractors. Agencies or Laboratories charged with the responsibility of performing Structural Tests and Special Inspections as defined in the latest California Building Code shall be employed by the City Representative.

- C. Where the required inspections and testing vary from the approved inspections and testing schedule, the Independent Inspection and Testing Agencies/Laboratories shall provide at least a 5 working day advance notice to the Contractor and to the City Representative prior to the date of the inspection and testing for approval.
- D. Within 5 working days after the completion of the inspections or tests performed, the Independent Inspection and Testing Agencies/Laboratories shall submit to the City Representative, in duplicate copies, the results of the inspections and tests with a copy to the Contractor, indicating observations and the results of tests and indicating compliance or non-compliance with the Contract. The forms used shall be those in the sample template from the Contractor QC Plan, as noted in Article 1.05 of this Section.
- E. In addition, the City Representative may choose to verify the Contractor QC testing and inspections with his/her own testing. The Contractor shall cooperate fully with the City's own inspection and testing agencies/laboratories and shall furnish samples of materials, design mix, equipment, tools, storage, and assistance as requested.
- F. Re-testing or re-inspection required (including re-inspections by officials having jurisdiction, if applicable) because of non-conformance to specified requirements

shall be performed by the same independent agency/laboratory on instructions by City Representative.

- G. Contractor is responsible to coordinate all required inspections, tests, including any re-tests, by all independent inspection and testing laboratories/agencies so as to avoid unnecessary delays in the construction schedule. Re-test and/or re-inspection requests by the City Representative shall not be construed as construction delays.

1.08 QC REPORTS

- A. The Contractor and his/her staff shall maintain current records, providing factual evidence that required quality control activities and/or tests have been performed. These records shall include the work of subcontractors and suppliers and shall be on an acceptable form as listed in the Contractor QC Plan. The records shall include, as a minimum, the following information:
1. Contractor/subcontractor and their area of responsibility.
 2. Test and/or control activities performed with results and references to specifications/drawings requirements.
 3. Provide a list of Non-Conforming Notices and Corrective Action Reports (“NCNs” and “CARs”) issued each day. Contractor shall compile daily data so that a trend log of Non-Conforming Notices can be published at the end of each month during construction.
 4. Submittals and deliverables reviewed, with contract reference, by whom, and action taken.
 5. Off-site activities, including actions taken.
 6. Instances of conflicts in plans and/or specifications noted on a daily basis.
 7. Contractor's verification statement stating that each report is a complete, true and accurate account of the reported construction activity.
- B. The original and one copy of these records in report form shall be furnished to the City Representative and within 24 hours after the date covered by the report. As a minimum, one report shall be prepared and submitted for every 7 calendar days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. Reports shall be signed and dated by the Contractor, and shall include copies of reports prepared by all subordinate quality control personnel.

1.09 RECORDS OF CONSTRUCTION INSPECTION

- A. The Contractor shall maintain complete inspection and testing records and make them available to the City Representative in both hard copy and electronic form, as requested.

1.10 NOTIFICATION OF NON-COMPLIANCE

- A. The City Representative may issue a Non-Compliance Notice (“NCN”) to the Contractor for any apparent non-conformance in the work or portion thereof that has not been performed in accordance with the Contract Documents. Such Notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification.
- B. The Contractor shall take immediate corrective action after receipt of such Notice, and shall provide a written Response to Non-Compliance within 5 working days after receipt of the Notice. The Contractor’s response shall detail either (a) why they believe that the work was performed in accordance with the Contract Documents or (b) what corrective action they intend to take, at their sole expense, to correct the non-conforming work initiated as a Corrective Action Report (“CAR”).
- C. If the Contractor disputes issuance of the Notice, the City Representative will respond within 5 working days after receipt of dispute by either (a) withdrawing the Non-Compliance Notice or (b) directing the Contractor to correct the work. If the City Representative directs the Contractor to correct the work, the Contractor shall do so within 5 working days after receipt of such direction from the City Representative, or such other time as may be agreed to with the City Representative.
- D. Payment shall not be made for any portion of the work which is the subject of a Non-Compliance Notice until the Non-Conforming condition has been corrected.
- E. If the Contractor fails or refuses to comply promptly, the City Representative may issue an order stopping that portion of the work related directly to the NCN as well as work which may be consequentially affected by the NCN until satisfactory corrective action has been taken. No extension of Contract time will be granted as a consequence of such a stop order.

1.11 MONTHLY CAR/NCN STATUS LOG

- A. The Contractor shall submit with its monthly application for payment, a complete log of all NCN’s and CARs issued to date indicating the status of resolution, corrections undertaken, and the date of close out of the NCN/CAR. This log shall be signed by the Contractor.

1.12 PROJECT SPECIFIC REQUIREMENTS (NOT USED)

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

PART 0 –

APPENDIX 'A' – SFPUC NON-CONFORMING CONSTRUCTION REPORT

1	Report # _____ Date: _____ Job # _____ Job Name _____ To: Contractor _____ Sub Contractor(s) _____ Sub-Contractor(s) _____
2	Non-Conforming Condition: Relevant Specification Section(s) _____ Relevant Drawing Number(s) _____ Description of non-conforming condition: _____ _____ _____ Contractor's Quality Control Plan Reference: _____
3	Received by: Signed (Contractor's Representative): _____
4	Contractor Tracking: Non-Conforming condition tracked through: Ready for re-inspection/Review: _____
5	SFPUC Follow-Up: Corrections accepted by SFPUC Yes _____ No _____ Further Action Required: _____ Signed (City Representative): _____ Date: _____

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 14 13 – Access to Site
 - 3. Section 01 71 33 – Protection of Adjacent Construction
 - 4. Section 01 77 00 – Closeout Procedures

1.02 TEMPORARY ELECTRICITY

- A. Electrical Power: SFHA will provide 120 V electrical power.

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 Contactor 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 Representatives Field Offices.

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 Material 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, 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 City and City Representative Field Office facilities. 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.

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/staff-resources/signage-and-style-guide/>.
 - 1. For linear assets, (e.g., streets and sewers), project signage shall comply with City Street Construction Guidelines: http://onesanfrancisco.org/wp-content/uploads/ONESF_4x6_Guide_CityStreetConstSign-1.4.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/wp-content/uploads/ONESF_4x8_Guide_SiteBldgConstSign1.5.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. Contractor shall provide proper signage indicating that the work area is a Construction Zone and is for Authorized Personnel Only and to Keep Out and any other signage that would protect the public and local residents from any harm or injury.
- B. Domestic hot water service shall remain in service during the course of the project except for scheduled shut-downs to cross connect the new system. Interruption in

domestic hot water service shall not exceed 8 hours per shut down. Two consecutive scheduled shut-downs will not be permitted.

- C. Scheduled shut-down of domestic hot water shall be reported no later than 48 hours (weekday) to the SFHA Project Manager and the SFPUC Project Manager. Contractor shall proceed with shut-down only upon approval.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

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)

1.02 REQUIREMENTS

- A. Noise levels during construction shall not exceed the following thresholds:
 - 1. 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.
 - 2. 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.
 - 3. 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.
 - 4. Contractor shall pay all fines for violations pertaining to noise thresholds specified herein, at no cost to the City.
 - 5. Contractor shall implement the following noise control measures, as necessary, if activities are expected to exceed the above noise thresholds.

Contractor shall be responsible for ensuring that all implemented noise control measures are installed and used correctly.

- a. Best available controls techniques including mufflers, intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds for all construction-noise equipment and trucks.
- b. Contractor shall use quieter procedures, such as sonic or vibratory pile drivers drilling rather than impact equipment whenever feasible. 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.
- c. Pile holes will be pre-drilled wherever feasible to reduce potential noise and vibration impacts.
- d. Pile driving activities shall be prohibited during the evening and nighttime hours (7 p.m. to 7 a.m.).
- e. Operation of equipment requiring the use of back up beepers will be avoided near sensitive receptors to the extent feasible during nighttime construction work hours between 10 p.m. to 7 a.m.
- f. 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) shall be installed to ensure noise thresholds specified herein are not exceeded. Enclosure openings shall be faced away from sensitive receptors.
- g. Materials stockpiles as well as staging and parking areas shall be located as far as feasible from sensitive receptors.
- h. If construction is within 100 feet of school classrooms or childcare facilities, 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. If construction must occur within the school session hours, interior noise levels in the classroom shall not exceed 60 dBA speech interference level criterion which would allow for a maximum exterior noise level of 70 to 80 dBA depending on whether windows are open or closed.
- i. Construct temporary or permanent noise barriers to maintain construction noise levels at or below the 70 dBA daytime speech interference criterion and the 50 dBA nighttime sleep interference criterion.

- j. Contractor shall use local residential streets for haul and delivery truck routes and follow local designated truck routes to the extent feasible. Total project-related haul and delivery truck volumes on any particular haul truck route shall not exceed 80 trucks per hour.
 - k. Contractor shall prohibit haul and delivery trucks from operating within 200 feet of any residential uses during nighttime hours (10 p.m. to 7 a.m.). If there are receptors, but they are beyond 200 feet from the haul route, truck operations are allowed but noise generated by these operations shall not exceed 50 dBA at the closest receptors.
6. 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.
7. 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.
8. If Contractor receives noise complaint directly, Contractor shall immediately notify City.
9. Vibration during construction shall not exceed the following thresholds:
 - a. 0.2 inches per second, peak particle velocity (in/sec PPV) for continuous vibration (e.g., vibratory equipment and impact pile drivers)
 - b. 0.50-in/sec PPV for controlled detonations at the closest receptors
 - c. 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.
10. 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.
11. 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.

12. 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.
13. If Contractor receives vibration complaint directly, Contractor shall immediately notify City.
14. 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.

1.03 PROJECT-SPECIFIC REQUIREMENTS (NOT USED)

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

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 goals, 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 GOAL

- A. The following is a list of material, articles, equipment or other manufactured items that the Department has designated as "Specially Manufactured Items":
 - 1. (NOT USED)
- B. Contractor shall refer to CMD Attachment 1 or 6 (Section 00 49 01 or 00 49 06), Part III, Section 3.01.B, 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 (NOT USED)

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

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.
- 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.
- F. 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 (NOT USED)

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 73 25

SEISMIC REQUIREMENTS FOR MECHANICAL AND ELECTRICAL EQUIPMENT

PART 1 – GENERAL

1.01 SUMMARY

This section applies to all mechanical and electrical equipment specified in Divisions 11, 13, 21, 22, 23, 26, and 46. All mechanical and electrical equipment including supports and anchorages shall be selected to withstand the earthquake loads as described in the latest editions of the ASCE Standard (ASCE/SEI 7-05), International Building Code, and California Building Code, even if older editions are listed.

1.02 RELATED SECTIONS

- A. Specification Section 01 33 00 – Submittal Procedures
- B. Specification Section 22 04 00 – General Requirements for Plumbing
- C. Specification Section 23 04 00 – General Requirements for Heating Ventilating and Air Conditioning
- D. Specification Section 26 04 00 – General Requirements for Electrical

1.03 CODES AND STANDARDS

- A. Equipment including its support and anchorages, vibration isolation and seismic restraint work shall conform to the latest edition of all applicable codes and standards; including, but not limited to, the following:
 - 1. ASCE Standard (ASCE/SEI 7-10)
 - 2. Seismic Restraint Manual: Guidelines for Mechanical Systems, 3rd edition 2008, ANSI/SMACNA 001-2008
 - 3. California Building Code, Latest Edition
 - 4. International Building Code, Latest Edition

1.04 SUBMITTALS

- A. The structural integrity of equipment assemblies, manufactured devices and field-fabricated devices and anchorage elements shall be certified by calculations or testing laboratory data or experience data to demonstrate its adequacy of the equipment and the anchorage system to withstand seismic forces and compliant with the code requirements. These calculations may be based on principles of

structural analysis and engineering mechanics, or based on similarity to approved shake table tests, or based on experience data.

- B. Contractor shall submit for review and approval, special certification documents, test data or calculations stamped and signed by a Civil or Structural Engineer registered in the State of California to show compliance with the above requirements.
- C. For general submittal procedures, see Section 01 33 00: Submittal Procedures.

1.05 SEISMIC LOADS

- A. Seismic loads shall be determined by Section 1613 of CBC13/IBC12 and Sections 11.4, 13.3, and 13.4 of ASCE/SEI 7-10, but calculations in accordance with the latest editions of these documents shall govern.
- B. Seismic load shall be determined based on the site-specific response spectra in the project seismic design criteria or geotechnical report, if available.
- C. Alternatively, the design/test spectrum can be based upon a 5% minimum damping factor, a peak of 2.57g (3.2-11Hz), and a ZPA of 1.0g at the base of the equipment. The design or tests shall fully envelop this response spectrum for all equipment natural frequencies up to at least 35 Hz.

1.06 SEISMIC QUALIFICATION OF EQUIPMENT

- A. Special certification for mechanical and electrical equipment is required. The certification can be obtained by one of the following three methods outlined in Section 13.2.2, ASCE/SEI 7-10:
 - 1. Shaking table test
 - 2. Experience data
 - 3. Calculations
- B. Alternatively, Contractor may submit OSHPD Special Seismic Certification Preapproval (OSP) number for the equipment that will be installed.

1.07 PROJECT-SPECIFIC REQUIREMENTS (NOT USED)

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01 75 60

TESTING COORDINATION AND START-UP TESTING

PART 1 – GENERAL

1.01 SUMMARY

- A. This Specification Section establishes the Contractor's responsibilities for developing and conducting the functional, performance, pre-start-up and start-up tests for the entire pump station and all peripheral systems for the **San Francisco Housing Authority Potrero Terrace Emergency Boiler and Distribution Piping Replacement Project**.
- B. Related Sections include:
 - 1. Section 01 33 00 – Submittal Procedures
- C. Start-up testing involving conveyance of potable water into the distribution system shall be conducted following successful completion of the facility and associated pipe disinfection activities.
- D. Satisfactory completion of the start-up testing shall be required in order to achieve Substantial Completion of this Contract.
- E. The Contractor shall provide a Testing Coordinator who will be responsible for developing and administering the functional, performance, and start-up testing program for this project.
- F. The work of this Section shall be considered incidental and no separate payment will be made therefore.

1.02 DEFINITIONS

- A. Control Systems Functional Acceptance Test ("FAT"): The control systems functional acceptance testing demonstrates the proper interaction of the Facility PLC and the related equipment individual control system. The Systems Integrator will be responsible for this test. The Testing Coordinator shall coordinate tests and activities to support the control systems FAT.
- B. Electrical Testing ("ET") firm: The testing entity responsible for performing functional and performance tests on all Division 16 Electrical equipment, components and materials. The Electrical Testing firm shall coordinate scheduling work, testing, training of City personnel, and documentation with the Testing Coordinator.

- C. Field Tests: Denotes all field testing including functional, performance, pre-start-up and start-up tests.
- D. Functional Test: The field testing required to determine if installed equipment or system will operate in a satisfactory manner and as specified. The functional test is a point-by-point test to confirm that all components associated with the equipment or systems are operating properly. All non-operating adjustments, cold alignment checks, and cleaning shall be completed prior to functional test.
- E. Performance Test: The field testing required to demonstrate the individual equipment or system meets all of the contract performance requirements.
- F. Pre-Start-Up Test: A pre-start-up test of all systems operating together to demonstrate satisfactory performance of the facility as a whole, as it performs connected to the City system, for the specified pre-start-up test period without failure and to the satisfaction of the Contractor and the City. The test procedures for both the pre-start-up test and start-up test shall be the same. Any start-up test requirement applies to the pre-start-up test. The pre-start-up phase allows the Contractor to make final adjustments and troubleshooting before start-up testing. Successful completion of pre-start-up test shall ensure that the Contractor is ready to demonstrate satisfactory operational performance of the facility as a whole.
- G. Start-Up Test: A final commissioning test of all systems operating together to demonstrate satisfactory performance of the facility as a whole, as it performs connected to the City system, for the specified start-up test period, without failure and to the satisfaction of the City.
- H. System Integrator ("SI"): SI is the responsible party for interfacing the facility PLC and Controls to the LOI and the City's established SFWD SCADA system. The SI duties include, but are not limited to, performing all work necessary to design, select, furnish, customize, debug, supervise installation, connect, calibrate, field modify existing control and instrumentation wirings and place into operation all hardware, communication lines and equipment, and coordinate the programming of all software. The SFWD SCADA will be programmed by the City. The System Integrator shall coordinate scheduling of work, testing, training of City personnel, and documentation with the Testing Coordinator.
- I. Testing Coordinator ("TC"): TC is a testing and commissioning superintendent responsible for overseeing, organizing, compiling, and administering all field testing for the overall project.

1.03 SUBMITTALS

Submittals shall be made as required in Section 01 33 00. In addition, the following specific information shall be provided:

- A. Submit the following a minimum of one 120 calendar days prior to the first functional test:

1. A list of all field tests with reference to appropriate specification sections and submittal dates.
 2. Testing Coordinator's qualifications & past project experience including contact names, addresses, and current telephone numbers that can be used to verify the accuracy of the provided information.
 3. Manufacturer's representatives' resumes demonstrating their qualifications and ability to perform the specified services.
- B. Submit the following a minimum of 90 calendar days prior to the first functional test:
1. Test Procedures for All Field Tests
 - a. All test procedures shall be comprehensive, neatly organized, type written, and numbered step-by-step.
 - b. Detailed test methods, including sample calculations and reference to standards as required or applicable.
 - c. Pre-test checklist to ensure readiness and any safety measures are in-place.
 - d. Details of all necessary adjustments, balancing, required equipment isolation or configuration, test equipment and instruments, calibration, and personnel needed.
 - e. Acceptance Criteria: For each test phase, specifically indicate what is considered an acceptable test result.
 - f. Data Forms: Include the test name, equipment (with tag numbers as applicable) or system name, specification section and paragraph number, test instrument tag numbers, test date, space for testing personnel names, test data names, and units, reference equations for all calculated values, and signature lines for manufacturer's representative, Contractor and City witness.
 2. Start-up Plan
 - a. In addition to submitting a start-up test procedure, the Contractor shall develop and submit a start-up plan. The start-up plan shall systematically describe the details of preparing for and starting each system at the facility at the beginning of the start-up test. The start-up plan shall also include detail procedures for the systematic shutdown of all systems at the facility.
 - b. The Contractor shall coordinate with the City Representative, as necessary to develop the start-up plan.
 - c. At a minimum, the start-up plan shall include the proposed chronological sequence of activities and detailed procedures for

starting or shutting down facilities and systems. In addition, provide the following detailed information:

- 1) A list of new and existing facilities, equipment, and systems with applicable references to device name and City tag number that must be in operation before the startup test can begin
- 2) CAD drawings and schematics highlighting the facilities, systems, and equipment included in the start-up testing
- 3) Diesel fuel and other expendables required for the start-up test
- 4) The chronological sequence of activities clearly divided into activities to be completed in preparation for start-up test versus activities completed during the start-up test
- 5) Expected durations of each test activity
- 6) Details of completion of system disinfection activities in preparations for the start-up test

3. Comprehensive Testing Schedule

- a. List all equipment testing by specification section number and name. Include the following for each equipment/system:
 - 1) Specification section and paragraph number
 - 2) Test type (functional, performance, start-up)
 - 3) Test procedure submittal dates
 - 4) Testing and start-up dates
 - 5) Test report submittal dates
- b. After initial submittal, update and provide test schedules on a weekly basis at project progress meetings and/or test coordination meetings.
- c. All communication systems and systems designed for control through PLC or SCADA will require testing and coordination with the project Systems Integrator ("SI"). The Contractor shall make scheduling allowances for these tests and incorporate this information into the construction schedule.

C. Daily Test Reports

1. Submit daily test report describing equipment being tested, referenced test procedure, test methods, test strategies actually used or implemented during the test, and any problems and deficiencies found during testing. If there was troubleshooting done, the daily test report shall describe the troubleshooting methods and strategy.

2. At the end of each test day, Contractor shall download all pertinent data from graphic data recorder and attach to the daily test report.

D. Final Field Test Reports

1. Upon successful completion of testing for each equipment item or system, the Contractor shall submit complete typewritten test report including data forms.
2. Upon substantial completion, all factory, functional and performance test reports shall be inserted by the Contractor into the applicable O&M manuals.

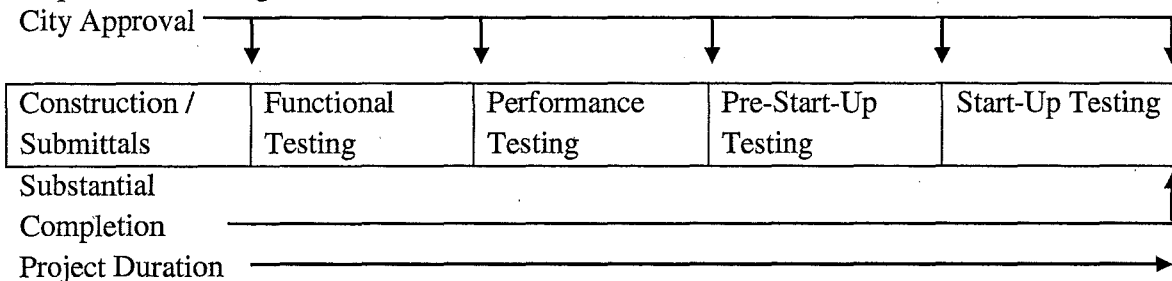
E. Device Settings: Submit all final device settings for all field adjustable devices. These settings shall be incorporated into the final O&M manuals for each piece of equipment supplied.

F. Field Test Manual

1. When all field testing is complete, submit all test documents in bound form. This consolidated submittal is in addition to the individual submittal of test procedures and test results. Format requirement for this field testing manual shall be the same as for the O&M manuals, including section dividers by system or equipment. Note: Electrical Equipment data shall be provided on approved NETA forms and Instrumentation and Control data shall be provided on ISA forms.

1.04 FIELD TEST REQUIREMENTS – GENERAL

Sequence of Testing:



1.05 FUNCTIONAL TEST REQUIREMENTS

A. Functional tests shall not proceed until the City has received and approved the items listed below:

1. Interconnection and Loop diagrams
2. All factory test reports

3. Manufacturer's Certificate of Proper Installation (where required)
4. Equipment or system test submittal
5. All specified spare parts and special tools
6. Draft O&M Manuals (Final O&M Manuals to have test results and data forms incorporated into them)

B. Functional tests include:

1. Communication System Functional Test, see below.
2. Device Calibrations, Loop Checks, and Electrical Commissioning:
 - a. Calibration Check: Verify that all devices have been properly field calibrated and that field calibration tags have been completed and installed in accordance with Section 23 0500 – Common Work Results for HVAC.
 - b. Loop Checks: Refer to Division 13 for Instrumentation and Control.
 - c. Electrical Commissioning: Refer to Division 16.
 - d. All device calibrations, loop checks and electrical systems commissioning shall be completed and accepted by the City prior to starting the remaining functional test elements specified hereinafter.
3. Installation Check: Check for proper rotation, adjustment, alignment, balancing, mechanical and electrical connections, proper lubrication, and any other conditions that may damage or impair equipment from functioning properly.
4. Operations Check: Check for proper operation of all system components.
5. Controls Check: Demonstrate proper function of all local and remote controls, instrumentation, and other equipment functions.
6. Alarms Check: Simulate alarm conditions and verify the proper operation of each alarm at the specified set point. Simulations shall be by means of direct element stimulation whenever possible or by other means when direct element stimulation is not practical as determined by the City Representative.
7. Run Check: Each system or equipment item shall be operated continuously for a minimum of 1 hour unless noted otherwise.
8. Additional Test Requirements: The individual technical specifications or the equipment manufacturer may specify additional functional test requirements for each component system.

1.06 COMMUNICATION SYSTEM FUNCTIONAL TEST

- A. This test is required for any project that includes input or output to the City SCADA system.
- B. The instrumentation and control communications testing shall be coordinated by the System Integrator (“SI”) specified in Division 13. City operations and Information Technology System (“ITS”) Staff will verify proper installation of all communication systems between and within the City facilities and sites.
- C. The instrumentation and control communications testing shall not proceed until all related systems have been completely installed and tested (including loop checks, leased telephone (ADN) data communication tests, spread spectrum and MAS radio, and VSAT) as required by the respective technical sections, and all systems are ready for operation.
- D. Refer to the each respective specification section for additional communication system performance testing requirements.
- E. If the project scope is limited to new input to (E) SCADA facility this test is limited to electrical subcontractor coordinating with City ITS staff to verify signal reception to (E) SCADA.

1.07 PERFORMANCE TEST REQUIREMENTS

- A. The performance test shall not proceed until the functional test has been successfully completed and accepted by the City.
- B. Copies of all prior test results (factory and field functional tests) shall be available on-site, prior to proceeding with the performance tests.
- C. Performance Tests shall demonstrate that the equipment or system meets all specified performance requirements described in the individual technical specifications.

1.08 CONTROL SYSTEM FUNCTIONAL ACCEPTANCE TEST (“FAT” – SOMETIMES REFERRED TO AS INSTALLED TEST

- A. The Control System FAT is classified as a performance test for the purposes of these testing requirements.
- B. The control system functional acceptance tests will demonstrate the proper performance of each process sub-system control modes (local manual/automatic, remote manual/automatic) from all interface locations (local and remote).
- C. The control system functional acceptance tests shall not proceed until all systems have been completely installed and tested (including loop checks and the instrumentation and control communication system tests) as required by this

section and the respective technical sections, and all systems are ready for operation.

- D. Control systems functional acceptance tests will be completed by the System Integrator, in coordination with City staff, the Testing Coordinator, and a California State Certified electrician provided by the Contractor. The Contractor furnished electrician shall assist the System Integrator, the Testing Coordinator and City staff in resolving potential conflicts between the control systems and other equipment or systems installed under the Contract. The Contractor furnished electrician shall be made available within 30 minutes of notification (at any time during normal working hours), and shall then be dedicated only to those activities identified by the System Integrator. The cost associated with providing the electrician shall be considered incidental and no separate payment will be made therefore.

1.09 PRE-START-UP AND START-UP TEST – REQUIREMENT AND SCOPE

- A. The pre-start-up test shall use the approved start-up test procedure for the purposes of the pre-start-up test. These two tests verify that the facility is completely installed, that all systems are correctly set up and that the facility will reliably function over time in real world conditions.
- B. The start-up test shall not proceed until all of the following have been completed:
 - 1. All factory, functional and performance test record have been approved. Copies of these test records shall be available on-site as well.
 - 2. All draft O&M manuals have been approved.
 - 3. City personnel have been trained in accordance with the individual technical specifications
 - 4. All tagging and labeling including but not limited to piping, conduit, panels, and equipment, have been completed.
 - 5. All near final Contractor Record Drawings (not CAD set), that are still subject to further updating for incomplete work, have been submitted to the City Representative and approved.
 - 6. Start-up test procedure has been approved.
- C. The Contractor shall coordinate with the City to start-up the facility equipment and systems as outlined in the Contractor's start-up plan.
- D. Only Contractor's personnel approved by the City shall operate the equipment and systems during the startup test. When the Contractor requires the use of potable water for testing, City Operators will be present at all times.

- E. It is the intent of this section that the performance of any and all: pumps, valves, surge tanks, compressed air system, diesel generators, mechanical systems, electrical sub-systems and systems, and communication and SCADA systems be tested as a complete, operational, and integrated system conforming to the performance and design parameters outlined in this Contract. The entire facility shall be tested in the normal operational sequence in all control modes described in the Control Description specification, and individual equipment Specification Sections.

- F. The system start-up test procedure is intended to demonstrate satisfactory operation and integration of the control system and all the mechanical and electrical sub-systems and systems, and accessory equipment including but not be limited to:
 - 1. Refer to Division 13 Specifications - Control Description. Demonstrate all control sequences described using actual flow demand under operating conditions.
 - 2. Repeat control sequences as required in order to test each subsystem. Check and record all system flows, levels and pressures.
 - 3. The standby generators performance power test shall be conducted on a separate day from the main system start-up testing. The generator system shall be capable of successfully demonstrating the transfer from normal power to emergency power and complete all possible load configurations with facility start/stop run cycles. Refer to relevant Electrical Sections and Control Description Sections. The Contractor shall be responsible for providing diesel fuel for operation of the diesel generator. Diesel generator testing shall be completed between the hours of 9:00 a.m. to 3:00 p.m. on weekdays.

- G. The pre-start-up and start-up test requires that all new work of this Contract shall operate as designed and function in an uninterrupted and trouble-free manner with no mechanical or electrical failures for an extended time period. The standby power system shall be tested for actual operation (not simulated) with all possible facility load configurations with equipment start/stop run cycles.

- H. Pre-start-up and start-up test durations shall be as follows:

Start-Up Test Duration Requirement	
Pre-Start-Up Test	Start-Up Test
5 consecutive working days without failures starting on a Monday	7 consecutive calendar days without failures.

During these test periods the Facility shall be run as close to normal function as possible with exceptions to demonstrate non-normal functioning

- I. The start-up test shall be conducted at a time and date to be mutually agreed upon by the Contractor and the City.
- J. The Contractor shall provide the services of all-technical and craft personnel required to support the work covered under the Contract during the entire pre-start-up and start-up testing. Additionally, the Contractor shall arrange for on-call services of these personnel as needed to respond to emergencies.
- K. Contractor shall maintain the appropriate staff (either on-site or on call) to be able to respond immediately (24-hours per day) to system or equipment related questions and to correct deficiencies.
- L. At the satisfactory conclusion of the start-up test, dismantle, and remove all temporary valving, hoses, and other equipment used during the test.
- M. All deficiencies found during pre-start-up and start-up testing, and subsequent correction thereof, must be inspected and approved by the City.

1.10 TESTING COORDINATOR RESPONSIBILITIES AND QUALIFICATIONS

- A. The Contractor shall provide a test and commissioning superintendent responsible for developing and administering the functional, performance, pre-start-up, and start-up test program for this project. The Testing Coordinator's responsibilities shall include, but are not limited to, the following activities:
 - 1. Overall responsibility and coordination for all field testing.
 - 2. Liaison between the Contractor and the City for all field testing and start-up activities.
 - 3. The Testing Coordinator shall timely develop, compile, review for completeness and compliance to the specifications, and submit all required test submittals.
 - 4. Develop a comprehensive schedule for all field testing and startup activities, and provide regular schedule updates.
 - 5. Schedule and lead field test planning meetings.
 - 6. Oversee and administer all field testing activities, including either direct participation in the field testing, and/or oversight and monitoring of all field testing. It shall be the Testing Coordinator's responsibility to assure that all field tests have been completed in accordance with approved testing procedures.
 - 7. Conduct or oversee pre-test checks to ensure readiness for testing.

8. Verify all piping hydrostatic testing and applicable disinfection activities have been completed prior to field testing connected equipment.
 9. Safety: Develop safe work practice procedures (e.g., lockout/tagout procedures) and personnel protective equipment policies that will be followed during all field testing activities. At a minimum the Contractor must comply with CalOSHA and the City's established safety guidelines. It shall be the Testing Coordinator's responsibility to assure all safety procedures are followed at all times.
 10. Training: Prior to submittal to the City, review, and approve the content of all equipment training session to assure that the training includes all applicable operation, maintenance, safety, and functional, performance, and start-up testing information.
- B. Testing Coordinator's Statement of Qualifications
1. State certified electrician or a mechanical or electrical degreed engineer with the required experience.
 2. Minimum 5 years of experience in testing and commissioning of pump systems and other related electrical, mechanical and instrumentation systems.

1.11 MANUFACTURER'S SERVICES

- A. A manufacturer's authorized representative shall perform all services when manufacturer's services are specified in the technical specifications. The authorized representative shall be factory trained and experienced in the technical applications, installation, operation and maintenance of the equipment, subsystem or system. Additional qualifications may be specified elsewhere.
- B. Manufacturer's representatives shall be subject to the acceptance of the City. The Contractor shall submit the qualifications of the manufacturer's representative to the City Representative for review and approval. No substitute representatives will be allowed without prior written approval by the City.

1.12 EQUIPMENT AND MATERIALS REQUIRED FOR SYSTEM TESTING

- A. It shall be the Contractor's responsibility to ensure that all required material and test and repair equipment are on hand during all testing.
- B. All instruments used to measure equipment performance shall be calibrated. Certificates of calibration shall be current, and shall be at the job site during testing and provided upon request or when specified. Copies of the calibration records shall be submitted to the City Representative for review and approval prior to the start of testing.

- C. Contractor is required to provide all expendables during testing, including but not limited to, diesel fuel, oil and filters (e.g., air, fuel, oil, etc) required for testing. Upon completion of testing, all expendables shall be replaced with new ones and primed ready for operation.

1.13 PROJECT-SPECIFIC REQUIREMENTS (NOT USED)

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.01 GENERAL

- A. The Contractor shall perform all functional, performance, pre-start-up and start-up testing of all installed equipment or system(s).
- B. The Contractor shall complete all testing following the approved test procedures.
- C. All testing of any equipment that may affect the operation of the existing City facilities shall be coordinated with the City Representative.
- D. The Contractor shall coordinate with the City to determine the operating requirements for adjacent or related systems that may be required to complete the start-up test.
- E. Table 1 is a summary of equipment/systems that require functional and performance tests, in addition to pre-start-up and start-up testing. Functional and performance tests shall be completed and accepted by the City prior to the pre-start-up and start-up tests. Additional testing may be required when specified elsewhere. Not all listed equipment may be in this Contract.

TABLE 1

System/Equipment Type	Spec Ref.	Factory Test Reports	Training of City Personnel	Manufacturer's Cert of Instl	O&M Manuals	Equip Ident.	Functional Test Required	Performance Test Required
Hydronic Heating Boiler	Drawing M-1							
Water Heaters	Drawing P-1							
Primary Hot Water Supply Pumps	Drawing M-1							

Secondary Hot Water Supply Pumps	Drawing M-1								
Hydronic Heating Expansion Tank	Drawing M-1								
Domestic Hot Water Expansion Tank	Drawing M-1								
Air Separator	Drawing M-1								
On Demand Enovative Group Controller and DHW Recirculation Pump	Drawings P-1, P-2								
Hydronic Heating Controls	Drawing M-1								
DHW Controls	Drawings P-1, P-2								
General Requirements for Heating, Ventilation & Air Conditioning	Drawings P-1 through P-5; M-1 through M-6								
General Requirements for Electrical	Drawings E-1 through E-3								

3.02 FIELD TESTING COORDINATION MEETINGS

- A. Weekly meetings shall be scheduled and conducted by the Contractor to discuss overall test scheduling, procedures, strategy, and preparations for the forthcoming testing. The first meeting shall be conducted 60 calendar days prior to the first scheduled functional tests.
- B. The weekly planning meetings shall continue until all field tests are completed and approved by the City Representative.
- C. The Contractor’s Testing Coordinator shall attend all meetings, and the Contractor shall provide suitable representation from each subcontractor having testing responsibilities so that informed decisions can be made during the meetings.

3.03 RETEST

- A. If any portion of a test does not pass, the Contractor shall correct the problem in a timely manner and repeat the test until it passes to the satisfaction of the City.
- B. If any failure of any component or system occurs during the pre-start-up or start-up testing, then the **entire** test shall be re-started. If the TC determines that the failure is minor and recommends continuation of the test rather than re-starting, then the City Representative may permit continuation of testing at his/her sole discretion.

- C. If a failure of any component should occur during the start-up test, the Contractor shall be responsible for the actual cost of any idle time due to such failure. Such costs of idle time shall include personnel costs of City personnel who are assigned to coordinate, assist and witness the start-up test, personnel costs of the City's duly authorized representatives, rental of equipment and any other incidental costs of the delay.

3.04 AFTER TEST

- A. Once testing has been completed, all machines shall be rechecked for proper alignment, realigned, if necessary, and dowelled in place. All equipment shall be checked for loose connections, unusual movement, or other indications of improper operating characteristics. Any deficiencies shall be corrected to the satisfaction of the City Representative. All machines or devices which exhibit unusual or unacceptable operating characteristics shall be disassembled and inspected. They shall then be repaired or removed from the site and replaced at no cost to the City.

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 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 been satisfactorily restored to their pre-construction condition.

1.07 CLOSE-OUT DOCUMENTS REQUIRED BY CONTRACTOR

- A. Unless otherwise specified, the contractor shall provide a minimum of two (2) hard copies and two (2) electronic copies of the following close-out documents, as applicable, to include:
1. As-Built Drawings
 2. Commissioning Reports and/or Forms (primarily mechanical and electrical systems)
 3. Functional Testing Reports and Original Blank Copies of Forms
 4. Operation and Maintenance (O&M) Manuals
 5. Passwords and/or Entry Codes (e.g., controls software)
 6. Permits – Final signed off by SFDBI
 7. Permit to Operate Boiler
 8. Sequence of Operations (primarily mechanical systems)
 9. Start-up Reports

10. System Test Reports (e.g., hazmat reports, hydrostatic test reports, anchor pull test reports, third party inspections and/or test reports, etc.)
11. Submittals – Final Approved
12. Testing, Adjusting, Balancing (TAB) Reports
13. Training Documents and/or Guide
14. Warranties by Contractor and Manufacturer
15. Notice of Construction Completion and Warranty Period Form

B. Time of Issuance

1. Contractor shall submit the required close-out documents for approval as a precedent to final acceptance and final application for payment.
2. Contractor is responsible for submitting their sub-contractors close-out documentation in both hard copy and electronic copy formats.

C. Close-out documents shall be enclosed in an organized binder using the following format:

1. Binders: Commercial quality, 8-1/2 x 11 inch three ring binders with hardback, cleanable, plastic covers. If multiple binders are used, correlate data into related consistent groupings.
2. Cover: Identify each binder with typed or printed title of project, site address, contractor name, address, phone number, contractor contact, contract/task order number, date, and other pertinent information as applicable.
3. Table of Contents: Organize close out documentation in a Table of Contents under section numbers and sequence using the categories listed in SECTION 1.07 B.
4. Provide tabbed fly leaf for each separate set of document category per the Table of Contents.
5. Drawings: Provide with reinforced punched binder tab. Fold larger drawings to size of text pages.

D. Close-Out Documentation in Electronic Format

1. Contractor shall provide electronic copies of close-out documentation listed in SECTION 10.08 A as applicable.
2. Files shall be stored on CD-ROM. The CD-ROM shall be clearly labeled with the project title and date.
3. Each binder containing hardcopies shall include one copy in electronic format. The CD-ROM shall be attached to the binder in a CD holder for a standard three ring binder.
4. All electronic files shall be organized in folders following the Table of Contents in the binder with a description for easy file retrieval following the close-out document categories listed in SECTION 01 77 00 1.07 A. Each electronic file within the folders shall be identified in name with a description for easy file retrieval.
5. Electronic documents shall be provided in Adobe Acrobat (PDF) format unless otherwise specified or approved.
6. Copies of all working files (e.g., CAD drawings, reports, spreadsheets, etc.) shall be provided in editable format (e.g., *.DWG, *.DOC, *.XLS) .

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

**EXHIBIT A: FINAL SETTLEMENT AND RELEASE OF CLAIMS
CONTRACT NO. PW-005(E)**

**SAN FRANCISCO HOUSING AUTHORITY POTRERO TERRACE EMERGENCY
BOILER AND DISTRIBUTION PIPING REPLACEMENT**

This agreement and release of claims ("Agreement and Release") is made and entered into this ____ day of _____, 201__, 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. PW-005(E), San Francisco Housing Authority Potrero Terrace Emergency Boiler and Distribution Piping Replacement, (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. WHEEREAS, 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 a full, final and general release of all claims, demands, actions, causes of action, obligations, costs, expenses, damages, losses and liabilities of Contractor against City, its boards and commissions, and all of its officers, agents, members, employees, authorized representatives, assignees and transferees except for the Disputed Claims set forth in Paragraph 4, below, and continuing obligations described in Paragraph 6, 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, except for the Disputed Claims.

- 6. Guarantees and warranties for Work, and any other continuing obligation of Contractor, shall remain in full force and effect as specified in the Contract Documents.
- 7. Contractor shall indemnify, hold harmless and defend City, its boards and commissions, and all of its officers, agents, members, employees, authorized representatives, assignees and transferees from any and all claims, demands, actions, causes of action, obligations, costs, expenses, damages, losses and liabilities that may be asserted against them by any of Contractor's Suppliers and/or Subcontractors of any tier and/or suppliers to them for any and all labor, materials, supplies, and equipment used, or contemplated to be used, in the performance of the Contract.
- 8. Contractor hereby waives the provisions of California Civil Code Section 1542, which provides as follows:

A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR.

- 9. 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.
- 10. 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*****

CONTRACTOR	CITY
By: _____	By: _____
Title: _____	Title: _____
Date: _____	Date: _____

*(Include the following if Contractor identifies one or more Disputed Claims in Paragraph 4,
above.)*

APPROVED AS TO FORM:

Dennis J. Herrera, City Attorney

By: _____

Deputy City Attorney

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. Project Specific Requirements
 - 6. Forms for Certificates of Guarantee/Warranty

- B. Related Documents and Sections:
 - 1. Section 00 72 00 – General Conditions, Paragraphs 3.17, 8.03, 9.07, and 9.08.
 - 2. Section 01 77 00 – Closeout Procedures
 - 3. 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. Contractor shall identify the entity (“Guarantor”) that is providing each equipment warranty and each equipment system warranty, whether the entity is a supplier (which assembles various manufactured parts and then provides a warranty for the equipment system); a manufacturer (which may subcontract a certain part(s) but provides a warranty for the entire equipment system furnished or which provides a warranty for each individual piece of equipment furnished); or the Contractor itself.

- C. The Contractor shall comply with all quality and performance requirements for guarantees/warranties specified in the individual Specification Sections (Divisions 02 through 48).
- D. 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 by the entity identified in Subparagraph B., above, and all such other tests as required under this Contract.
- E. 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 Sections 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 9.07.F 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. Submit three copies of each guarantee/warranty form as shown in the Article, below, entitled "FORM OF GUARANTEE/WARRANTY FOR GUARANTEE TO REPAIR PERIOD" of this Section.
- C. Submit all Warranty material bound in commercial quality, 8-1/2 inch x 11 inch three-ring side binders with hardback, cleanable, plastic covers.
- D. The Contractor shall label the cover of each binder with typed or printed title WARRANTIES, with title of Contract; name, address and telephone number of Contractor and entity identified in Article 1.02.B, above; and name of Contractor's responsible principal employee.

- E. The Contractor shall provide a neatly typed Warranty Table of Contents as shown in the sample form provided in Article 1.06.A. of this Section.
- F. The Contractor shall separate each warranty with index tab sheets keyed to the Table of Contents listing and shall provide full information, 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 entity identified in Article 1.02B, above.

1.04 QUALITY ASSURANCE

- A. 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 to the Contractor for correction of defects under the law and in accordance with the General Conditions.

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. This paragraph modifies the term of the Guarantee to Repair Period specified in Paragraph 8.03.B of the General Conditions. All other provisions set forth in Paragraph 8.03 shall apply during the Guarantee to Repair Period, as amended by this Section.
- C. Promptly after receipt of written notice from the City, the Contractor shall remove, replace, or correct Work, or portion thereof, which is damaged or found to be defective and 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 agrees to reimburse the City for all costs incurred.

2. The City reserves the right to remove and store or dispose of 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, sell such defective items and shall account for the net proceeds 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 sale are insufficient to cover all amounts chargeable to the Contractor, the Contractor shall pay the difference to the City.

1.06 WARRANTY TABLE OF CONTENTS SAMPLE FORM / PROJECT-SPECIFIC REQUIREMENTS (NOT USED)

1.07 FORM OF GUARANTEE/WARRANTY FOR GUARANTEE TO REPAIR PERIOD

- A. For the Entire Contract, the Contractor shall submit a certificate covering the Guarantee to Repair Period as follows:

<p>GUARANTEE/WARRANTY FOR SFPUC PW-005(E)</p> <p>San Francisco Housing Authority Potrero Terrace Emergency Boiler and Distribution Piping Replacement</p> <p>We hereby guarantee/warrant that the work of this Contract has been completed in accordance with the requirements of all applicable Contract Documents.</p> <p>We agree to repair or replace any or all of our Work that may prove to be defective in its workmanship, material, or Contractor-furnished design within a period of twenty-four (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 which 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 excepted.</p> <p>In the event of our failure to comply with the above mentioned conditions within ten (10) days after being notified in writing by the City, we collectively or separately do hereby authorize the City to proceed to have such defective work repaired or replaced and made good at our expense, and we will honor and pay the costs and charges therefore upon demand.</p> <p>Signed _____ Date _____</p> <p>Contractor Name: _____</p> <p>Address: _____</p> <p>License No. _____</p> <p>Substantial Completion of the work was granted by the City on _____ (date)</p> <p>Signed: _____ Date: _____</p> <p>(City Representative)</p>
--

- B. Supplier/Manufacturer/Contractor 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
Submit separate Guarantee/Warranty certificates 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/Contractor Letterhead)

**GUARANTEE/WARRANTY FOR EQUIPMENT / EQUIPMENT SYSTEM
INSTALLED BY CONTRACTOR OR SUBCONTRACTOR**

_____ *(Name of Supplier or Manufacturer or Contractor)*, 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: **PW-005(E)** San Francisco Housing Authority Potrero Terrace Emergency Boiler and Distribution Piping Replacement

Date Installed: _____

Partial Utilization Date: _____

Date of Contract Substantial Completion: _____

This guarantee/warranty is effective upon date shown herein under, and shall remain effective for _____ years thereafter. The Supplier/Manufacturer/Contractor agrees to the warranty conditions as specified in the hereinabove referenced Contract.

Name and address of Supplier/Manufacturer (if Contractor is Guarantor, skip 4 lines):

Signed by Supplier's / Manufacturer's Agent: _____

Date: _____

Title _____

Name of Contractor: _____

Signed By: _____ Title: _____ Date: _____

Acknowledged by City Representative: _____ Date: _____

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

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.
- 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 (NOT USED)

END OF SECTION

Wong, Linda (BOS)

From: Hagan, Erin [EHagan@sfgwater.org]
Sent: Wednesday, January 21, 2015 5:52 PM
To: Wong, Linda (BOS)
Subject: RE: File No. 150008 - Emergency Work - 1099 Connecticut Street

Hi Linda,

Notice to proceed on this work was issued on Sept. 3, 2014. Work is expected to be completed by Jan. 23, 2015. The work entails replacement and repairs to the space heating boiler and distribution piping at residential housing at 1099 Connecticut Street.

Thanks,
Erin

Erin Hagan
Policy and Government Affairs Manager
San Francisco Public Utilities Commission
Office: 415-554-0706
Cell: 415-535-3542

From: Wong, Linda (BOS) [mailto:linda.wong@sfgov.org]
Sent: Wednesday, January 21, 2015 4:03 PM
To: Hagan, Erin
Subject: File No. 150008 - Emergency Work - 1099 Connecticut Street

Hi Erin,

The is regarding the proposed Resolution on the above subject matter that is scheduled to be heard at Wednesday's Budget & Finance Committee meeting.

Page 3, line 4 states:

"FURTHER RESOLVED, That actions taken to date by the San Francisco Public Utilities Commission to address such emergency work and resolve the emergency condition are hereby ratified; and, be it"

Please provide us in writing the specific actions that were taken to date to address the emergency work. We want to ensure the Supervisors have this information prior to acting on this matter. If this is not feasible, we kindly request that an amendment be made at Wednesday's meeting to remove above clause.

Additionally, the following clause was incorporated to the proposed legislation:

"FURTHER RESOLVED, That within thirty (30) days of the emergency contract being fully executed by all parties the San Francisco Public Utilities Commission shall provide the final emergency contract to the Clerk of the Board for inclusion into the official file."