



WATER DEPARTMENT

BID DOCUMENTS

FOR

**FLEMING HILL WATER TREATMENT PLANT FLOCCULATION AND  
SEDIMENTATION BASINS 1 & 8 EQUIPMENT UPGRADE PROJECT – WT7093**

CITY COUNCIL

Bob Sampayan, Mayor

Katy Meissner, Vice Mayor  
Pippin Dew-Costa  
Jesus Malgapo

Robert H. McConnell  
Hermie Sunga  
Rozanna Verder-Aliga

Mike Malone  
Water Director  
202 Fleming Hill Road  
Vallejo, CA 94589  
(707) 648-4308



Prepared under the direction of:  
Mike Malone, Water Director

**Bid Opening: 2:00 p.m.  
Date: October 11, 2018  
at Public Works Conference  
Room, on the 4th Floor, City  
Hall**

**Pre-bid Conference: 2:00 p.m.  
Date: October 2, 2018  
at Fleming Hill WTP  
Conference Room, 202 Fleming  
Hill Rd, Vallejo, CA 94589**

*This page intentionally left blank*

## TABLE OF CONTENTS

	<u>Page</u>
NOTICE TO CONTRACTORS .....	1
INSTRUCTIONS TO BIDDERS .....	5
PROPOSAL FORM .....	9
BID SHEET .....	11
BIDDER'S BOND .....	15
CONTRACTOR QUALIFICATIONS .....	17
DESIGNATION OF SUBCONTRACTORS .....	19
NON-COLLUSION AFFIDAVIT FOR CONTRACTOR OR SUBCONTRACTOR .....	21
NONDISCRIMINATION CLAUSE.....	23
CONTRACT .....	25
FAITHFUL PERFORMANCE BOND .....	31
PAYMENT (LABOR AND MATERIALS) BOND .....	33
CONTRACTOR QUALIFICATION QUESTIONNAIRE .....	35
CONTRACT CHANGE ORDER NO. ....	41

SECTION A: SPECIAL PROVISIONS

1.	Location of Work.....	A-1
2.	Scope of Work.....	A-1
3.	Pre-Construction Conference.....	A-1
4.	Underground Utilities.....	A-1
5.	Materials and Tests.....	A-1
6.	City Furnished Materials.....	A-2
7.	Water.....	A-2
8.	Sequence of Construction to Maintain Traffic.....	A-2
9.	Construction on Private Property.....	A-2
10.	Watermain Tie-Ins.....	A-2
11.	As-Built Drawings.....	A-3
12.	Hazardous Waste in Excavation.....	A-3

SECTION B: GENERAL PROVISIONS

1.	Definitions and Terms.....	B-1
2.	Proposal Requirements and Conditions.....	B-12
3.	Award and Execution of Contract.....	B-15
4.	Scope of Work.....	B-17
5.	Control of Work.....	B-22
6.	Control of Materials .....	B-30
7.	Legal Relations and Responsibilities.....	B-41
8.	Prosecution and Progress.....	B-77
9.	Measurement and Payment.....	B-95

SECTION C: WAGE AND EQUIPMENT RATES

1.	Prevailing Wage Rates.....	C-1
2.	Payroll Records.....	C-1
3.	Equipment Rental Rates.....	C-2

## SECTION D: TECHNICAL SPECIFICATIONS

### Division 1 – General Requirements

01 00 25	Measurement and Payment
01 11 00	Summary of Work
01 11 20	Site Conditions
01 14 00	Work Sequence and Constraints
01 31 19	Project Meetings
01 32 00	Construction Schedule
01 33 00	Submittals
01 34 00	Requests for Information and Clarifications
01 35 24	Project Safety Requirements
01 50 00	Construction Facilities and Utilities
01 57 19	Environmental Controls
01 61 00	Materials and Equipment
01 65 00	Shipment, Protection, and Storage
01 71 13	Mobilization and Demobilization
01 75 17	Equipment and System Testing
01 77 00	Contract Closeout Procedures
01 78 39	Record Drawings
01 89 00	Restoration of Improvements
01 91 00	Facility Start-up and Commissioning

### Division 2 – Site Construction

02 42 00	Demolition and Abandonment
02 42 13	Recyclable Materials

### Division 3 – Concrete

03 30 00	Cast-in-Place Concrete
03 60 00	Grout

Division 5 – Metals

05 50 01 Metal Fabrications

05 50 01 Anchor Bolts and Anchoring Devices

Division 7 – Finished

07 90 00 Sealants and  
Caulking

Division 11 – Equipment

11 00 00 General Requirements for Equipment

11 05 20 Equipment Mounting

Division 40 – Process Integration

40 05 51 General Requirements for Valves

40 05 58 Valves and Appurtenances

40 05 59.33 Sluice Gate Valve

40 23 00 Piping Systems

Division 46 – Water and Wastewater

Equipment

46 41 33 Horizontal Flocculation Equipment

46 43 11 Chain and Flight Clarifier Equipment



CITY OF VALLEJO  
WATER DEPARTMENT

## NOTICE TO CONTRACTORS

NOTICE IS HEREBY GIVEN THAT SEALED BIDS will be received at the office of the City Clerk, third (3rd) floor, City Hall, Vallejo, California, during the business hours of 8:30 AM through 5:00 PM, Monday through Friday, holidays excepted, until the hour of **2:00 p.m. on October 11, 2018**, at which time they will be publicly opened and read aloud in the Public Works Conference Room, fourth (4th) floor of said City Hall for FLEMING HILL WATER TREATMENT PLANT FLOCCULATION AND SEDIMENTATION BASINS 1 & 8 EQUIPMENT UPGRADE PROJECT – WT7093, City of Vallejo, County of Solano, California according to the drawings and specifications prepared by City of Vallejo – Water Department.

The work to be done includes:

**The Contractor shall furnish all labor, materials, equipment, and incidentals as shown, specified and required to remove and replace the existing flocculation, and chain and flight sludge collection systems for basins 1 and 8. Contractor shall refer to plans and specification and bill of materials for City furnished materials and equipment.**

The bidder shall include in his bid and provide all labor, tools and materials for a complete and working project in conformance with the intent shown on the drawings and specified herein.

Bids are required for the entire work described herein. A mandatory pre-bid conference will be held on October 2, 2018 at 2:00 p.m., in the Fleming Hill WTP Conference Room, 202 Fleming Hill Rd, Vallejo, Vallejo, California. This meeting is to inform bidders of project requirements and subcontractors of subcontracting and material supply opportunities.

Time of completion of the work is 150 working days from the date of issuance of the Notice to Proceed work by the City.

No bid will be received unless it is made on the proposal forms included in these proposed Contract Documents. Each bid must be accompanied by cash, a cashier's check, certified check or bidder's bond made payable to the City of Vallejo in the amount of **ten percent (10%)** of the total bid amount. Bid bonds shall be issued by a corporate surety duly admitted and authorized to issue bonds and undertakings by the State of California and on the form provided by the City of Vallejo.

Pursuant to Section 1700, and following, of the California Labor Code, the Contractor shall pay not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations. Copies of such prevailing rate of per diem wages are on file at the office of the City of Vallejo, Water Department, 202 Fleming Hill Road, Vallejo, CA 94589. Those copies shall be made available to any interested party upon request. The Contractor shall forfeit, as penalty to the City of Vallejo, Fifty Dollars (\$50.00) for each calendar day or portion thereof, for each workman paid less than the stipulated prevailing rates for any work done under the contract by it or by any subcontractor under it, in violation of the provisions of such Labor Code.

The Contractor shall post a copy of the general prevailing rates per diem wages in a conspicuous place at the job site forthwith upon undertaking the public work called for herein. The Contractor shall also keep an accurate certified payroll record in accordance with requirements set forth in Section 1776 of the Labor Code of the State of California and these Contract Documents.

No contractor or subcontractor may be listed on a bid proposal for a public works project unless registered with the State of California Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].

No contractor or subcontractor may be awarded a contract for public work on a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. All contractors and subcontractors must furnish electronic certified payroll records directly to the Labor Commissioner (aka Division of Labor Standards Enforcement).

Bidders are advised that this project is subject to all federal, state and local nondiscrimination laws including Vallejo Municipal Code sections 2.72.030 and 2.72.040.

Proposed Contract Documents may be examined at:

Bay Area Builders Exchange (Alameda_ 3055 Alvarado St., San Leandro, CA 94577	Solano-Napa Builders Exchange 135 Camino Dorado Napa, CA 94558
Bay Area Builders Exchange (Contra Costa) 2440 Stanwell Drive Concord, CA 94520	Sacramento Builders Exchange 1331 T Street Sacramento, CA 95814
San Francisco Builders Exchange 850 So. Van Ness Avenue #13 San Francisco, CA 94110	North Coast Builders Exchange 1030 Apollo Way Santa Rosa, CA 95407



Marin Builders Association 660 Las Gallinas Avenue San Rafael, CA 94903	Small Business Exchange 703 Market Street, Suite 1000 San Francisco, CA 94103
Peninsula Builders Exchange 735 Industrial Road #100 San Carlos, CA 94070	Placer County Builders Exchange 231 Cherry Avenue, Suite 101 Auburn, CA 95603-4840
Builders Exchange of Santa Clara 400 Reed Street Santa Clara, CA 95050	Nor-Cal Bidders Exchange 4740 East Second Street #29 Benicia, CA 94510
Construction Bidboard 4420 Hotel Circle Court #215 San Diego, CA 92108	McGraw Hill-Dodge Plan Room 4020 Lennane Dr Bldg 2 Suite 104 Sacramento, CA 95834-1987

The Plans, Specifications, Contract Documents and proposal forms may be obtained at the office of the Water Director, City Hall, 202 Fleming Hill Road, Vallejo, California, with a charge of Fifty dollars (\$ 50.00) which is not refundable.

Documents are also available online at [www.cityofvallejo.net](http://www.cityofvallejo.net). Interested bidders may register as Planholders (only Planholders receive information regarding addenda, and other notices from the City) online via the City website (at no cost) or upon purchase of plans and specifications from the City. Users of documents posted on the internet in electronic form are cautioned that the City of Vallejo does not assume any liability or responsibility based on these electronic files for any defective or incomplete copying, excerpting, scanning, faxing or downloading of the contract documents.

Complete sets of documents shall be used in preparing Bids; neither City nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of documents.

The bid bonds for the three acceptable lowest bidders shall be retained until the City Council has awarded a contract to the successful bidder. All other bidder's bonds shall be returned to the bidder.

Pursuant to Section 22300 of the Public Contract Code, the Contractor may substitute a deposit of securities in lieu of the City of Vallejo withholding any monies to ensure Contractor's performance under the Contract, or alternatively, request that the City of Vallejo make payment of retentions earned directly to an escrow agent at the expense of Contractor. The provisions of Public Contract Code section 22300 are incorporated herein by reference as though set forth in full, and shall govern the substitution of securities and/or escrow account.

The City of Vallejo reserves the right to reject any or all bids or portions thereof, to accept

a bid or portion thereof or to waive any minor irregularity.

Bidders and Contractor shall be licensed in accordance with the provisions of Chapter 9, Division III, of the Business and Professions Code, Section 7000 et seq., known as the Contractors License Law. The license classification required for this project is **A**.

DAWN G. ABRAHAMSON  
City Clerk

Dated: \_\_\_\_\_

CITY OF VALLEJO  
WATER DEPARTMENT

**INSTRUCTIONS TO BIDDERS**

- 1) All portions of the proposal form must be completed before the bid is submitted. Failure to do so may result in the bid being rejected as non-responsive. Attached to and submitted with the proposal form, bidder must provide the completed:
  - (a) Contractor Qualifications,
  - (b) Designation of Subcontractors,
  - (c) Non-Collusion Affidavit for Contractors or Subcontractor,
  - (d) Non-Discrimination Clause,
  - (e) The appropriate bid security.
  - (f) Addenda, if any

Failure to submit all required documents may result in the bid being rejected as non-responsive.

- 2) An original of the proposal form shall be filled in and submitted as the bid.
- 3) Sealed bids will be addressed to:  
Dawn G. Abrahamson, City Clerk  
555 Santa Clara Street  
P.O. Box 3068  
Vallejo, California 94590

- 4) City of Vallejo has obtained report(s):

N/A

The report(s) may contain facts that may materially affect bidders' bids.

The "technical data" may contain facts that may materially affect Bidders' bids. Bidder is responsible for any interpretation or conclusion Bidder draws from any "technical data" or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

In addition, City of Vallejo has constructed other public works projects throughout the City, and obtained reports and other information in the course of the design and construction of those other public works construction projects, all of which may contain facts that may materially affect bidders' bids. Bidders are strongly

encouraged to inspect all of City's reports, records and documents referred to above. Said reports and documents will be made available upon written request at City of Vallejo Water Department, 202 Fleming Hill Road, Vallejo, CA 94589 for inspection and copying at bidders' sole cost and expense, during normal working hours.

- 5) Written questions will be the only questions that receive an official response from the City. Written questions may be submitted:
  - a) By Fax (707) 648-4060; or
  - b) By E-mail to the Project Manager
  - c) By Letter addressed to:

FLEMING HILL WATER TREATMENT PLANT FLOCCULATION  
AND SEDIMENTATION BASINS 1 & 8 EQUIPMENT UPGRADE  
PROJECT – WT7093  
City of Vallejo Water Department  
202 Fleming Hill Road  
Vallejo, CA 94589

Bidders are advised that oral or written communication from the City not in the form of an official addendum do not alter the bid plans or specifications.

- 6) The cut off time for submission of bid questions is 5:00 P.M. (Pacific Time) on Wednesday, October 3, 2018. Any questions received after this time will not be responded to.
- 7) If a pre-bid conference has been scheduled at the site of the work, all bidders, subcontractors, material suppliers and others who may be working on the work of improvement are strongly encouraged to attend this pre-bid conference. Due to the facts and circumstances of this particular project, the pre-bid conference may be the only opportunity to conduct the pre-bid investigation of the site and satisfy the pre-bid obligations set forth in these Contract Documents. If a bidder (or others) attend the entirety of a scheduled pre-bid conference and need additional time to complete their investigation of the site or other pre-bid obligations set forth in these Contract Documents, bidder must notify the City in writing, via certified or registered mail, no less than two work days after the scheduled pre-bid conference, to request additional time. The written request must include an estimate of the amount of additional time required by bidder.
- 8) Following the public opening of bids, the City may request in writing that the apparent low bidder complete the Contractor Qualification Questionnaire included in these Contract Documents and furnish all required supporting documentation to enable the City to determine whether the apparent low bidder is responsible and/or qualified to perform the work described in the Contract Documents. By submission of a bid, bidder agrees to complete the Contractor Qualification Questionnaire,

furnish all required attachments, sign the Contractor Qualification Questionnaire, all in strict conformance with the requirements of the Contract Documents and Contractor Qualification Questionnaire, and return to the City within five (5) working days of City's written request. If bidder fails or refuses to complete the Contractor Qualification Questionnaire, furnish all required attachments, sign the Contractor Qualification Questionnaire, and return it to the City within five (5) working days of City's written request, bidder will not be considered for award of the contract, and further, bidder agrees that the City may award the Contract to another bidder or call for new bids. In such event, the bidder shall be liable to the City for the difference between the amount of the disqualified bid and the larger amount for which the City procures the work plus all of the City's costs, damages, expenses and liabilities.

- 9) If for any reason the City elects to not award the contract to the apparent low bidder, the City may request in writing that the apparent second lowest bidder complete the Contractor Qualification Questionnaire and furnish all required supporting documentation as required by the preceding paragraph, to enable the City to determine whether the second low bidder is qualified to perform the work described in the Contract Documents. If for any reason the City elects to not award the contract to the apparent second lowest bidder, the City may request the third lowest bidder complete the Contractor Qualification Questionnaire and furnish all required supporting documentation, and so on.
- 10) If the City receives from a bidder within the time set forth in these Contract Documents, a complete Contractor Qualification Questionnaire and all required supporting documentation as required by the Contract Documents, and if the City determines that a bidder is not qualified to perform the work required by the Contract Documents, and if the City elects to not award the Contract to that bidder, the City will promptly return that bidder's bid security.
- 11) Bid Protests - Only Bidders may protest Bids. All Bid protests must be submitted in writing along with a non-refundable \$2,500.00 Bid protest fee.
  - a) All Bid protests must be addressed to Water Director, Water Department, City of Vallejo, 202 Fleming Hill Road, City of Vallejo, CA 94589  
re: FLEMING HILL WATER TREATMENT PLANT FLOCCULATION AND SEDIMENTATION BASINS 1 & 8 EQUIPMENT UPGRADE PROJECT – WT7093 and received, by said Director along with the non-refundable Bid protest fee, by the Bid Protest Deadline. The Bid protest submitted to the Director shall include one original and two complete copies. The original Bid protest and two complete copies shall be transmitted to the Director via certified mail, return receipt, or hand delivery.
  - b) The Bid Protest Deadline shall be the earlier of any of the following that may apply:
    - (i) If the Bid protest is based on the responsiveness of a particular Bid

or the responsibility of a particular Bidder, the Bid Protest Deadline is 5:00 p.m. on the 4th business day after the Bid opening;

- (ii) If the Bid protest is based on the City's determination that a Bid is not responsive or a Bidder is not responsible, then the affected Bidder's Bid Protest Deadline is 5:00 p.m. on the 4th business day after the date of the City's notice to the affected Bidder.

c) Additionally, the following shall apply to all Bid protests:

- (i) The written bid protest must state all facts and each legal basis for the protest.
- (ii) The written bid protest must specifically identify each portion of each document that forms the basis for the protest and include a copy of each document.
- (iii) The protest must include the name, address and telephone number of the person representing the protesting party.
- (iv) Before the Bid Protest Deadline, the Bidder protesting a Bid shall transmit to all other parties having a potential interest that may be adversely affected by the outcome of the protest, a complete copy of the Bid protest and all supporting documents, including but not limited to all other Bidders who may have a reasonable prospect of losing or obtaining an award of the Contract depending on the outcome of the protest.
- (v) The procedures and time limits set forth in this section for Bid Protests are strictly construed and are Bidder's sole and exclusive remedy in the event of a Bid protest. Bidders' failure to strictly comply with these procedures and time limits shall constitute a waiver of any right to further pursue the Bid protest, including but not limited to, the filing of a Government Code Claim or legal proceedings.
- (vi) A Bidder may not rely on a Bid protest submitted by another Bidder, but must timely pursue its own Bid protest.

12) Liquidated damages that may be assessed by City of Vallejo for late completion is TWO THOUSAND DOLLARS (\$2,000.00) for each calendar day delay.

CITY OF VALLEJO  
WATER DEPARTMENT

**PROPOSAL FORM**

FOR THE

**FLEMING HILL WATER TREATMENT PLANT FLOCCULATION AND  
SEDIMENTATION BASINS 1 & 8 EQUIPMENT UPGRADE PROJECT – WT7093**

TO: The Honorable Mayor and City Council  
City of Vallejo  
Vallejo, California 94590

Name of Bidder: \_\_\_\_\_

Business Address: \_\_\_\_\_

Place of Residence: \_\_\_\_\_

Any person or entity submitting a bid on this project to engage in the business or act in the capacity of a contractor shall be licensed as a contractor in accordance with the provisions of Division 3, Chapter 9 of the California Business and Professions Code.

Contractor's License No.: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

Contractor's Classification: \_\_\_\_\_

Name on Contractor's License: \_\_\_\_\_

DIR Registration No. \_\_\_\_\_ Expiration Date: \_\_\_\_\_

City of Vallejo Business License Number: \_\_\_\_\_

Business Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

Place of Residence: \_\_\_\_\_

\_\_\_\_\_ Phone: \_\_\_\_\_

The work to be done consists of:

The Contractor shall furnish all labor, materials, equipment, and incidentals as shown, specified and required to remove and replace the existing flocculation, and chain and flight sludge collection systems for basins 1 and 8. Contractor shall refer to plans and specification and bill of materials for City furnished materials and equipment.

The undersigned, as bidder, declares that the only persons or parties interested in this proposal as principals are those named herein; that this proposal is made without collusion with any other person, firm, or corporation; that he/she has carefully examined the location of the proposed work, the annexed proposed form of contract, and the plans therein referred to, and all of the Contract Documents; and he/she proposes and agrees if this proposal is accepted, that he/she will contract with the City of Vallejo, in the form of the copy of the contract annexed hereto, to provide all necessary labor, materials, machinery, tools, apparatus and other means of construction, and to do all the work and furnish all the materials specified in the Contract, in the manner and time therein prescribed, and according to the requirements of the Engineer as therein set forth, and that he/she will take in full payment therefore the following item prices, to wit:

NOTE: The quantities following are approximate only and will be used as a basis for the comparison of bids.

An (s) listed after a Bid Schedule description item, if any, indicates items that are considered "Specialty Items" as defined in Section 8-1.01 of the General Provisions.



CITY OF VALLEJO  
 WATER DEPARTMENT  
 ENGINEERING DIVISION

**BID SHEET**

FOR THE

**FLEMING HILL WATER TREATMENT PLANT FLOCCULATION AND  
 SEDIMENTATION BASINS 1 & 8 EQUIPMENT UPGRADE PROJECT – WT7093**

<u>ITEM No.</u>	<u>DESCRIPTION OF ITEM</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>TOTAL AMOUNT</u>
1	Mobilization/Demobilization	1	LS	\$	\$
2	Traffic Control	1	LS	\$	\$
3	Verification of Existing Utilities and Facilities	1	LS	\$	\$
4	Demolition, Salvage and Abandonment	1	LS	\$	\$
4	Installation of Flocculation Equipment	1	LS	\$	\$

<u>ITEM No.</u>	<u>DESCRIPTION OF ITEM</u>	<u>ESTIMATED QUANTITY</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>TOTAL AMOUNT</u>
5	Installation of Chain and Flight Equipment	1	LS	\$	\$
6	Installation of Miscellaneous Equipment	1	LS	\$	\$
7	Pressure and Leakage Testing and Disinfection of Pipe	1	LS	\$	\$
8	Startup and Testing	1	LS	\$	\$

**TOTAL BID SUMMARY**

Total Bid \$ \_\_\_\_\_  
(IN FIGURES)

Total Bid \$ \_\_\_\_\_  
(IN WORDS)

BIDDER'S SIGNATURE \_\_\_\_\_

The Contract, if it is awarded, shall be awarded to the Contractor submitting the lowest total bid that complies with these Contract Documents.

In case of discrepancy between the unit prices and the total amount, the unit prices shall prevail, except as provided in (a) or (b), as follows:

- (a) If the amount set forth as a Unit Price for a said item is not readable or otherwise not clear, or is omitted, or is the same amount as the entry in the Total Amount column, then the amount set forth in the Total Amount column for the line item shall prevail and shall be divided by the Estimated Quantity for the said item and the price thus obtained shall be the Unit Price amount.
- (b) (Decimal Errors) If the total of the entered Unit Price multiplied by the given Estimated Quantity is **exactly** off by a decimal factor (i.e., ten, one hundred, etc. or, one-tenth, one-hundredth, etc.) from the entered Total Amount, the discrepancy will be resolved by using the entered Unit Price or entered Total Amount, whichever most closely approximates (by percentage) the Unit Price or Total Amount in the City -Engineer's Cost Estimate.
- (c) In order for a bid to be valid, all aspects of the Bid Sheet must be filled out completely. An incomplete Bid Sheet is grounds for bid reject.

The City of Vallejo desires wherever possible to hire qualified City of Vallejo residents to work on City projects. Contractors, subcontractors, consultants, and developers will, wherever possible, solicit proposals from qualified local firms and will, wherever possible, employ qualified local residents to work on City projects.

The bidder agrees that if the bidder is selected as the apparent lowest responsible bidder, and the bidder fails to sign the Contract and furnish the Performance Bond, the Payment Bond, Certificates of Insurance, and other required items within the time limit specified in the Contract Documents, the City of Vallejo may award the work to another bidder or call for new bids. In such event, the bidder shall be liable to the City for the difference between the amount of the disqualified bid and the larger amount for which the City procures the work plus all of the City's costs, damages, expenses and liabilities arising from bidder's failure to sign the Contract and/or furnish the required documents.

Bidder declares that he/she/it has not accepted any bid from any subcontractor or vendor through any bid depository, the by-laws, rules or regulations of which prohibit or prevent the bidder from considering any bid from any subcontractor which is not processed through said bid depository or which prevent any subcontractor or vendor from bidding to any contractor who does not use the facilities of or accept bids from or through such bid depository.

ACCOMPANYING THIS PROPOSAL is \_\_\_\_\_

\_\_\_\_\_  
(in an amount of ten percent (10%) of the total bid)

NOTICE: Insert the words CASH (\$\_\_\_\_\_), CASHIER'S CHECK, BIDDER'S BOND, or CERTIFIED CHECK, as the case may be.

THE NAMES OF ALL PERSONS INTERESTED IN THE FOREGOING PROPOSAL AS PRINCIPALS ARE AS FOLLOWS:

IF THE BIDDER OR OTHER INTERESTED PERSON is a corporation, state legal name of corporation and state where incorporated, also names of the President, Secretary, Treasurer, and Manager thereof; if a co-partnership, state true name of firm, also names of all individual co-partners composing the firm; if bidder or other interested person is an individual, state first and last names in full.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

LICENSED IN ACCORDANCE WITH THE CONTRACTORS' LICENSE LAW OF THE STATE OF CALIFORNIA (BUSINESS AND PROFESSIONS CODE) SECTION 7000 et seq. PROVIDING FOR THE REGISTRATION OF CONTRACTORS,  
License No.: \_\_\_\_\_

Sign Here: \_\_\_\_\_

\_\_\_\_\_  
(Printed or typed name of Bidder)

Dated: \_\_\_\_\_

NOTE: If the bidder is a corporation or a co-partnership, the legal name of the firm shall be set forth above, together with the signature of the officer or partner authorized to sign contracts for the firm.

CITY OF VALLEJO  
WATER DEPARTMENT  
ENGINEERING DIVISION

**BIDDER'S BOND**

KNOW ALL MEN/WOMEN BY THESE PRESENTS,

THAT we, \_\_\_\_\_

\_\_\_\_\_, as Principal, and

\_\_\_\_\_,

as Surety, are held and firmly bound unto the City of Vallejo, hereinafter called CITY, in the penal sum of TEN PERCENT (10%) OF THE TOTAL AMOUNT OF THE BID of the Principal above named, submitted by said Principal to the City of Vallejo, for the work described below, for the payment of which sum in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, administrators, and executors and successors, jointly and severally, firmly by these presents; in the sum of:

\$ \_\_\_\_\_

THE CONDITION OF THIS OBLIGATION IS SUCH THAT,

WHEREAS, the Principal has submitted the above-mentioned bid to the City of Vallejo, for certain construction specifically described as follows, for which bids are to be opened at Vallejo, California, on October 11, 2018, for the

The Contractor shall furnish all labor, materials, equipment, and incidentals as shown, specified and required to remove and replace the existing flocculation, and chain and flight sludge collection systems for basins 1 and 8. Contractor shall refer to plans and specification and bill of materials for City furnished materials and equipment.

NOW, THEREFORE, if the aforesaid Principal is awarded the contract and within the time and manner required under the Specifications, after the prescribed forms are presented to him/her for signature, enters into a written contract, in the prescribed form, in accordance with the bid, and files the two bonds with the City of Vallejo, one to guarantee faithful performance and the other to guarantee payment for labor and materials, as required by law, then this obligation shall be null and void; otherwise, it shall be and remain in full force and virtue.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in such suit including a reasonable attorney's fee to be fixed by the court.

IN WITNESS WHEREOF, we have hereunto set our hands and seals on this \_\_\_\_ day  
of \_\_\_\_\_, 20\_\_\_\_\_.

\_\_\_\_\_

\_\_\_\_\_

Principal

\_\_\_\_\_

\_\_\_\_\_

Surety

Address \_\_\_\_\_

\_\_\_\_\_

NOTES:

1. Signature of those executing for the Surety must be properly acknowledged.

CITY OF VALLEJO  
WATER DEPARTMENT  
ENGINEERING DIVISION

**CONTRACTOR QUALIFICATIONS**

This form must be completed, signed by bidder, and submitted to City of Vallejo with bidder's bid. Failure to complete, sign and submit with bidder's bid may result in bidder's bid being rejected as not responsive.

City has determined that bidders must meet the following minimum qualifications to bid the work of improvement contemplated herein:

1. Have possessed a valid, active and in good standing, State of California Department of Consumer Affairs, Contractor's License Board Classification A, for a minimum of five (5) continuous years prior to the date of bid opening.
2. Not have any pending disciplinary proceedings or investigations by the Contractors State License Board.
3. Have completed to the public owner's satisfaction, no less than two (2) public works projects in water treatment sector in the State of California, each with an original contract price of no less than \$750,000 within the past five years prior to the date of bid opening.
4. Have completed to the public owner's satisfaction, a public works project within an existing water treatment plant that required coordination with the owner's operation staff to minimize interference and interruption of the normal operation of the owner's existing facilities.
5. Currently (as of the date of bid opening) or within the past five years, not have any suspensions, disbarments, or similar proceedings (including stipulated agreements), restricting, limiting or prohibiting bidder from bidding or performing other public works for any other public agency.

The City reserves the right to make the sole and final determination of the contractors' qualifications.

I, being the \_\_\_\_\_ (insert title) of bidder herein, declare that bidder meets all of the minimum criteria set forth above.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Date



## DESIGNATION OF SUBCONTRACTORS

In compliance with the provisions of Section 4100 through 4114, inclusive, of the Public Contract Code, and any amendments thereto, each bidder shall set forth in his or her bid, the name and location of the place of business of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of 1 percent (0.5%) of the prime contractor's total bid, or ten thousand (\$10,000) whichever is greater, and the dollar amount of the work which will be done by each subcontractor under this act. The prime contractor shall list only one subcontractor for each portion as is defined by the prime contractor in his or her bid.

Prime Contractor Self Perform requirement is **50%** (exclusive of specialty items). The Engineer shall use the Designation of Subcontractors form to determine the percentage of contract work amount performed by the contractor.

NAME	LOCATION BUSINESS	OF	CA CONTR. LICENSE NO.	CA DIR REGIST. NO.	DESCRIPTION OF SUB WORK	BID ITEMS	DBE (Y/N)	DBE CERT. NO.	DOLLAR AMOUNT OF SUB WORK (\$\$\$)

**NOTICE TO BIDDERS:** Listing of subcontractors is mandatory under Sections 4100-4113 of the California Public Contract Code. If this form is incomplete or inaccurate, your bid may be rejected.

## DESIGNATION OF SUBCONTRACTORS

NAME	LOCATION BUSINESS	OF	CA CONTR. LICENSE NO.	CA DIR REGIST. NO.	DESCRIPTION OF SUB WORK	BID ITEMS	DBE (Y/N)	DBE CERT. NO.	DOLLAR AMOUNT OF SUB WORK (\$\$\$)

**NON-COLLUSION AFFIDAVIT FOR CONTRACTOR OR SUBCONTRACTOR**

STATE OF CALIFORNIA )  
 ) ss  
COUNTY OF \_\_\_\_\_)

\_\_\_\_\_ declares and says:

1. That he/she is the (owner, partner, representative, or agent) of \_\_\_\_\_ (hereinafter referred to as (contractor) or (subcontractor))
2. That he/she is fully informed regarding the preparation and contents of this proposal for certain work in the City of Vallejo, State of California.
3. That his/her proposal is genuine and is not collusive or a sham proposal.
4. That any of its officers, owners, agents, representatives, employees, or parties in interest, including this affiant, has not in any way colluded, conspired, connived or agreed, directly or indirectly, with any other bidder, firm, or person to submit a collusive or sham proposal in connection with such contract or to refrain to submitting a proposal in connection with such contract, or has in any manner, directly or indirectly, sought by unlawful agreement or connivance with any other bidder, firm, or person to fix the price or prices in said proposal, or to secure through collusion, conspiracy, connivance, or unlawful agreement any advantage against the City of Vallejo or any person interested in the proposed contract; and,
5. That the price or prices quoted in the proposal are fair and proper and are not tainted by any collusion, conspiracy, connivance, or unlawful agreement on the part of the bidder or any of its agents, owners, representatives, employees, or parties in interest, including this affiant.

I certify (or declare) under penalty of perjury, that the foregoing is true and correct.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, at \_\_\_\_\_, California.

Signed: \_\_\_\_\_

Title: \_\_\_\_\_

License Number  
and Classification: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

*This page intentionally left  
blank*

CITY OF VALLEJO  
WATER DEPARTMENT  
ENGINEERING DIVISION

**NONDISCRIMINATION CLAUSE**

Contractor shall refrain from discriminatory employment practices on the basis of race, religious creed, color, sex, national origin, ancestry, disability, medical condition, age, marital status or sexual orientation of any employee of, or applicant for employment with, Contractor.

Contractor further agrees as follows:

- (a) That the Contractor shall not because of the race, religious creed, color, sex, national origin, ancestry, disability, medical condition, age, marital status or sexual orientation of any person, refuse to hire or employ any person, or to bar or discharge any person from employment, or to discriminate against any person in compensation, or in the terms, conditions, or privileges of employment, and every employee shall receive equal opportunity for employment and shall be granted equal treatment with respect to compensation, terms, conditions, or other privileges of employment without regard to his race, religious creed, color, sex, national origin, ancestry, disability, medical condition, age, marital status or sexual orientation.
- (b) That the Contractor shall post in conspicuous places where they may be seen by every employee or applicant for employment notices, in such form as shall be prescribed by the City Manager, the provisions set forth above.
- (c) That the Contractor shall in all solicitations or advertisements for employment applications include in such solicitation or advertisement language which will reasonably convey notice that every qualified applicant will receive consideration for employment without regard to his race religious creed, color, sex, national origin, or ancestry, disability, medical condition, age, marital status or sexual orientation.
- (d) That the Contractor shall give written notice, in such form as shall be prescribed by the City Manager, of the Contractor's commitments under this contract to any labor union or employee association with which the Contractor has a collective bargaining contract, or other employer - employee labor agreement or understanding."

Contractor shall include the provisions of this Nondiscrimination Clause in every subcontract, including subcontracts for the provision of materials or equipment.

By submitting a bid, the Contractor agrees to comply with all the non-discrimination provisions contained in the Vallejo Municipal Code.

---

BIDDER'S SIGNATURE

---

DATE

**FLEMING HILL WATER TREATMENT PLANT FLOCCULATION AND  
SEDIMENTATION BASINS 1 & 8 EQUIPMENT UPGRADE PROJECT – WT7093**

CITY OF VALLEJO  
WATER DEPARTMENT  
ENGINEERING DIVISION

**CONTRACT  
FOR**

**FLEMING HILL WATER TREATMENT PLANT FLOCCULATION AND  
SEDIMENTATION BASINS 1 & 8 EQUIPMENT UPGRADE PROJECT – WT7093**

THIS CONTRACT ("Contract") made and concluded in duplicate this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_, at Vallejo, California, by and between the City of Vallejo, a municipal corporation of the State of California, acting by and through its City Council, hereinafter called City, and \_\_\_\_\_, [enter type of entity] hereinafter called CONTRACTOR.

WITNESSETH:

WHEREAS, the City Council of said City heretofore caused plans and specifications for the work hereinafter mentioned to be prepared, and thereafter did approve and adopt said plans and specifications; and,

WHEREAS, the City Council of said City did cause to be noticed for the time and in the manner required by law a notice inviting sealed bids for the performance of said work; and,

WHEREAS, Contractor, in response to such notice, submitted to the City Council of said City within the time specified in said notice, and in the manner provided for therein, a sealed bid for the performance of the work specified in said plans and specifications, which said bid and proposal, and the other bids and proposals submitted in response to said notice, the City Council of City, by and through its authorized representatives, publicly opened and canvassed in the manner provided by law; and,

WHEREAS, Contractor was the lowest responsible bidder for the performance of said work, and said City Council of City, as a result of the canvass of said bids, did determine and declare Contractor to be the lowest responsible bidder for the work and award to it a contract therefore.

NOW, THEREFORE, in consideration of the above, it is mutually agreed between the parties hereto as follows, to wit:

1. SCOPE OF WORK

The Contractor shall furnish all labor, materials, equipment, and incidentals as shown, specified and required to remove and replace the existing flocculation, and chain and flight sludge collection systems for basins 1 and 8. Contractor shall refer to plans and specification and bill of materials for City furnished materials and equipment.

The Contractor shall provide all labor, tools, and materials for a complete and working project in conformance with the intent shown on the drawings and specified herein and as provided for and set forth in said plans, specifications, and any addendum that may be issued prior to the date of bid, or in either of them, which said plans and specifications are hereby referred to by such reference, incorporated herein, and made a part of this Contract.

The following documents shall constitute the Contract Documents:

- (a) Notice to Contractors;
- (b) Instructions to Bidders;
- (c) Proposal Form;
- (d) Plans;
- (e) Specifications, special provisions;
- (f) Change Orders thereto;
- (g) Standard Specifications of the State of California, Business and Transportation Agency, Department of Transportation, 2010 edition, Sections 10 through 95, all as modified herein;
- (h) City of Vallejo Regulations and Standard Specifications for Public Improvements, December 2011 edition;
- (i) Vallejo Sanitation & Flood Control District Master Bid Document, dated March 2007;
- (j) Any other documents identified as such in the Contract Documents.

## 2. TERMS AND CONDITIONS

This Contract consists of the Contract Documents identified as such, all of which are incorporated herein by reference as though set forth in full, and all of which are part of this Contract, and Contractor and City agree to comply with and fulfill all obligations, promises, covenants and conditions imposed upon each of them in the Contract Documents. All of said work done under this Contract shall be performed to the satisfaction of the City Council, or its representative, who shall have the right to reject any and all materials and supplies furnished by Contractor which do not strictly comply with said plans and specifications, together with the right to require Contractor to replace any and all work furnished by Contractor which shall not either in workmanship or material be in strict accordance with said plans and specifications.

The said Contractor agrees to receive and accept the prices set forth in the proposal as full compensation for furnishing all materials and for doing all the work contemplated and embraced in this agreement, also for all loss or damage arising out of the nature of the work aforesaid, or from the action of the elements or from any foreseen difficulties or obstructions which may arise or be encountered in the prosecution of the work until its acceptance by the City and for all risks of every description, connected with the work; also for all discontinuance of work, and for well and faithfully completing the work, and the whole thereof, in the manner and according to the Plans and Specifications and the requirements of the Engineer under them.



By my signature as Contractor, I 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.

Pursuant to Section 1700, and following, of the California Labor Code, the Contractor shall pay not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations. Copies of such prevailing rate of per diem wages are on file at the office of the City Clerk, City of Vallejo, City Hall, 555 Santa Clara Street, Vallejo, California CA. Those copies shall be made available to any interested party upon request. The Contractor shall forfeit, as penalty to the City, Fifty Dollars (\$50.00) for each calendar day or portion thereof, for each workman paid less than the stipulated prevailing rates for any work done under the contract by it or by any subcontractor under it, in violation of the provisions of such Labor Code.

City shall pay Contractor the sums set forth on Exhibit A, hereto, in accordance with all of the terms and conditions of the Contract Documents.

The Contractor shall be permitted to substitute designated securities for any moneys withheld by the City of Vallejo to insure performance under the Contract. This right of substitution shall be exercised in the manner and subject to the conditions specified in the Contract Documents. The provisions of Public Contract Code section 22300 are incorporated herein by reference as though set forth in full, and shall govern the substitution of securities and/or escrow account.

The person signing this Agreement for Contractor hereby represents and warrants that he/she is fully authorized to sign this Agreement on behalf of Contractor.

**SIGNATURES ARE ON THE FOLLOWING PAGE**

IN WITNESS WHEREOF, the parties to these presents have hereunto set their hands and affixed their seal the day and year first above written.

CITY OF VALLEJO,  
a municipal corporation

[TYPE IN CONTRACTOR'S NAME]  
[Type in type of entity]

By: \_\_\_\_\_  
Greg Nyhoff  
City Manager

By: \_\_\_\_\_  
[Type in name]  
[Type in title]

Attest: \_\_\_\_\_  
Dawn G. Abrahamson  
City Clerk

(Corporate Seal)

(City Seal)

Approved as to Content:

\_\_\_\_\_  
Mike Malone  
Water Director

Approved as to Form

\_\_\_\_\_  
Claudia Quintana  
City Attorney

Approved as to Insurance:

\_\_\_\_\_  
Herbert Lester  
Risk Manager

**EXHIBIT A**

**[BID SHEET TO BE INSERTED]**

*This page intentionally left blank*

CITY OF VALLEJO  
WATER DEPARTMENT  
ENGINEERING DIVISION

**FAITHFUL PERFORMANCE BOND**

KNOW ALL MEN/WOMEN BY THESE PRESENTS, that we, \_\_\_\_\_

\_\_\_\_\_, as Principal, and

\_\_\_\_\_, as Surety, are held and firmly bound unto the City of Vallejo, a municipal corporation of the State of California, hereinafter called the City, in the penal sum of \_\_\_\_\_ DOLLARS (\$ \_\_\_\_\_), and no more, for the work described below, for the payments of which sum in lawful money of the United States of America well and truly to be made to the City of Vallejo, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents as herein above provided.

THAT WHEREAS, the Principal has entered into a contract with said City for the construction of:

**FLEMING HILL WATER TREATMENT PLANT FLOCCULATION AND  
SEDIMENTATION BASINS 1 & 8 EQUIPMENT UPGRADE PROJECT – WT7093**

NOW, THEREFORE, the condition of this obligation is such that if the above bounded Principal shall in all things stand to abide by, and well and truly keep and perform the covenants, conditions and agreements in the foregoing contract agreed on his/her or their part to be kept and performed at the time and in the manner herein specified, and shall indemnify and save harmless the City of Vallejo, its officers, agents and employees as therein stipulated, then this obligation shall become null and void; otherwise, it shall remain in full force and virtue to guarantee Contractor's faithful performance of its obligations in the Contract Documents, and Principal and Surety, in the event suit is brought on this bond, will pay to the Obligee such reasonable attorneys' fees as may be fixed by the Court.

The Surety herein, for value received, hereby stipulates and agrees that no change, extension of time, alteration, addition or modification to the terms and conditions of said contract, or the specifications accompanying the same shall in any manner affect its obligations on this bond, and said Surety does hereby waive notice of any such change, extension, alteration or addition. Said Surety hereby waives the provisions of Section 2819 and 2845 of the Civil Code of the State of California.

IN WITNESS WHEREOF, the above bounded parties have executed this Instrument under their several seals this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_. 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.

PRINCIPAL

SURETY

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

SURETY INFORMATION:

Contact Person: \_\_\_\_\_

Name of Company: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Telephone: (\_\_\_\_\_) \_\_\_\_\_ Fax no. : (\_\_\_\_\_) \_\_\_\_\_

- NOTE:
- (1) Signatures of those executing for the Surety must be properly acknowledged.
  - (2) This Bond must be in an amount equal to 100% of the amount bid.

APPROVED AS TO FORM:

\_\_\_\_\_  
Claudia Quintana  
City Attorney

CITY OF VALLEJO  
WATER DEPARTMENT  
ENGINEERING DIVISION

**PAYMENT (LABOR AND MATERIALS) BOND**

KNOW ALL MEN/WOMEN BY THESE PRESENTS, that whereas, the City of Vallejo, a municipal corporation of the State of California, acting through its City Council, has awarded: hereinafter designated as the Principal, a contract for:

**FLEMING HILL WATER TREATMENT PLANT FLOCCULATION AND  
SEDIMENTATION BASINS 1 & 8 EQUIPMENT UPGRADE PROJECT – WT7093**

AND WHEREAS, said Principal is required to furnish a bond in connection with said contract, provided that if said Contractor, or any of his/her or its subcontractors, shall fail to pay for any materials, provisions, provender or other supplies, or teams, used in, upon, for or about the performance of the work contracted to be done, or any work or labor done thereon of any kind, or for amounts due under the Unemployment Insurance Code with respect to such labor, the Surety of this bond will pay the same.

NOW, THEREFORE, we, \_\_\_\_\_

as Principal and \_\_\_\_\_,

as Surety, are held firmly bound unto the City of Vallejo, a municipal corporation, hereinafter called City, in the penal sum of \_\_\_\_\_  
\_\_\_\_\_ DOLLARS (\$ \_\_\_\_\_), and no more, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents, as herein provided.

The condition of this obligation is such that, if said Principal, or his/her or its Subcontractors, shall fail to pay for any materials, provisions, provender or other supplies or teams used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Code with respect to such work or labor, as required by the provisions of California Civil Code, commencing with Section 9550, and providing that the persons, companies or corporations so furnishing said materials, provisions, or other supplies, appliances or power used in, for or about the performance of the work contracted to be executed or performed, or any person, company, or corporation, renting, or hiring implements, or machinery, or power, for, or contributing to said work to be done, or any person who performs work or labor upon the same, or any person who supplies both work and materials therefor, shall have complied with the provisions of said Title 15, the Surety, or Sureties, hereon will pay the same in an amount not exceeding the sum specified in his/her or its bond, and also, in case suit is brought upon this bond, a reasonable

attorney's fee to be fixed by the Court, then this obligation shall become null and void; otherwise, it shall remain in full force and virtue.

This bond shall inure to the benefit of any and all persons, companies and corporations entitled to file claims under Section 9100 of the Civil Code of the State of California so as to give a right of action to them or their assigns in any suit brought upon this bond.

The Surety herein, for value received, hereby stipulates and agrees that no change, extension of time, alteration, addition or modification to the terms and conditions of said contract, or the specifications accompanying the same, shall in any manner affect its obligation on this bond, and said Surety does hereby waive notice of any such change, extension, alteration or addition.

IN WITNESS WHEREOF, the above bounden parties have executed this Instrument under several seals this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_. The name and Corporate Seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representatives, pursuant to authority of its governing body.

PRINCIPAL:

SURETY:

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

SURETY INFORMATION:

Contact Person: \_\_\_\_\_

Name of Company: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Telephone: (\_\_\_\_\_) \_\_\_\_\_ Fax no.: (\_\_\_\_\_) \_\_\_\_\_

NOTE: (1) Signatures of those executing for the Surety must be properly acknowledged.

(2) This Bond must be in an amount equal to 100% of the amount bid.

APPROVED AS TO FORM:

\_\_\_\_\_  
Claudia Quintana  
City Attorney



CITY OF VALLEJO  
WATER DEPARTMENT  
ENGINEERING DIVISION

**CONTRACTOR QUALIFICATION QUESTIONNAIRE**

If requested by City, bidder agrees to complete, sign and return this Contractor Qualification Questionnaire, including all required supporting documentation, within five (5) days of being requested by City. If bidder fails or refuses to complete the Contractor Qualification Questionnaire, furnish all required attachments, sign the Contractor Qualification Questionnaire, or return it to the City within five (5) days of City's request, bidder will not be considered for award of the contract, and further, bidder agrees that the City of Vallejo may award the work to another bidder or call for new bids. In such event, the bidder shall be liable to the City for the difference between the amount of the disqualified bid and the larger amount for which the City procures the work plus all of the City's costs, damages, expenses and liabilities.

Bidder shall fully and completely answer each question set forth below. If necessary attach additional sheets. Print or type each response. If your response to any question is "no" or "none," you must state "no" or "none." "Not applicable" or other similar response will not be accepted.

1. State the full legal name of the bidder.
  
2. State the nature of the bidder's business entity. (Sole proprietorship, joint venture, partnership, corporation, or other [describe]).
  
3. State the name and address of each person or other legal entity, which has a legal or equitable ownership of ten percent (10%) or more of the bidder. For each such person or legal entity, state that person or entity's ownership interest, title and responsibilities, if any.
  
4. Has any person or legal entity holding a legal or equitable ownership of the bidder, ever been accused of a civil violation of California Government Code section 12650, et seq., (False Claims Act)? If so, describe in detail all facts, circumstances and the outcome.

5. Has any person or legal entity holding a legal or equitable ownership of ten percent (10%) or more of the bidder, ever been determined by a public agency to not be a responsible bidder? If so, state the name, address and telephone number of the public agency, including the name of the agencies' contact person.
6. State the bidder's contractor's license number.
7. State the date bidder first began business.
8. State any other names that bidder has used or done business under in the past five (5) years.
9. Describe in general, bidder's experience.
10. Has bidders ever failed to complete a construction contract?
11. Has bidder's control over a work of improvement, ever been terminated?
12. For each chain and flight and flocculation system equipment upgrade project in equal or greater scale than described in the scope of work that bidder has furnished labor, services, materials or equipment in the past five years, state: the name of each project; the contract amount for each project; the name, address and telephone number of the owner and owner's representative, for each project; and a general description of the work performed by bidder on each project.
13. For every public work of improvement upon which bidder has furnished labor, services, materials or equipment in the past five years, whether completed or not, for which the bidder's original contract was greater than \$1,000,000, but not more than \$5,000,000, state the name, address and telephone number of the owner and principal designer (architect or engineer).

14. For every public work of improvement upon which bidder has furnished labor, services, materials or equipment in the past five years and the improvements were within an existing water treatment facility that required coordination with the owner's staff to minimize interference and interruption of the normal operation of the owner's existing facilities, state: the name of each project; the contract amount for each project; the name, address and telephone number of the owner and owner's representative, for each project; and a summary of the coordination that were implemented to minimize interference and interruptions to operation's continuity.
  
15. For every lawsuit or arbitration between bidder and the owner of any work of improvement, limited to such lawsuits or arbitrations initiated or completed within the past five (5) years, state the name and address of the tribunal, the matter number, the parties, a general description of the nature of the dispute, and the outcome, if any.
  
16. Has bidder ever been charged with a felony? If so, describe in detail all facts, circumstances and the outcome, furnishing the name and address of the court in which the charge(s) were filed, including the matter name and case number.
  
17. Has anyone ever alleged that bidder violated California Government Code section 12650, et seq., (False Claims Act)? If so, describe in detail all facts, circumstances and the outcome.
  
18. Has bidder ever been accused of presenting false claims to a public agency or public owner, as such claims are defined in California Government Code section 12650, et seq, or 31 United States Code section 3729, et seq.?
  
19. Has any public agency ever determined or ruled that bidder is not a responsible bidder? If so, state the name, address and telephone number of the public agency, including the name of the agencies' contact person.

20. Has any public agency ever issued a letter, ruling or determination debaring bidder or anyone holding a legal or equitable interest in bidder, from bidding public works? (This includes debarments that are simultaneously or subsequently suspended, revoked or withdrawn.)
21. Has bidder ever entered into an agreement with any public agency, to not bid work for that public agency?
22. Within the past seven (7) years, has bidder ever failed to complete a public works construction project, within the time allowed by the contract, plus written agreed upon contract time extensions? If so, state the name, address and telephone number of the owner of such public works construction project including the name of the agencies' contact person, and further, describe in detail the nature of the work of improvement.
23. Has any surety ever paid or satisfied any claim on behalf of bidder?
24. Has any surety ever undertaken or been called upon to complete any project of bidder?
25. For each project or work of improvement that bidder is either (a) currently furnishing labor, services, materials or goods, or (b) under contract to furnish labor, services, materials or goods, state: A general description of the project; the current status of the project and bidder's work thereon; the owner's name, address and telephone number; the amount of bidder's contract on such project.
26. State bidder's annual gross sales for each of the last five fiscal years.
27. If requested by City (as indicated below) attach a current financial statement. As used herein, "current financial statement" means a balance sheet and profit and loss statement prepared and presented in a format that complies with Generally Accepted Accounting Principles (GAAP), covering a period of time that is no less than the most recent fiscal year for bidder. If bidder's most recent fiscal year ended

more than six (6) months prior to the date when the Contract Documents require this Contractor Qualification Questionnaire be completed and returned to City, then "current financial statement" shall also include an interim balance sheet and profit and loss statement covering the period of time from the end of bidder's most recent fiscal year to a period of time no greater than sixty (60) days prior to the date when the Contract Documents require this Contractor Qualification Questionnaire be completed and returned to City.

CONTRACTOR MUST FURNISH:                      YES [ ]                      NO [ x ]

28. The following certification must be signed by an owner, general partner, or officer of bidder.

I DECLARE UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA, AND DO PERSONALLY CERTIFY AND ATTEST THAT: I HAVE THOROUGHLY REVIEWED THE ATTACHED CONTRACTOR QUALIFICATION QUESTIONNAIRE AND ATTACHMENTS, IF ANY, AND KNOW ITS CONTENTS, AND SAID CONTRACTOR QUALIFICATION QUESTIONNAIRE AND ATTACHMENTS, IF ANY, ARE TRUTHFUL, COMPLETE AND ACCURATE; AND CITY OF VALLEJO MAY RELY UPON THE CONTENTS AS BEING TRUTHFUL, COMPLETE AND ACCURATE; AND, FURTHER, THAT I AM FAMILIAR WITH CALIFORNIA PENAL CODE SECTION 72 AND CALIFORNIA GOVERNMENT CODE SECTION 12650, ET SEQ, PERTAINING TO FALSE CLAIMS, AND FURTHER KNOW AND UNDERSTAND THAT SUBMISSION OR CERTIFICATION OF A FALSE CLAIM MAY LEAD TO FINES, IMPRISONMENT AND/OR OTHER SEVERE LEGAL CONSEQUENCES.

EXECUTED ON THE DATE INDICATED BELOW, AT THE LOCATION INDICATED BELOW.

Dated: \_\_\_\_\_

Bidder

\_\_\_\_\_  
By:

\_\_\_\_\_  
(Printed name of signor)

\_\_\_\_\_  
(Title of signor)

*This page intentionally left  
blank*

CITY OF VALLEJO  
WATER DEPARTMENT  
ENGINEERING DIVISION

**CONTRACT CHANGE ORDER NO.:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**TO:** \_\_\_\_\_

**PROJECT:** FLEMING HILL WATER TREATMENT PLANT FLOCCULATION AND  
SEDIMENTATION BASINS 1 & 8  
EQUIPMENT UPGRADE  
PROJECT – WT7093

**FROM:** CITY OF VALLEJO

This change order modifies and amends the provisions of that certain Contract dated  
\_\_\_\_\_ by and between the City and \_\_\_\_\_  
\_\_\_\_\_ (“Contractor”).

**REFERENCE:** Contract Plans, Sheet No.  
or other Plans attached

Contractor is hereby directed to make the following changes to the Work:

By signing this Change Order, Contractor understands and agrees that it is accepting the specified sums and adjustment of contract time of completion (if any) set forth herein as full, final and complete satisfaction of any and all claims by Contractor for all costs and expenses of Contractor and anyone for whom Contractor may be responsible for the work referred to herein, including but not limited to costs or expenses of the Contractor or any of its subcontractors, materials suppliers, vendors or anyone else for whom Contractor is responsible, for labor, materials, services or equipment, no matter how characterized, whether known or unknown to Contractor, including but not limited to, all field and home office overhead, delay costs/claims, acceleration costs/claims, unabsorbed or under-absorbed home office overhead, extended field costs, general conditions, claim preparation costs, inefficiencies, or the like, no matter how characterized. Contractor further understands and agrees by signing this Change Order that any attempt by Contractor to purportedly reserve rights to claim additional time or compensation for the work referred to herein, is void.

ADJUSTMENT OF CONTRACT TIME OF COMPLETION: \_\_\_\_\_

AGREED PRICE: \_\_\_\_\_

FORCE ACCOUNT

BASE CONTRACT PRICE: \_\_\_\_\_

PREVIOUS CONTRACT CHANGE ORDER: \_\_\_\_\_

NEW ADJUSTED CONTRACT PRICE: \_\_\_\_\_

EXCEPT AS SET FORTH ABOVE, ALL TERMS AND PROVISIONS OF THE CONTRACT AND ALL PRIOR CHANGE ORDERS REMAIN IN FULL FORCE AND EFFECT.

RECOMMENDED: \_\_\_\_\_  
NAME TITLE

Execution of this Change Order by both parties constitutes a binding agreement. This document constitutes the entire agreement between the parties. The person signing this Change Order for Contractor hereby represents and warrants that he/she is fully authorized to sign this Agreement on behalf of Contractor.

ACCEPTED AND AGREED

Contractor: \_\_\_\_\_ DATE \_\_\_\_\_  
[Type in name and title]

City: \_\_\_\_\_ DATE \_\_\_\_\_  
WATER DIRECTOR



## SECTION A - SPECIAL PROVISIONS

1. Location of Work – Fleming Hill WTP, 202 Fleming Hill Rd, City of Vallejo, County of Solano, State of California
2. Scope of Work - For all work on this project the Contractor shall furnish all labor, materials, tools, equipment, transportation, appliances and services required to completely execute the work as set forth on the Contract Documents. The subdivision of these specifications into divisions is not intended to strictly set forth or limit the scope of any subcontractor and shall not relieve the Contractor of the responsibility for executing all work on the project as a whole.
3. Pre-Construction Conference - The Contractor, Engineer and other interested parties shall meet at a pre-construction conference to be scheduled after execution of the construction Contract and prior to the start of construction. The purpose of this conference is to review job schedules, traffic control, affirmative action, and to discuss various other aspects of the work and to clarify procedures.

The Contractor shall submit the following to the Engineer by the date of the pre-construction conference:

- A. Detailed CPM Construction Schedule for review.
  - B. Detailed Traffic Control Plan for review.
  - C. Detail Stage Construction and Traffic Handling Plan for review
  - D. All other material or required submittals for review. All submittals shall be in writing.
  - E. "Notice" to homeowners, residents, commuters and/or affected parties for review.
4. Underground Utilities - The Contractor shall locate all underground obstructions and utilities - gas, electric, water lines, etc. Repair of damage of any utility lines shall be made at the Contractor's expense. See applicable drawings, if any.
  5. Materials and Tests -The Contractor shall furnish written laboratory reports from a reputable testing or inspection agency acceptable to City of Vallejo, or written certification from the manufacturer as to compliance with the Specifications as to the composition, durability and performance of the all materials used in the project. Certain specification sections may require special items or materials to be included in the submittal.

6. City Furnished Materials - The City will furnish to the Contractor free of charge for use under these Specifications the following materials:  
**See Plan sheets 3 and 4 for a detailed list of equipment to be provided by the City.**

7. Water – Water is to be drawn from a Water Department designated fire hydrant after the Contractor has applied to the Water Department for a temporary water meter.

THE FEES AND THE COST OF WATER ARE WAIVED FOR THIS PROJECT.

8. Sequence of Construction to Maintain Traffic -The Contractor must submit a detailed schedule of operations to the Engineer for review and acceptance prior to starting work on the project.

See “Traffic Control” of these special provisions for compensation.

9. Construction Upon Private Property - The Contractor shall note that the work may be performed on or in the vicinity of private property. The Contractor shall, at all times, remove all litter, debris, and construction waste, minimize noise, dust, standing water, vibrations, hazardous conditions and provide safe access to these properties. The Contractor is prohibited from using any and all privately owned utilities. The Contractor's materials and equipment shall not be stored upon private property without written approval from the resident and/or owner.

Construction on private property during overtime, weekend, holiday or any other irregular period shall be performed only when the Contractor has requested and received written approval from the adjacent residents and the Engineer.

No separate payment shall be made for the above considerations. Full compensation for the above construction restrictions shall be considered as included in the price paid for the various items of work involved.

10. Watermain Tie-Ins - If a watermain tie-in is required, work shall conform to City Standard Specification Section 4.3.9, "Connecting to Existing main" including, but not limited to the following or as directed by the Engineer:

- A. The Contractor is responsible for calling the City Maintenance Division at (707) 648-4529 when they are ready to perform the tie-in, (Maintenance requires 48 hours notice). The Maintenance Inspector shall be present before, during, and after the tie-in is completed, to insure that the trench is completely back filled before the water is turned on. If the Contractor fails to coordinate the tie-in with the Maintenance Inspector, the said tie-in will not be accepted.

- B. If the Contractor schedules a tie-in with the Maintenance Inspector, and is not ready for the tie-in on the scheduled date, the contractor will be charged for the Maintenance Inspector's time, unless, the Contractor cancels the

inspection 24 hours in advance.

11. As-Built Drawings - The Contractor will keep up to date at all times, a complete and accurate set of record prints, which shall be corrected regularly, showing every change from the Contract Documents, including all addendum, Change Orders, job decisions, etc. Upon completion of the work, a set of as-built prints shall be made by the Contractor after consultation with the project Engineer and all changes noted. All changes shall be neatly and legibly drawn to scale on the set of prints using standard architectural or engineering drafting practices.
  
12. Hazardous Waste in Excavation – If the Contractor encounters material in excavation, which the contractor has reason to believe may be hazardous waste as defines by Section 25117 of the Health and Safety Code, the contractor shall immediately so notify the Engineer in writing. Excavation in the immediate area of the suspected hazardous material shall be suspended until the Engineer authorizes it to be resumed. If such suspension delays the current controlling operation by more than one (1) working day, the Contractor shall be granted an extension of time as provided in Section 8-1.07, “Liquidated Damages,” of the General Provisions. Upon authorization from the Engineer to proceed, the Contractor shall resume excavation operations per the requirements of the plans and specifications.

If such suspension delays the current controlling operation by more than two (2) working days, the delay shall be considered a right of way delay and the Contractor shall be compensated for such delay as provided in Section 8-1.09, “Right of Way Delays,” of the General Provisions.

The City reserves the right to use other forces for exploratory work to identify and determine the extent of hazardous material and for removing such material.

*This page intentionally left  
blank*

## SECTION B - GENERAL PROVISIONS

### SECTION 1: DEFINITIONS AND TERMS

#### 1-1.01 General

Unless the context otherwise requires, wherever in the Specifications and other Contract Documents the following abbreviations and terms, or pronouns in place of them, are used, the intent and meaning shall be interpreted as provided in this Section One. Working titles having a masculine gender, such as "workman" and "journeyman" and the pronoun "he," are utilized in the Specifications for the sake of brevity, and are intended to refer to persons of either gender.

#### 1-1.02 ABBREVIATIONS

AAN	American Association of Nurserymen
AASHTO	American Association of State Highway and Transportation Officials
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ANSI	American National Standards Institute
APHA	American Public Health Association
API	American Petroleum Institute
AREA	American Railway Engineering Association
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWG	American Wire Gage
AWPA	American Wood Preservers' Association
AWS	American Welding Society
AWWA	American Water Works Association
EIA	Electronic Industries Association
IEEE	Institute of Electrical and Electronics Engineers
NEMA	National Electrical Manufacturers Association
UL	Underwriters' Laboratories Inc.

#### 1-1.02A UNITS OF MEASUREMENT

These General Provisions contain units in two systems of measurement: units shown in the International System of Units (SI or "metric") and units in the United States Standard Measures are shown in braces "{}". The Department does not warrant the accuracy of the units shown in United States Standard Measures, and any use of United States Standard Measures is at the sole risk of those agencies and others that specify United States Standard Measures units in their contracts. The measurements expressed in the two systems are not necessarily equal, and items constructed or fabricated in one system are not necessarily interchangeable with items constructed or fabricated in the other

system. The project Special Provisions designate the system of units that will apply to contracts referencing these Standard Specifications.

Some of the symbols for metric units of measurement used in the Specifications and in the Engineer's Estimate are defined as follows. The symbols for other units of measurement used in the Specifications are as defined in ASTM Designation: E-380, or in the various Specifications and test referenced in the Specifications.

Symbols as used in the Specifications	Symbols as used in the Engineer's Estimate	Definitions
A	—	amperes
—	EA	each
g	G	gram
kg	KG	kilogram
ha	HA	hectare (10 000 m <sup>2</sup> )
h	H	hour
J	—	joule
—	LNKM	lane kilometer
L	L	liter
—	LS	lump sum
m	M	meter
km	KM	kilometer
mm	MM	millimeter
µm	—	micrometer
nm	—	nanometer
m <sup>2</sup>	M <sup>2</sup>	square meter
m <sup>3</sup>	M <sup>3</sup>	cubic meter
N	—	newton
N·m	—	newton meter
Ω	—	ohm
Pa	—	pascal
kPa	—	kilopascal
MPa	—	megapascal
s	—	second
—	STA	station (100 m)
—	TAB	tablet
tonne	TONN	metric ton (1000 kg)
W	—	watt
V	—	volt

Some of the symbols for United States Standard Measures units of measurement used in the Specifications and in the Engineer's Estimate are defined as follows.

Symbol Used	Definitions
A	amperes

EA	each
LB	pound
ACRE	acre
h	hour
LNMI	lane mile
GAL	gallon
LS	lump sum
LF	linear foot
MI	mile
MSYD	thousand station yard
SF	square foot
CF	cubic foot
SY	square yard
CY	cubic yard
Ω	ohm
s	second
STA	100 feet
TAB	tablet
TON	2,000 pounds
W	watt
V	volt
MFBM	thousand foot board measure

1-1.03 ACCEPTANCE

The formal written acceptance by the Vallejo City Council of an entire contract which has been completed in all respects in accordance with the plans and Specifications and any modifications thereof previously authorized in writing.

1-1.04 (BLANK)

1-1.05 BASE

A layer of specified material of planned thickness placed immediately below the pavement or surfacing.

1-1.06 BASEMENT MATERIAL

The material in excavation or embankments underlying the lowest layer of subbase, base, pavement, surfacing or other specified layer which is to be placed.

1-1.07 BIDDER

Any individual, firm, partnership, corporation, or combination thereof, submitting a proposal for the work contemplated, acting directly or through a duly authorized representative.

1-1.08 BRIDGE

Any structure, with a bridge number, which carries a utility facility, or railroad, highway, pedestrian or other traffic, over a water course or over or under or around any obstruction.

1-1.085 CONDUIT

A pipe or tube in which smaller pipes, tubes or electrical conductors are inserted or are to be inserted.

1-1.09 CONTRACT

The written agreement covering the performance of the work and the furnishing of labor, materials, tools and equipment in the construction of the work. The Contract shall include:

- (a) Notice to Contractors,
- (b) Instructions to Bidders,
- (c) Proposal Form,
- (d) Plans, Specifications, special provisions;
- (e) Addenda and Change Orders thereto;
- (f) Standard Specifications, State of California, Business, Transportation and Housing Agency, Department of Transportation, 2010 edition, Sections 10 through 95, all as modified herein;
- (g) City of Vallejo Standard Specifications and Standard Drawings , December 2011 edition;
- (h) Vallejo Sanitation & Flood Control District Master Bid Document, dated March 2007.

All documents comprising the Contract may also be referred to as the "Contract Documents."

1-1.10 CONTRACTOR

The person or persons, firm, partnership, corporation, or combination thereof, private or municipal, who have entered into a Contract with the City of Vallejo, as party or parties of the second part or their legal representatives.

1-1.11 CULVERT

Any structure, other than a bridge, which provides an opening under a roadway for drainage or other purposes.

1-1.12 DAYS

Unless otherwise designated, days as used in the Specifications will be understood to mean calendar days.



1-1.13 DEPARTMENT

The City of Vallejo Water Department.

1-1.14 DETOUR

A temporary route for traffic around a closed portion of a road.

1-1.15 DIRECTOR

The City of Vallejo Water Department Director, or his/her authorized representative.

1-1.16 DIVIDED HIGHWAY

A highway with separated traveled ways for traffic, generally in opposite directions.

1-1.17 (BLANK)

1-1.18 ENGINEER

The City of Vallejo, Water Department, Project Engineer, acting either directly or through properly authorized agents, the agents acting within the scope of the particular duties delegated to them.

1-1.19 ENGINEER'S ESTIMATE

The list of estimated quantities of work to be performed as contained in the "Proposal Form."

1-1.20 FEDERAL AGENCIES

Whenever, in the Specifications, reference is made to any Federal agency or officer, the reference shall be deemed made to any agency or officer succeeding in accordance with law to the powers, duties, jurisdiction and authority of the agency or officer mentioned.

1-1.21 FIXED COSTS

Any necessary labor, material and equipment costs directly expended on the item or items under consideration which remain constant regardless of the quantity of the work done.

1-1.22 FRONTAGE ROAD

A local street or road auxiliary to and located generally on the side of an arterial highway for service to abutting property and adjacent areas and for control of access.

1-1.23 GRADING PLANE

The surface of the basement material upon which the lowest layer of subbase, base, pavement, surfacing or other specified layer is placed.

1-1.24 HIGHWAY

The whole right of way or area which is reserved for and secured for use in constructing the roadway and its appurtenances.

1-1.25 LABORATORY

Any testing laboratory identified as such by City of Vallejo.

1-1.255 LEGAL HOLIDAYS

Those days designated as City observed holidays specifically:

a) New Year's Day, b) Martin Luther King, Jr. Day, c) President's Day, d) Memorial Day, e) Independence Day, f) Labor Day, g) Columbus Day, h) Veterans' Day, i) Thanksgiving Day, j) Day after Thanksgiving, k) Christmas Day

1-1.26 LIQUIDATED DAMAGES

The amount prescribed in the Contract Documents, to be paid to the City of Vallejo or to be deducted from any payments due or to become due the Contractor for each day's delay in completing the whole or any specified portion of the work beyond the time allowed in the Contract Documents.

1-1.265 MUTCD OR CAMUTCD

The State of California, Department of Transportation publication entitled "California Manual on Uniform Traffic Control Devices."

1-1.27 MEDIAN

That portion of a divided highway separating the traveled ways for traffic in opposite directions including inside shoulders.

1-1.275 OFFICE OF STRUCTURE DESIGN

The State of California Office of Structure Design of the Department of Transportation. When the Specifications require working drawings to be submitted to the State Office of Structure Design, the drawings shall be submitted to: Office of Structure Design, Documents Unit, Mail Station 9, 1801 30th Street, Sacramento, CA 95816, Telephone (916) 227-8252.

### 1-1.28 PAVEMENT

The uppermost layer of material placed on the traveled way or shoulders. This term is used interchangeably with surfacing.

### 1-1.29 PLANS

The official project plans and Standard Plans, profiles, typical cross sections, working drawings and supplemental drawings, or reproductions thereof, approved by the Engineer, which show the location, character, dimensions and details of the work to be performed. These documents are to be considered as a part of the plans. In the above definition, the following terms are defined as follows:

- Project Plans

The project plans are specific details and dimensions peculiar to the work and are supplemented by the Standard Plans insofar as the same may apply.

- Standard Plans

The Standard Plans issued by the State of California, Business, Transportation and Housing Agency, Department of Transportation.

### 1-1.30 PROCESSING

Any operation or operations of whatever nature and extent required to produce a specified material.

### 1-1.31 PROPOSAL

The offer of the Bidder for the work when made out and submitted on the prescribed proposal form, properly signed and guaranteed.

### 1-1.32 PROPOSAL FORM

The approved form upon which the City of Vallejo requires formal bids be prepared and submitted for the work.

### 1-1.33 PROPOSAL GUARANTY

The cash, cashier's check, certified check or bidder's bond accompanying the proposal submitted by the bidder, as a guaranty that the bidder will enter into a contract with the City of Vallejo for the performance of the work if the Contract is awarded to the bidder.

1-1.34 ROADBED

The roadbed is that area between the intersection of the upper surface of the roadway and the side slopes or curb lines. The roadbed rises in elevation as each increment or layer of subbase, base, surfacing or pavement is placed. Where the medians are so wide as to include areas of undisturbed land, a divided highway is considered as including 2 separate roadbeds.

1-1.35 ROADWAY

That portion of the highway included between the outside lines of sidewalks, or curbs, slopes, ditches, channels, waterways, and including all the appertaining structures, and other features necessary to proper drainage and protection.

1-1.36 SHOULDERS

The portion of the roadway contiguous with the traveled way for accommodation of stopped vehicles, for emergency use, and for lateral support of base and surface courses.

1-1.37 SPECIAL PROVISIONS

The special provisions are specific clauses setting forth conditions or requirements peculiar to the work and supplementary to these Specifications.

1-1.38 SPECIFICATIONS

The directions, provisions and requirements contained in the General Provisions, Wage and Equipment Rate and Technical Specifications section as supplemented by the Standard Specifications, City of Vallejo Standard Specifications and Standard Drawings. Whenever the term "these Specifications" or "these Standard Specifications" is used in this Contract, it means the provisions set forth in this Contract. "Specifications" or "Standard Specifications" also means the State of California, Department of Transportation, Standard Specifications, 2010 edition, Sections 10 through 95 only.

1-1.39 STATE

The State of California.

1-1.40 (BLANK)

1-1.41 SUBBASE

A layer of specified material of planned thickness between a base and the basement material.

1-1.42 SUBGRADE

That portion of the roadbed on which pavement, surfacing, base, subbase, or a layer of

any other material is placed.

#### 1-1.43 SUBSTRUCTURE

All that part of the bridge below the bridge seats, tops of piers, haunches of rigid frames, or below the spring lines of arches. Backwalls and parapets of abutments and wingwalls of bridges shall be considered as parts of the substructure.

#### 1-1.44 SUPERSTRUCTURE

All that part of the bridge except the bridge substructure.

#### 1-1.45 SURFACING

The uppermost layer of material placed on the traveled way, or shoulders. This term is used interchangeably with pavement.

#### 1-1.46 TRAFFIC LANE

That portion of a traveled way for the movement of a single line of vehicles.

#### 1-1.47 TRAVELED WAY

That portion of the roadway for the movement of vehicles, exclusive of shoulders.

#### 1-1.48 WORK

All the work specified, indicated, shown, contemplated or inferable from the Contract Documents to construct the improvement, including all alterations, amendments or extensions thereto made by Contract change order.

*This page intentionally left  
blank*

## **SECTION 2: PROPOSAL REQUIREMENTS AND CONDITIONS**

### **2-1.01 CONTENTS OF PROPOSAL FORMS**

Prospective bidders must use City of Vallejo proposal forms which will refer to the special provisions and project plans for the work to be done and will include a schedule of items for which bid prices are asked, showing the approximate estimate of the various quantities and kinds of work to be performed or materials to be furnished.

### **2-1.02 APPROXIMATE ESTIMATE**

The quantities given in the proposal form and Contract are approximate only, being given as a basis for the comparison of bids. The City of Vallejo does not, expressly or by implication, agree that the actual amount of work will correspond therewith, and reserves the right to increase or decrease the amount of any class or portion of the work, or to omit portions of the work.

### **2-1.03 EXAMINATION OF PLANS, SPECIFICATIONS, CONTRACT, AND SITE OF WORK**

All bidders shall carefully and completely examine the site of the work contemplated, the plans and Specifications, and the proposal and Contract forms therefor, and perform all tests and inspections necessary to inform bidder of all conditions that may be encountered, the character, quality and scope of work to be performed, and the quantities of materials to be furnished. The submission of a bid shall be conclusive evidence that the bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality and scope of work to be performed, the quantities of materials to be furnished and as to the requirements of the proposal, plans, Specifications and the Contract.

Where the City of Vallejo has made investigations of site conditions, including subsurface conditions in areas where work is to be performed under the Contract, or in other areas, some of which may constitute possible local material sources, bidders and Contractor may, upon written request, inspect the records of the City of Vallejo as to those investigations subject to and upon the conditions hereinafter set forth. The investigations are made only for the purpose of study and design.

The records of investigations, project records, log of test borings, record of geotechnical data, investigation of subsurface conditions, "Materials Information," cross-sections, contour maps, and any other investigations provided by City of Vallejo, are not a part of the Contract and are available solely for the convenience of the bidder or Contractor. It is expressly understood and agreed that the City of Vallejo assumes no responsibility whatsoever in respect to the sufficiency or accuracy of the above described documents or of the interpretations set forth therein or made by the City of Vallejo in its use thereof and there is no warranty or guaranty, either express or implied, as to the completeness or accuracy of the documents, that the conditions indicated by the documents are representative of those existing in or throughout those areas, or any part thereof, or that

unlooked-for developments may not occur, or that materials other than, or in proportions different from those indicated, may not be encountered.

The availability or use of information described in this section is not to be construed in any way as a waiver of the provisions of the first paragraph in this section and a bidder or Contractor shall make their own investigation and examination to be satisfied as to conditions to be encountered in the performance of the work.

No information derived from the inspection of investigations or compilation thereof made by the City of Vallejo or from the Engineer, or their consultants, will in any way relieve the bidder or Contractor from any risk or from properly fulfilling the terms of the Contract.

#### 2-1.04        ADDENDUM

If discrepancies or apparent errors are found in the Contract Documents prior to the date of bid opening, bidders shall submit a written request for clarification to Engineer, which response to said request will be given in the form of addenda to all bidders, if time permits.

The correction of any discrepancies in, or omissions from the plans, Specifications, or other Contract Documents, or any interpretation thereof, during the bidding period will be made only by an addendum issued in writing by the City of Vallejo. A copy of each such addendum issued by the City of Vallejo will be electronically mailed, faxed or delivered to each person receiving a set of the Contract Documents, and shall be made a part of the Contract. Any other interpretation or explanation of such documents will not be considered binding.

#### 2-1.05        PROPOSAL FORMS

The City of Vallejo will furnish to each bidder a standard proposal form, which, when filled out and executed may be submitted as that bidder's bid. Bids not presented on forms so furnished, and copies or facsimiles of the bidder's completed and executed proposal forms submitted as a bid may be rejected.

2-1.054        (BLANK)

2-1.056        (BLANK)

2-1.06         (BLANK)

#### 2-1.07        PROPOSAL GUARANTY

The proposal must be accompanied by cash, a bidder's bond, certified check, or cashier's check in an amount not less than ten percent (10%) of the amount bid. The bidder's bond must be signed in favor of the City of Vallejo, and the certified check or cashier's check must be made payable to the City of Vallejo.

#### 2-1.08        WITHDRAWAL OF PROPOSALS



Any bid may be withdrawn at any time prior to the date and time fixed for the opening of bids only by written request for the withdrawal of the bid filed at the location at which the bid was received by the City of Vallejo. The request shall be executed by the bidder or the bidder's duly authorized representative. The withdrawal of a bid does not prejudice the right of the bidder to file a new bid. Whether or not bids are opened exactly at the time fixed for opening bids, a bid will not be received after that time, nor may any bid be withdrawn after the time fixed for the opening of bids.

## 2-1.09 PUBLIC OPENING OF PROPOSALS

Proposals will be opened and read publicly at the time and place indicated in the "Notice to Contractors." Bidders or their authorized agents are invited to be present.

## 2-1.095 RELIEF OF BIDDERS

Attention is directed to the provisions of Public Contract Code Sections 5100 to 5107, inclusive, concerning relief of bidders and in particular to the requirement therein, that if the bidder claims a mistake was made in the bid presented, the Bidder shall give the City of Vallejo written notice within 5 days after the opening of the bids of the alleged mistake, specifying in the notice in detail how the mistake occurred.

## 2-1.10 DISQUALIFICATION OF BIDDERS

More than one proposal from an individual, firm, partnership, corporation, or combination thereof under the same or different names will not be considered. Reasonable grounds for believing that any individual, firm, partnership, corporation or combination thereof is interested in more than one proposal for the work contemplated may cause the rejection of all proposals in which that individual, firm, partnership, corporation or combination thereof is interested. If there is reason for believing that collusion exists among the Bidders any or all proposals may be rejected. Proposals in which the prices appear unbalanced may be rejected.

2-1.105 (BLANK)

2-1.108 (BLANK)

2-1.11 (BLANK)

2-1.12 (BLANK)

*This page intentionally left  
blank*

## **SECTION 3: AWARD AND EXECUTION OF CONTRACT**

### **3-1.01 AWARD OF CONTRACT**

The right is reserved to reject any and all proposals.

The award of the Contract, if it be awarded, will be to the lowest responsible bidder whose proposal complies with all the requirements prescribed. The award, if made, will be made within 60 days after the opening of the proposals. This period will be subject to extension for such further period as may be agreed upon in writing between the City of Vallejo and the bidder concerned.

All bids will be compared on the basis of the Engineer's Estimate of the quantities of work to be done.

The low bid will be determined by adding the sum of the base bid and all alternates (if any). The City of Vallejo reserves the right to include in the Contract, if a Contract is awarded, the base bid only, or the base bid plus any alternate bid or combinations of alternates bid.

### **3-1.02 BONDS**

Within ten (10) days of Contractor's receipt of Contract from City of Vallejo, the Contractor shall furnish corporate surety bonds to the benefit of the City of Vallejo, issued by a surety company acceptable to the City of Vallejo and authorized and admitted to do business in the State of California, as follows:

- A. Faithful Performance Bond -- In a sum not less than one hundred percent (100%) of the total contract price as set forth in the Contract to guarantee the Contractor's faithful performance of all covenants and stipulations of the Contract. The bond shall contain a provision that the surety thereon waives the provisions of Sections 2819 and 2845 of the Civil Code of the State of California.
- B. Payment (Labor and Materials) Bond -- In a sum not less than one hundred percent (100%) of the total contract price as set forth in the Contract to guarantee the payment of wage, and bills contracted for materials, supplies, or equipment used in the performance of the Contract. The bond shall be in accordance with the provisions of Sections 3225, 3226, and 3247 to 3252, inclusive, of the Civil Code of the State of California, and Section 13020 of the Unemployment Insurance Code of the State of California. Said bond shall also contain a provision that the surety thereon waives the provisions of Sections 2819 and 2845 of the Civil Code of the State of California.

Faithful Performance Bond and Payment Bond shall be on the forms provided by City of Vallejo.

The surety companies shall familiarize themselves with all provisions and conditions of

the Contract. It is understood and agreed that the surety or sureties waive the right of special notification of any modifications or alterations, omissions or reductions, extra or additional work, extensions of time, or any other act or acts by the City of Vallejo or its authorized agents under the terms of the Contract; and failure to so notify the surety companies of such changes shall in no way relieve the surety or sureties of their obligations under this Contract. The surety expressly waives the provisions of Sections 2819 and 2845 of the Civil Code of the State of California.

### 3-1.03 EXECUTION OF CONTRACT

The Contract shall be signed by the successful bidder and returned, together with the Contract bonds, within 10 days after the bidder has received the Contract for execution.

### 3-1.04 FAILURE TO EXECUTE CONTRACT

The Contractor shall pay to the City of Vallejo such sums from said cash, bond, certified check, or cashier's check as necessary to reimburse the City of Vallejo for costs incurred for failure of the successful bidder to complete, sign and return in strict compliance with these Contract Documents, if requested to do so, Contractor's Qualification Questionnaire, or enter into a Contract. The amount of said cash, bond, certified check, or cashier's check shall not be deemed to constitute a penalty or liquidated damages. The City of Vallejo shall not be precluded by such cash, bond, certified check, or cashier's check from recovering from the defaulting bidder damages in excess of the amount of said cash, bond, certified check, or cashier's check incurred as a result of the failure of the successful bidder to complete, sign and return in strict compliance with these Contract Documents, if requested to do so, Contractor's Qualification Questionnaire, or enter into a Contract.

### 3-1.05 RETURN OF PROPOSAL GUARANTIES

The proposal guaranties accompanying the proposals of the first, second and third lowest bidders will be retained until the Contract has been finally executed, after which those proposal guaranties, may be returned to the respective bidders whose proposals they accompany. The proposal guaranties, other than bidder's bonds, submitted by all other unsuccessful bidders will be returned upon determination, by the City of Vallejo, of the first, second and third lowest responsible Bidders.

## **SECTION 4: SCOPE OF WORK**

### **4-1.01 INTENT OF PLANS AND SPECIFICATIONS**

All work and materials shall be in full accordance with the latest adopted standards and regulations of the State Fire Marshal; the California Building Code; Title 24 of the California Code of Regulations; the California Electrical Code; the California Plumbing Code; Americans with Disabilities Act; and all other applicable codes, laws, rules or regulations. Nothing in these Contract Documents is to be construed to permit work not conforming to these requirements. Contractor agrees that immediately upon signing of the Contract, Contractor will diligently review the Contract Documents and determine if any work described or inferred within the Contract Documents is not in conformance with these requirements. Should Contractor discover work within the Contract Documents not in conformance with these requirements, Contractor agrees to immediately notify Engineer in writing of said nonconformance, and to not proceed with nonconforming work. When the work detailed in the Contract Documents differs from governing codes, it is understood and agreed that the Contract sum is based upon the more costly or expensive standard.

The intent of the plans and Specifications is to prescribe the details for the construction and completion of the work which the Contractor undertakes to perform in accordance with the terms of the Contract, and that the work performed under the Contract results in a complete operating system in satisfactory working condition with respect to the functional purposes of the installation, and no extra compensation will be allowed for anything omitted but fairly implied. The prices paid for the various items in the proposal shall include full compensation for furnishing all labor, materials, tools, equipment, overhead, profit, incidentals, and doing all work necessary to complete the finished product as provided in the Contract Documents. Where the plans or Specifications describe portions of the work in general terms, but not in complete detail, it is understood that only the best general practice is to prevail and that only materials and workmanship of the first quality are to be used. The Contractor shall furnish all labor, materials, tools, equipment, and incidentals, and do all the work involved in executing the Contract to the highest possible standard of workmanship.

Should it appear that the work to be done, or any of the matters relative thereto, are not sufficiently detailed or explained in the Contract Documents, or in the event of any doubt or question arising respecting the true meaning of the Contract Documents, the Contractor shall apply to the Engineer in writing for such further explanations as may be necessary, and the Engineer shall render his or her decisions thereon. The Contractor shall thoroughly review all Requests for Information (RFI's) submitted by subcontractors prior to submission to the Engineer to determine whether such RFI's is already answered in the Contract Documents. Contractor represents to City of Vallejo, that by submission of an RFI, Contractor has thoroughly reviewed the RFI and thoroughly reviewed the Contract Documents, and determined that the RFI is not answered or reasonably inferable in the Contract Documents, and that the RFI pertains to an unforeseen condition or circumstance that is not described in the Contract Documents, that there is a conflict or discrepancy in the Contract Documents, or there is an omission in the Contract

Documents. In the event any RFI is answered or reasonably inferable from the Contract Documents, Contractor agrees to pay the City of Vallejo the reasonable cost, time and expenses associated with reviewing and responding to RFI's which are already answered or reasonably inferable from the Contract Documents. In the event of a disagreement over such compensation, the judgment of the Engineer shall be final.

#### 4-1.02 FINAL CLEANING UP

Before final inspection of the work, the Contractor shall clean the project site, material sites and all ground occupied by the Contractor in connection with the work of all rubbish, excess materials, falsework, temporary structures and equipment. All parts of the work shall be left in a neat and presentable condition. Full compensation for final cleaning up will be considered as included in the prices paid for the various Contract items of work and no separate payment will be made therefore.

#### 4 -1.03 CHANGES

The City reserves the right without changing the scope of work, to make such alterations deviations, additions to or deletions from the plans and Specifications, including but not limited to, the right to add or delete any portion of the work to be done with no additional compensation or change in lump sum or unit bid prices. The City also reserves the right without changing the scope of work, to increase or decrease the quantity of any item or portion of the work, as may be deemed by the Engineer to be necessary or advisable and to require such extra work as may be determined by the Engineer to be required for the proper completion or construction of the whole work contemplated. Such increases or decreases in quantities shall not be a basis for change in character of the work.

The City of Vallejo may request that Contractor provide City of Vallejo with estimated costs for proposed changes to the work. Contractor agrees to promptly provide City of Vallejo with detailed, itemized costs for proposed changes to the work and scheduling data demonstrating the impact, if any, of the proposed changes to the work and the time for completion. Adjustments, if any, in the amount to be paid the Contractor by reason of any modifications of the work as set forth in a Contract change order, Construction Change Directive, or arising from claims shall be determined by one or more of the following methods as elected by the City of Vallejo:

- A. Lump Sum Price - By an acceptable lump sum price fixed in agreement between the City of Vallejo and the Contractor.
- B. Unit Prices - By unit prices fixed by agreement between the City of Vallejo and the Contractor.
- C. Force Account - By directing the Contractor to proceed with the work and to keep and present in such form as the City of Vallejo may direct, a correct account of the cost of the change, together with all vouchers therefor. The Contractor will be paid for labor, materials, equipment rental, etc. actually used on change order work performed under Force Account as per Section 9-1.03 of these specifications.

The amount of payment agreed upon or, in the absence of agreement, selected by the City of Vallejo shall be set forth in the change order or construction change directive.

Upon receipt of a Contract change order authorized by the Engineer, the Contractor shall proceed with the ordered work. If ordered in writing by the Engineer, the Contractor shall proceed with the work so ordered prior to actual receipt of an authorized Contract change order therefor. In those cases, the Engineer will, as soon as practicable, issue a Contract change order for the ordered work and the provisions in Section 4-1.03A, "Procedure and Protest," shall be fully applicable to the subsequently issued Contract change order.

When the compensation for an item of work is subject to adjustment under the provisions of this Section 4-1.03, the Contractor shall, upon request, furnish the Engineer with adequate detailed cost data for that item of work. If the Contractor requests an adjustment in compensation for an item of work, the cost data shall be submitted with the request.

#### 4-1.03A PROCEDURE AND PROTEST

A Contract change order authorized by the Engineer may be issued to the Contractor at any time. Should the Contractor disagree with any terms or conditions set forth in an authorized Contract change order not executed by the Contractor, the Contractor shall submit a written protest to the Engineer within 15 days after the receipt of the Contract change order. The protest shall state the points of disagreement, and the Contract specification references, quantities and costs involved. If a written protest is not submitted, payment will be made as set forth in the Contract change order, and Contractor agrees that payment shall constitute full compensation for all work included therein or required thereby. Unprotested Contract change orders will be considered as executed Contract change orders.

Where the protest concerning an authorized Contract change order relates to compensation, the compensation payable for all work specified or required by that Contract change order to which the protest relates will be determined as provided in Section 4-1.03D. The Contractor shall keep full and complete records of the cost of that work and shall permit the Engineer to have access thereto as may be necessary to assist in the determination of the compensation payable for that work.

Where the protest concerning an accepted Contract change order relates to the adjustment of Contract time for the completion of the work, the time to be allowed therefor will be determined as provided in Section 8-1.07, "Liquidated Damages."

Proposed Contract change orders may be presented to the Contractor for consideration prior to authorization by the Engineer. If the Contractor signifies acceptance of the terms and conditions of the proposed Contract change order by executing the document and if the Contract change order is accepted by the Engineer and issued to the Contractor, payment in accordance with the provisions as to compensation therein set forth shall constitute full compensation for all work included therein or required thereby. An accepted Contract change order shall supersede a proposed, but unaccepted, Contract change order covering the same work.

The Engineer may provide for an adjustment of compensation as to a Contract item of work included in a Contract change order determined as provided in Section 4-1.03D, if that item of work is eligible for an adjustment of compensation thereunder.

Change orders shall be in the form provided by City of Vallejo in the Contract Documents.

4-1.03B (NOT USED)

4-1.03C (NOT USED)

4-1.03D EXTRA WORK

New and unforeseen work will be classed as extra work when determined by the Engineer that the work is not covered by any of the various items for which there is a bid price or by combinations of those items. In the event portions of this work are determined by the Engineer to be covered by some of the various items for which there is a bid price or combinations of those items, the remaining portion of the work will be classed as extra work. Extra work also includes work specifically designated as extra work in the plans or Specifications.

The Contractor shall do the extra work and furnish all labor, material and equipment therefor upon receipt of an accepted Contract change order or other written order of the Engineer, and in the absence of an accepted Contract change order or other written order of the Engineer the Contractor shall not be entitled to payment for the extra work.

Payment for extra work required to be performed pursuant to the provisions in this Section 4-1.03D, in the absence of an executed Contract change order, will be made by force account as provided in Section 9-1.03; or as agreed to by the Contractor and the Engineer.

4-1.04 DETOURS

The Contractor shall construct and remove detours and detour bridges for the use of public traffic as provided in the Contract Documents or as directed by the Engineer. Payment for this work will be made as set forth in the Contract Documents or at the Contract prices for the items of work involved if the work being performed is covered by Contract items of work and no other method of payment therefor is provided in the special provisions, otherwise the work will be paid for as extra work as provided in Section 4-1.03D.

The cost of repairing damage to detours caused by public traffic will be paid for as extra work as provided in Section 4-1.03D.

When public traffic is routed through the work, provision for a passageway through construction operations will not be considered as detour construction or detour maintenance, and this work shall conform to and be paid for as provided in Section 7-1.08, "Public Convenience," unless otherwise specified in the Specifications..



Detours used exclusively by the Contractor for hauling materials and equipment shall be constructed and maintained by the Contractor at the Contractor's expense.

The failure or refusal of the Contractor to construct and maintain detours at the proper time shall be sufficient cause for closing down the work until the detours are in satisfactory condition for use by public traffic.

Where the Contractor's hauling is causing such damage to the detour that its maintenance in a condition satisfactory for public traffic is made difficult or costly, the Engineer shall have authority to regulate the Contractor's hauling over the detour.

#### 4-1.05 USE OF MATERIALS FOUND ON THE WORK

Unless designated as selected material as provided in these Specifications, the Contractor, with the acceptance of the Engineer, may use in the proposed construction such stone, gravel, sand or other material suitable in the opinion of the Engineer as may be found in excavation. The Contractor will be paid for the excavation of those materials at the Contract price for the excavation, but the Contractor shall replace at the Contractor's expense with other suitable material all of that portion of the material so removed and used which was contemplated for use in the work, except that the Contractor need not replace, at the Contractor's expense, any material obtained from structure excavation used as structure backfill. No charge for materials so used will be made against the Contractor. The Contractor shall not excavate or remove any material from within the highway location that is not within the excavation, as indicated by the slope and grade lines, without written authorization from the Engineer.

*This page intentionally left  
blank*

## **SECTION 5: CONTROL OF WORK**

### **5-1.01 AUTHORITY OF ENGINEER**

The Engineer shall decide all questions which may arise as to the quality or acceptability of materials furnished and work performed and as to the manner of performance and rate of progress of the work; all questions which may arise as to the interpretation of the plans and Specifications; all questions as to the acceptable fulfillment of the Contract on the part of the Contractor; and all questions as to compensation. The Engineer's decision shall be final, and the Engineer shall have authority to enforce and make effective those decisions and orders which the Contractor fails to carry out promptly.

### **5-1.02 PLANS AND WORKING DRAWINGS**

The Contract plans furnished consist of general drawings and show such details as are necessary to give a comprehensive idea of the construction contemplated. All authorized alterations affecting the requirements and information given on the Contract plans shall be in writing.

The Contract plans shall be supplemented by such working drawings prepared by the Contractor as are necessary to adequately control the work. No change shall be made by the Contractor in any working drawing after it has been accepted by the Engineer.

Working drawings for any part of the permanent work shall include, but not be limited to stress sheets, anchor bolt layouts, shop details, erection plans, equipment lists and any other information specifically required elsewhere in the Specifications.

Working drawings for cribs, cofferdams, falsework, temporary support systems, haul bridges, centering and form work and for other temporary work and methods of construction the Contractor proposes to use, shall be submitted when required by the Contract Documents or ordered by the Engineer. Working drawings shall be subject to City of Vallejo review insofar as the details affect the character of the finished work and for compliance with design requirements applicable to the construction when specified or called for, but details of design will be left to the Contractor who shall be responsible for the successful construction of the work.

Working drawings shall be reviewed by the Engineer before any work involving the drawings is performed. It is expressly understood that review of the Contractor's working drawings shall not relieve the Contractor of any responsibility under the Contract for the successful completion of the work in conformity with the requirements of the plans and Specifications. Review of working drawings shall not operate to waive any of the requirements of the plans and Specifications or relieve the Contractor of any obligation thereunder, and defective work, materials and equipment may be rejected notwithstanding the review.

Full compensation for furnishing all working drawings shall be considered as included in the prices paid for the Contract items of work to which the drawings relate and no

additional compensation will be allowed therefor.

#### 5-1.02A TRENCH EXCAVATION SAFETY PLANS

Attention is directed to Section 7-1.01E, "Trench Safety." Excavation for any trench 1.5 m {5 feet} or more in depth shall not begin until the Contractor has prepared detailed plans for worker protection from the hazards of caving ground during the excavation of that trench. The detailed plan shall show the details of the design of shoring, bracing, sloping or other provisions to be made for worker protection during the excavation. No plan shall allow the use of shoring, sloping or a protective system less effective than that required by the Construction Safety Orders of the Division of Occupational Safety and Health. If the plan complies with the shoring system standards established by the Construction Safety Orders, the plan shall be submitted at least 5 days before the Contractor intends to begin excavation for the trench. If the plan varies from the shoring system standards established by the Construction Safety Orders, the plan shall be prepared and signed by an engineer who is registered as a Civil Engineer in the State of California, and the plan and design calculations shall be submitted at least 3 weeks before the Contractor intends to begin excavation for the trench.

#### 5-1.03 CONFORMITY WITH CONTRACT DOCUMENTS AND ALLOWABLE DEVIATIONS

Contractor's work and materials shall strictly conform to the lines, grades, typical cross sections, dimensions and material requirements, including tolerances, required in the Contract Documents. Although measurement, sampling and testing may be considered evidence as to conformity, the Engineer shall be the sole judge as to whether the work or materials deviate from the plans and Specifications, and the Engineer's decision as to any allowable deviations therefrom shall be final.

#### 5-1.04 COORDINATION AND INTERPRETATION OF PLANS, SPECIFICATIONS AND STANDARD SPECIFICATIONS

These project plans, Specifications, special provisions, Contract change orders and all supplementary documents are essential parts of the Contract, and a requirement occurring in one Contract Document is as binding as though occurring in all. They are intended to be complementary, and to describe and provide for a complete work.

In the event of a conflict between the project plans, Specifications or special provisions, and Standard Plans and Standard Specifications of the State of California, Business, Transportation and Housing Agency, Department of Transportation, 2010 edition, City of Vallejo Standard Specifications and Standard Plans, December 2011 edition, or Vallejo Sanitation & Flood Control District Master Bid Document, dated March 2007, the project plans, and Specifications shall control. Project plans shall govern over Standard Plans; Standard Plans and project plans shall govern over the Standard Specifications; and the special provisions shall govern over both the Standard Specifications and the project plans. The specific shall control over the general.

Should it appear that the work to be done or any of the matters relative thereto are not

sufficiently detailed or explained in the Contract Documents, the Contractor shall apply in writing to the Engineer for such further explanations as may be necessary and shall conform to them as part of the Contract. In the event of any doubt or question arising respecting the true meaning of the Contract Documents, reference in writing shall be made to the Engineer, whose decision thereon shall be final.

In the event of any discrepancy between any drawing and the figures written thereon, the figures shall be taken as correct. Detail drawings shall prevail over general drawings.

#### 5-1.05A ORDER OF WORK

When required by the Contract Documents, the Contractor shall follow the sequence of operations as set forth therein.

Full compensation for conforming to those requirements will be considered as included in the prices paid for the various Contract items of work and no additional compensation will be allowed therefor.

#### 5-1.05B HOURS OF WORK

Regular working hours are 8:00 a.m. to 4:30 p.m., Monday through Friday, excluding holidays observed by the City. No work outside of the regular working hours shall be done unless previously requested by the Contractor in writing and approved by the Engineer in writing. Contractor is subject to reimbursing the City for the costs of providing inspection outside of regular working hours.

#### 5-1.06 SUPERINTENDENCE

The Contractor shall designate in writing before starting work, an authorized representative who shall act as Superintendent and have the authority to represent and act for the Contractor. The Superintendent shall have responsibility for overall project operations and shall not be a "working foreman."

When the Contractor is comprised of 2 or more persons, firms, partnerships or corporations functioning on a joint venture basis, the Contractor shall designate in writing before starting work, the name of one authorized representative who shall serve as the Superintendent. And shall have the authority to represent and act for the Contractor.

The Superintendent shall be present at the site of the work at all times while work is actually in progress on the Contract. When work is not in progress and during periods when work is suspended, arrangements acceptable to the Engineer shall be made for any emergency work which may be required.

Whenever the Contractor or the Contractor's Superintendent is not present on any particular part of the work where it may be desired to give direction, orders will be given by the Engineer, which shall be received and obeyed by the foreman or other individual who may have charge of the particular work in reference to which the orders are given.

Any order given by the Engineer, not otherwise required by the Specifications to be in writing, will on request of the Contractor, be given or confirmed by the Engineer in writing.

#### 5-1.07 LINES AND GRADES

Stakes or marks for horizontal and vertical control will be set by the Engineer as the Engineer determines to be necessary to establish the lines and grades required for the completion of the work specified in these Contract Documents.

When the Contractor requires the stakes or marks, the Contractor shall notify the Engineer of the requirements in writing a reasonable length of time in advance of starting operations that require the stakes or marks. In no event, shall a notice of less than 2 working days be considered a reasonable length of time.

Stakes and marks set by the Engineer shall be carefully preserved by the Contractor. In case the stakes and marks are destroyed or damaged, the Contractor will be charged for the cost of necessary replacement or restoration of stakes and marks. This charge will be deducted from any moneys due or to become due the Contractor.

#### 5-1.08 INSPECTION

The Engineer shall, at all times, have safe access to the work during its construction, and shall be furnished with every reasonable facility for ascertaining that the materials and the workmanship are in accordance with the requirements and intentions of the Contract Documents. All work done and all materials furnished shall be subject to the Engineer's inspection.

Neither the inspection by an inspector, City of Vallejo, Engineer, nor any measurement, approved or unapproved modification, Submittals, shop drawing, order, or certificate, nor acceptance of any part or whole of the work, or payment of money, nor any possession or use by the City of Vallejo or its agents, shall operate as a waiver of any provisions of the Contract or of any power or authority reserved therein, or of any right to damages thereunder; nor shall the waiver of any breach of this Contract be held to be a waiver of any subsequent or other breach.

Projects financed in whole or in part with State or Federal funds shall be subject to inspection at all times by the State or Federal agency involved, or their authorized representative.

#### 5-1.09 REMOVAL OF REJECTED AND UNAUTHORIZED WORK

All work which has been rejected shall be remedied, or removed and replaced by the Contractor in a manner acceptable to the Engineer, and no compensation will be allowed to the Contractor for the removal, replacement or remedial work.

Any work done beyond the lines and grades shown on the plans or established by the Engineer, or any extra work done without written authority will be considered as

unauthorized work and will not be paid for. Upon order of the Engineer unauthorized work shall be remedied, removed or replaced at the Contractor's expense.

Upon failure of the Contractor to comply promptly with any order of the Engineer made under this Section 5-1.09, the City of Vallejo may cause rejected or unauthorized work to be remedied, removed or replaced, and to deduct the costs from any moneys due or to become due the Contractor.

#### 5-1.10 EQUIPMENT AND PLANTS

Only equipment and plants suitable to produce the quality of work and materials required will be permitted to operate on the project.

Plants shall be designed and constructed in accordance with general practice for the equipment and shall be of sufficient capacity to ensure the production of sufficient material to carry the work to completion within the time limit.

The Contractor shall provide adequate and suitable equipment and plants to meet the above requirements, and when ordered by the Engineer shall remove unsuitable equipment from the work and discontinue the operation of unsatisfactory plants.

The Contractor shall identify each piece of equipment, other than hand tools, by means of an identifying number plainly stenciled or stamped on the equipment at a conspicuous location, and shall furnish to the Engineer a list giving the description of each piece of equipment and its identifying number. In addition, the make, model number and empty gross mass of each unit of compacting equipment shall be plainly stamped or stenciled in a conspicuous place on the unit. The gross mass shall be either the manufacturer's rated mass or the scale weight, expressed in metric units {United States Standard Measures}.

The make, model, serial number and manufacturer's rated capacity in metric units {United States Standard Measures} for each scale shall be clearly stamped or stenciled on the load receiving element and its indicator or indicators. All meters shall be similarly identified, rated and marked. Upon request of the Engineer, the Contractor shall furnish a statement by the manufacturer, designating sectional and weighbridge capacities of portable vehicle scales.

#### 5-1.11 ALTERNATIVE EQUIPMENT

While certain of the Contract Documents may provide that equipment of a particular size and type is to be used to perform portions of the work, it is to be understood that the development and use of new or improved equipment is to be encouraged.

The Contractor may request, in writing, permission from the Engineer to use equipment of a different size or type in place of the equipment specified.

The Engineer, before considering or granting the request, may require the Contractor to

furnish, at the Contractor's expense, evidence satisfactory to the Engineer that the equipment proposed for use by the Contractor is capable of producing work equal to, or better than, that which can be produced by the equipment specified.

If permission is granted by the Engineer, it shall be understood that the permission is granted for the purpose of testing the quality of work actually produced by the equipment and is subject to continuous attainment of results which, in the opinion of the Engineer, are equal to, or better than, that which can be obtained with the equipment specified. The Engineer shall have the right to withdraw permission at any time that the Engineer determines that the alternative equipment is not producing work that is equal, in all respects, to that which can be produced by the equipment specified. Upon withdrawal of permission by the Engineer, the Contractor will be required to use the equipment originally specified and shall, in accordance with the directions of the Engineer, remove and dispose of or otherwise remedy, at the Contractor's expense, any defective or unsatisfactory work produced with the alternative equipment.

The Contractor shall not have any claim against the City of Vallejo for either the withholding or the granting of permission to use alternative equipment, or for the withdrawal of the permission.

Permission to use alternative equipment in place of equipment specified will only be granted where the equipment is new or improved and its use is deemed by the Engineer to be in furtherance of the purposes of this Section 5-1.11. The permission for use of particular equipment on any project shall in no way be considered as permission of the use of the equipment on any other project.

Nothing in this Section 5-1.11 shall relieve the Contractor of the responsibility for furnishing materials or producing finished work of the quality specified in the Contract Documents

#### 5-1.12 ALTERNATIVE METHODS OF CONSTRUCTION

Whenever the plans or Specifications provide that more than one specified method of construction or more than one specified type of material or construction equipment may be used to perform portions of the work and leave the selection of the method of construction or the type of material or equipment to be used up to the Contractor, it is understood that the City of Vallejo does not guarantee that every or any specified method of construction or type of material or equipment can be used successfully throughout all or any part of any project. It shall be the Contractor's responsibility to select and use the alternative or alternatives which will satisfactorily perform the work under the conditions encountered. In the event some of the alternatives are not feasible or it is necessary to use more than one of the alternatives on any project, full compensation for any additional cost involved shall be considered as included in the Contract price paid for the item of work involved and no additional compensation will be allowed therefor.

#### 5-1.13 DIFFERING SITE CONDITIONS

During the progress of the work, if subsurface or latent physical conditions are



encountered at the site differing materially from those indicated in the Contract or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the Contract, are encountered at the site, the Contractor shall promptly notify the Engineer in writing of the specific differing conditions before they are disturbed and before the affected work is performed.

Upon written notification, the Engineer will investigate the conditions, and if the Engineer determines that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the Contract, an adjustment, excluding loss of anticipated profits, will be made and the Contract modified in writing accordingly. The Engineer will notify the Contractor of the Engineer's determination whether or not an adjustment of the Contract is warranted.

No Contract adjustment which results in a benefit to the Contractor will be allowed unless the Contractor has provided the required written notice. Contractor agrees that failure to provide written notice to Engineer as required herein, or failure to otherwise abide by this Section, shall be a waiver by Contractor of any claim, demand, compensation or adjustment in the Contract time or working days.

No Contract adjustment will be allowed under the provisions specified in this section for any effects caused on unchanged work.

Any Contract adjustment warranted due to differing site conditions will be made in conformance with the provisions in Section 4-1.03, "Changes," except as otherwise provided.

#### 5-1.14 CHARACTER OF WORKERS

If any subcontractor or person employed by the Contractor shall appear to the Engineer to be incompetent or to act in a disorderly or improper manner, they shall be discharged immediately on the request of the Engineer, and that person shall not again be employed on the work.

#### 5-1.15 FINAL INSPECTION

When the work has been completed, the Engineer will make the final inspection.

#### 5-1.16 MEANS AND METHODS

City of Vallejo will not have control over, be in charge of, nor be responsible for construction means, methods, techniques, sequences, or procedures, or for the safety precautions and programs in connection with the work, since these are solely Contractor's responsibility.

The City of Vallejo or adjacent property owner may perform other work adjacent to or within the project area, concurrent with the Contractor's operations. The Contractor shall

cooperate fully with City of Vallejo in all operations which coincide with other work being performed, and provide City of Vallejo with such scheduling and other information as may be required by City of Vallejo to perform such other work. The Contractor shall conduct operations to minimize interference with the work of other forces or contractors performing such work. This work performed by a second contractor may include work which is incomplete or in dispute with the Contractor.

Any disputes or conflicts which may arise between the Contractor and any other forces or contractors retained by the City of Vallejo, causing delays or hindrance to each other, shall be referred to the Engineer for resolution.

The City of Vallejo shall have the right at any time during the progress of this work to take over and place in service any completed or partially completed portion of the work, notwithstanding the time for completion of the entire work or such portions which may not have expired; but such taking possession thereof shall not be deemed an acceptance of any of the work, nor work on those portions not completed in accordance with the Contract Documents.

## SECTION 6: CONTROL OF MATERIALS

### 6-1 GENERAL

#### 6-1.01 SOURCE OF SUPPLY AND QUALITY OF MATERIALS

The Contractor shall furnish all materials required to complete the work, except materials that are designated in the Specifications to be furnished by the City of Vallejo and materials furnished by the City of Vallejo in conformance with the provisions in Section 9-1.03, "Force Account Payment."

Only materials conforming to the requirements of the Contract Documents shall be incorporated in the work.

The materials furnished and used shall be new, except as may be provided elsewhere in the Contract Documents. The materials shall be manufactured, handled and used in a workmanlike manner to ensure completed work in accordance with the plans and Specifications.

Materials to be used in the work will be subject to inspection and tests by the Engineer or the Engineer's designated representative. The Contractor shall furnish without charge such samples as may be required.

The Contractor shall furnish the Engineer a list of the Contractor's sources of materials and the locations at which those materials will be available for inspection. The list shall be submitted on a form acceptable to the Engineer and shall be furnished to the Engineer in sufficient time to permit inspecting and testing of materials to be furnished to the listed sources in advance of their use. The Engineer may inspect, sample or test materials at the source of supply or other locations, but the inspection, sampling or testing will not be undertaken until the Engineer is assured by the Contractor of the cooperation and assistance of both the Contractor and the supplier of the material. The Contractor shall assure that the Engineer or the Engineer's authorized representative has free access at all times to the material to be inspected, sampled or tested. It is understood that the inspections and tests if made at any point other than the point of incorporation in the work in no way shall be considered as a guaranty of acceptance of the material nor of continued acceptance of material presumed to be similar to that upon which inspections and tests have been made, and that inspection and testing performed by the City of Vallejo shall not relieve the Contractor or the Contractor's suppliers of responsibility for quality control.

Manufacturers' warranties, guaranties, instruction sheets and parts lists, which are furnished with certain articles or materials incorporated in the work, shall be delivered to the Engineer before acceptance of the Contract.

Reports and records of inspections made and tests performed, when available at the site of the work, may be examined by the Contractor.

## 6-1.02 CITY FURNISHED MATERIALS

Materials which are listed as City of Vallejo-furnished materials in the special provisions will be available to the Contractor free of charge.

The Contractor shall submit a written request to the Engineer for the delivery of City of Vallejo-furnished material at least 15 days in advance of the date of its intended use. The request shall state the quantity and the type of each material.

The City of Vallejo-furnished materials will be available to the Contractor free of charge will be designated in the special provisions. In those cases the materials shall be hauled to the site of the work by the Contractor at the Contractor's expense, including any necessary loading and unloading that may be involved. All costs of handling and placing City of Vallejo-furnished material shall be considered as included in the price paid for the Contract item involving the City of Vallejo-furnished material.

The Contractor shall be responsible for all City of Vallejo-furnished materials furnished to the Contractor, and shall pay all demurrage and storage charges. City of Vallejo-furnished materials lost or damaged from any cause whatsoever shall be replaced by the Contractor at the Contractor's expense. The Contractor shall be liable to the City of Vallejo for the cost of replacing City of Vallejo-furnished material, and those costs may be deducted from any moneys due or to become due the Contractor. All City of Vallejo-furnished material that is not used on the work shall remain the property of the City of Vallejo and shall be delivered to the Engineer's designated location at no cost to the City.

## 6-1.03 STORAGE OF MATERIALS

Articles or materials to be incorporated in the work shall be stored in such a manner as to ensure the preservation of their quality and fitness for the work, and to facilitate inspection.

## 6-1.04 DEFECTIVE MATERIALS

All materials which the Engineer has determined do not strictly conform to the requirements of the Contract Documents will be rejected whether in place or not. The rejected materials shall be removed immediately from the site of the work, unless otherwise permitted in writing by the Engineer. No rejected material, the defects of which have been subsequently corrected, shall be used in the work, unless authorization in writing has been given by the Engineer. Upon failure of the Contractor to comply promptly with any order of the Engineer made under the provisions in this section, the Engineer shall have authority to cause the removal and replacement of rejected material and to deduct the cost thereof from any moneys due or to become due the Contractor.

If nonconforming work, materials, or equipment not meeting the requirements and intent of the Contract Documents is discovered, and the Contractor fails to remedy the nonconforming work, materials, or equipment, or the City of Vallejo agrees in writing to accept the nonconforming work, materials, or equipment, Contractor agrees to sign a

Contract Change Order or otherwise reimburse City of Vallejo in a sum equal to the cost to remedy the nonconforming work, materials, or equipment. It is expressly understood and agreed that the City of Vallejo will be entitled to recover from Contractor the full cost of remedying nonconforming work, materials, or equipment, and that diminution in value will not be considered as a method for valuing the City of Vallejo's damages for nonconforming work, materials, or equipment, and further that the doctrine of economic waste will not be a defense to the City of Vallejo's recovery from Contractor of the full and complete cost and expense of remedying nonconforming work, materials, or equipment.

Re-examination of any work may be ordered by the Engineer, and such work must be uncovered by the Contractor. The Contractor shall pay the entire cost of such uncovering, re-examination, and replacement if the work does not conform to the Contract Documents.

#### 6-1.05 TRADE NAMES AND ALTERNATIVES

For convenience in designation on the Contract Documents, certain articles or materials to be incorporated in the work may be designated under a trade name or the name of a manufacturer and the manufacturer's catalogue information. The use of an alternative article or material which is of equal or superior quality and of the required characteristics for the purpose intended will be permitted, subject to the following requirements:

The burden of proof as to the quality and suitability of alternatives shall be upon the Contractor, and the Contractor shall furnish all information necessary as required by the Engineer. The Engineer shall be the sole judge as to the quality and suitability of alternative articles or materials, and the Engineer's decision shall be final.

Whenever the Contract Documents permit the substitution of a similar or equivalent material or article, no tests or action relating to the acceptance of the substitute material will be made until the request for substitution is made in writing by the Contractor accompanied by complete data as to the equality of the material or article proposed. Request for such substitution shall be made in writing by the Contractor within thirty (30) days of the Notice to Proceed. Failure by the Contractor to request substitution within thirty (30) days of the Notice to Proceed constitutes an agreement by Contractor to furnish only the materials or equipment listed in the Contract Documents. Until and unless such substitutions are authorized in writing by the Engineer, no deviations from the specifications shall be allowed.

#### 6-1.06 PLANT INSPECTION

The Engineer may inspect the production of material or the manufacture of products at the source of supply.

Plant inspection, however, will not be undertaken until the Engineer is assured of the cooperation and assistance of both the Contractor and the material producer. The Engineer or the Engineer's authorized representative shall have free entry at all times to those parts of the plant as concerns the manufacture or production of the materials.

Adequate facilities shall be furnished free of charge to make the necessary inspection. The City of Vallejo assumes no obligation to inspect materials at the source of supply.

#### 6-1.07 CERTIFICATES OF COMPLIANCE

A Certificate of Compliance shall be furnished prior to the use of any materials for which the Contract Documents require that a certificate be furnished. In addition, when so authorized in the Contract Documents, the Engineer may permit the use of certain materials or assemblies prior to sampling and testing if accompanied by a Certificate of Compliance. The certificate shall be signed by the manufacturer of the material or the manufacturer of assembled materials and shall state that the materials involved comply in all respects with the requirements of the Contract Documents. A Certificate of Compliance shall be furnished with each lot of material delivered to the work and the lot so certified shall be clearly identified in the certificate.

Materials used on the basis of a Certificate of Compliance may be sampled and tested at any time. The fact that material is used on the basis of a Certificate of Compliance shall not relieve the Contractor of responsibility for incorporating material in the work which conforms to the requirements of the Contract Documents, and any material not conforming to the requirements will be subject to rejection whether in place or not.

The City of Vallejo reserves the right to refuse to permit the use of material on the basis of a Certificate of Compliance.

The form of the Certificate of Compliance and its disposition shall be as directed by the Engineer.

#### 6-1.08 FOREIGN MATERIALS

Materials which are manufactured, produced or fabricated outside of the United States shall be delivered to a distribution point in California, unless otherwise required in the Contract Documents, where they shall be retained for a sufficient period of time to permit inspection, sampling and testing.

Attention is directed to the provisions in Section 8-1.07, "Liquidated Damages." The Contractor shall not be entitled to an extension of time for acts or events occurring outside of the United States, and it shall be the Contractor's responsibility to deliver materials obtained from outside of the United States to the point of entry into the continental United States in sufficient time to permit timely delivery to the job site.

The Contractor, at no cost to the City of Vallejo, shall supply the facilities and arrange for any testing required in California which the City of Vallejo is not equipped to perform. All testing by the Contractor shall be subject to witnessing by the Engineer.

The manufacturer, producer or fabricator of foreign material shall furnish to the Engineer a Certificate of Compliance in conformance with the provisions in Section 6-1.07, "Certificates of Compliance." In addition, certified mill test reports clearly identifiable to the lot of material shall be furnished where required in the Contract Documents or

otherwise requested by the Engineer.

If the welding of steel for structural steel members or the casting and prestressing of precast, prestressed concrete members is to be performed outside of the United States, the following requirements shall apply:

- A. The fabrication shall be performed only within the plants and by fabricators who have previously established, to the satisfaction of the Engineer, that they have the experience, knowledge, trained manpower, quality controls, equipment and other facilities required to produce the quality and quantity of work required. At the option of the Engineer, prequalification of the plant and fabricator will be established either by the submission of detailed written proof thereof or through in-plant inspection by the Engineer or the Engineer's representative, or both.
- B. The Contractor shall make written application to the Engineer for acceptance for the foreign fabrication at the earliest possible time and in no case later than 50 days in advance of the planned start of fabrication. The application shall list the specific units or portion of a work which will be fabricated outside of the United States.
- C. The Contractor shall advise the Engineer, in writing, at least 20 days in advance of the actual start of any of the foreign fabrication.
- D. All documents pertaining to the Contract, including but not limited to, correspondence, bid documents, working drawings and data shall be written in the English language and all numerical data shall use the International System of Units (SI) {United States Standard Measures} for measurement.

The use of steel manufactured outside of the United States as unidentified stock material, as provided in Section 55-2.07, "Unidentified Stock Material," will not be allowed.

#### 6-1.09 STATE SPECIFICATION NUMBERS

The State Specification number of material furnished on the Contract shall conform to the number specified in these Specifications or the special provisions for the material involved, except that material conforming to a later specification issue will be acceptable.

#### 6-2 LOCAL MATERIALS

##### 6-2.01 GENERAL

Local material is rock, sand, gravel, earth or other mineral material, other than local borrow or selected material, obtained or produced from sources in the vicinity of the work specifically for use on the project. Local material does not include materials obtained from established commercial sources.

Local materials shall be furnished by the Contractor from any source the Contractor may elect, except that when mandatory local material sources of certain materials are designated in the Contract Documents, the Contractor shall furnish material from those designated mandatory sources.

The Contractor shall be responsible for making all arrangements necessary to obtain materials from any local material source other than a mandatory local material source. If the Contractor elects to obtain materials from a possible local material source, subject to the provisions in Section 6-2.02, "Possible Local Material Sources," the Contractor shall comply with the requirements of that section. If the Contractor elects to obtain material from any other non-mandatory source, the Contractor shall furnish the Engineer with satisfactory evidence that the Contractor has entered into an agreement with the property owner for obtaining material from that source and with copies of any necessary permits, licenses and environmental clearances before removing any material from those sources.

The furnishing of local materials from any source is subject to the provisions in Section 2-1.03, "Examination of Plans, Specifications, Contract, and Site of Work," and in Section 6-2, "Local Materials."

Unless described in the Contract Documents as a mandatory local material source, or authorized in writing by the Engineer, material sources shall not be excavated at locations where the resulting scars will present an unsightly appearance from any highway. No payment will be made for material obtained in violation of this provision.

The Contractor shall, at the Contractor's expense, make any arrangements necessary for hauling over local public and private roads from any source.

When requested by the Contractor in writing, the City of Vallejo will test materials from any local material source, which has not been previously tested, at Contractor's cost and expense.

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in conforming to the provisions in this Section 6-2.01, for furnishing and producing materials from any source shall be considered as included in the price paid for the Contract item of work involving the material and no additional compensation will be allowed therefor.

## 6-2.02 POSSIBLE LOCAL MATERIAL SOURCES

Where the City of Vallejo has made arrangements with owners of land in the vicinity of a project for the obtaining of material from an owner's property, the arrangements are made solely for the purpose of providing all Bidders an equal opportunity to obtain material from that property. Bidders or Contractors may, upon written request, inspect the documents evidencing those arrangements between property owners and the City of Vallejo. The Contractor may, if the Contractor so elects, exercise any rights that have been obtained, which may be exercised by a Contractor under the arrangements, subject to and upon the conditions hereinafter set forth.



Arrangements made by the City of Vallejo are not a part of the Contract, and it is expressly understood and agreed that the City of Vallejo assumes no responsibility to the Bidder or Contractor whatsoever in respect to the arrangements made with the property owner to obtain materials therefrom and that the Contractor shall assume all risks in connection with the use of the property, the terms upon which the use shall be made, and there is no warranty or guaranty, either express or implied, as to the quality or quantity of materials that can be obtained or produced from the property or the type or extent of processing that may be required in order to produce material conforming to the requirements of the Contract Documents.

In those instances in which the City of Vallejo has compiled "Materials Information" as referred to in Section 2-1.03, "Examination of Plans, Specifications, Contract, and Site of Work," the compilation may include the documents setting forth the arrangement made with some of the property owners for the obtaining of material from those owners' properties. The inclusion of these documents therein shall not in any respect operate as a waiver of any of the provisions in this Section 6-2.02 concerning the documents.

All necessary permits, licenses and environmental clearances needed to enable the Contractor to use a possible local material source for which the "Materials Information" compilation for the project does not include permits, licenses and environmental clearances issued to the City of Vallejo (whether or not the arrangement made by the City of Vallejo with the owner of the property is included in the compilation) shall be obtained by the Contractor, and copies thereof shall be furnished the Engineer before any material is removed from the source.

The Bidder and Contractor shall make such independent investigation and examination as the Contractor deems necessary to be satisfied as to the quality and quantity of materials available from the property, the type and extent of processing that may be required in order to produce material conforming to the requirements of the Contract Documents and the rights, duties and obligations acquired or undertaken under the arrangement with the property owner.

Notwithstanding that the Contractor may elect to obtain materials from any such property owner's property, no material may be obtained from the property unless the Contractor has first either:

- A. Executed a document that will guarantee to hold the owner harmless from all claims for injury to persons or damage to property resulting from the Contractor's operations on the property owner's premises and also agree to conform to all other provisions set forth in the arrangement made between the City of Vallejo and the property owner, or
- B. Entered into an agreement with the owner of the material source on any terms mutually agreeable to the owner and the Contractor, provided that the Contractor shall furnish to the Engineer a release, in a form satisfactory to the Engineer, executed by the owner, relieving the City of Vallejo of any and all obligations under the City of Vallejo's arrangement with the owner.

If the Contractor elects to obtain material under (1), the use of the site shall be subject to the terms, conditions and limitations of the arrangement made between the property owner and the City of Vallejo, and the Contractor shall pay the charges as are provided for in the arrangement made by the City of Vallejo with the property owner. Deductions will be made from any moneys due or that may become due the Contractor under the Contract sufficient to cover the charges for the material removed.

If the Contractor elects to obtain material under (2), the Contractor shall pay the charges as are provided for in the agreement between the owner and the Contractor, and deductions will not be made from any moneys due or that may become due the Contractor under the Contract to cover the charges.

Before acceptance of the Contract, the Engineer may require the Contractor to submit written evidence that the owner of the material source is satisfied that the Contractor has satisfactorily complied with the provisions of either— (1), the arrangement between the City of Vallejo and the owner, or (2), the agreement between the owner and the Contractor, as the case may be.

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing and producing specified materials from possible local material sources, including the construction of any access roads or fences and any clearing, grubbing and stripping of material sources, and all processing of whatever nature and extent required, shall be considered as included in the price paid for the Contract item of work involving the material and no additional compensation will be allowed therefor.

#### 6-2.03 MANDATORY LOCAL MATERIAL SOURCES

The Contractor shall perform all work required to obtain and produce acceptable materials from the mandatory local material sources designated in the Contract Documents and shall have no right to obtain the materials from any other source or sources. As part of the work in producing acceptable materials from the mandatory sources, it will be necessary for the Contractor to perform certain processing of the material as set forth in the Contract Documents. Any processing of the material required in addition to that specified in the Contract Documents which, in the opinion of the Engineer, is necessary to produce acceptable material from the mandatory sources will be paid for as extra work as provided in Section 4-1.03D.

If the Engineer determines that the designated mandatory local material source or sources are no longer to be used because they are exhausted or for other reasons, the Engineer will designate an alternative mandatory local material source or sources from which the Contractor shall obtain the balance of the material required.

In this case the City of Vallejo will pay the Contractor for the cost of moving the Contractor's plant to the new mandatory source and erecting the plant as extra work as provided in Section 4-1.03D. Construction of access roads, fences, clearing and grubbing or stripping of the new mandatory source, ordered by the Engineer to be performed, will

be paid for as extra work as provided in Section 4-1.03D. The City of Vallejo will also allow or deduct, as the case may be, the increase or decrease in haul cost due to an increase or decrease in the length of haul involved. Increased haul costs will be paid for as extra work as provided in Section 4-1.03D, and deductions for decreased haul will be determined in the same manner. No allowance or additional compensation will be made for lost time or for delay in completing the work due to moving the Contractor's plant from the designated mandatory source to the alternative mandatory source, other than an extension of time pursuant to the provisions in Section 8-1.07, "Liquidated Damages." Any processing of the material required in addition to that specified in the special provisions for the originally designated mandatory source which, in the opinion of the Engineer, is necessary to produce acceptable material from the alternative mandatory source will be paid for as extra work as provided in Section 4-1.03D. The Contractor will be charged the same royalty as provided in the special provisions for the original designated mandatory local material source.

The Contractor shall, prior to entering a mandatory local material source or an alternative mandatory local material source, execute a document that will guarantee to hold the owner of the property harmless from all claims for injury to persons or damage to property resulting from the Contractor's operations on the property owner's premises. The document will be prepared by the Engineer for execution by the Contractor.

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in obtaining and producing specified materials from mandatory sources, including the construction of any access roads or fences and any clearing, grubbing and stripping of mandatory local material sources, except as otherwise provided for in this Section 6-2.03, shall be considered as included in the price paid for the Contract item of work involving the material and no additional compensation will be allowed therefor.

### 6-3 TESTING

#### 6-3.01 GENERAL

All materials incorporated in the project shall meet the requirements of tests specified in the Standard Specifications and other minimum requirements specified herein or in the Contract documents.

The Contractor shall furnish written laboratory reports from a reputable testing or inspection agency, or written certification from the manufacturer as to compliance with the Specifications as to the composition, durability and performance of the all materials used in the project. Certain specification sections may require special items or materials to be included in the submittal. Reference is made to the technical specifications Section D for specific instructions.

These reports on any material must be submitted to the Engineer in writing and approved by the Engineer before incorporating that material in the work. All materials shall be adequately identified by tags or other means as that material which has been tested and

approved. Lack of proper identification shall be considered adequate cause for rejection of any material, which cannot be properly inspected on the job.

The City reserves the right to make such additional inspections or tests as it may require prior to acceptance of any materials, and also reserves the right to reject any material previously approved because of serious defects or damage discovered subsequent to such acceptance. Any material rejected by the City shall immediately be removed from the job site, and no payment will be allowed therefor.

The Contractor shall bear the expense for all unsatisfactory tests and deductions will be made from any moneys due or to become due the Contractor, sufficient to cover the cost of the tests.

Unless otherwise specified, all tests shall be performed in accordance with the methods used by the City of Vallejo Water Department and shall be made by the Engineer or the Engineer's designated representative.

The State of California has developed methods for testing the quality of materials and work. These methods are identified by number and are referred to in the Specifications as California Test. Copies of individual California Tests are available at the Transportation Laboratory, Sacramento, California, and will be furnished to interested persons upon request.

Whenever the Specifications require compliance with specified values for the following properties, tests will be made by the California Test indicated unless otherwise specified:

Properties	California Test
Relative Compaction	216 or 231
Sand Equivalent	217
Resistance (R-value)	301
Grading (Sieve Analysis)	202
Durability Index	229

Whenever a reference is made in the Specifications to a California Test by number, it shall mean the California Test in effect on the day the Notice to Contractors for the work is dated.

Whenever the Specifications provide an option between 2 or more tests, the Engineer will determine the test to be used.

Whenever a reference is made in the Specifications to a specification, manual or test designation either of the American Society for Testing and Materials, the American Association of State Highway and Transportation Officials, Federal Specifications or any other recognized national organization, and the number or other identification representing the year of adoption or latest revision is omitted, it shall mean the specification, manual or test designation in effect on the day the Notice to Contractors for

the work is dated. Whenever the specification, manual or test designation provides for test reports (such as certified mill test reports) from the manufacturer, copies of those reports, identified as to the lot of material, shall be furnished to the Engineer. The manufacturer's test reports shall supplement the inspection, sampling and testing provisions in Section 6, "Control of Materials," and shall not constitute a waiver of the City of Vallejo's right to inspect. When material which cannot be identified with specific test reports is proposed for use, the Engineer may, at the Engineer's discretion, select random samples from the lot for testing. Test specimens from the random samples, including those required for retest, shall be prepared in accordance with the referenced specification and furnished by the Contractor at the Contractor's expense. The number of the samples and test specimens shall be entirely at the discretion of the Engineer. Unidentified metal products, such as sheet, plate and hardware shall be subject to the requirements of Section 55-2.07, "Unidentified Stock Material."

When requested by the Engineer, the Contractor shall furnish, without charge, samples of all materials entering into the work, and no material shall be used prior to acceptance by the Engineer, except as provided in Section 6-1.07, "Certificates of Compliance." Samples of material from local sources shall be taken by or in the presence of the Engineer; otherwise, the samples will not be considered for testing.

#### 6-3.02 TESTING BY CONTRACTOR

The Contractor shall be responsible for controlling the quality of the material entering the work and of the work performed, and shall perform testing as necessary to ensure control. The test methods used for quality control testing shall be as determined by the Contractor. The results of the testing shall be made available to the Engineer upon request. These tests are for the Contractor's use in controlling the work and will not be accepted for use as acceptance tests.

Full compensation for performing quality control tests and making the results available to the Engineer shall be considered as included in the Contract prices paid for the various items of work involved and no additional compensation will be allowed therefor.

*This page intentionally left  
blank*

## **SECTION 7: LEGAL RELATIONS AND RESPONSIBILITY**

### **7-1.01 LAWS TO BE OBSERVED**

The Contractor shall keep fully informed of all existing and future laws, ordinances and regulations which in any manner affect those engaged or employed in the work, or the materials used in the work, or which in any way affect the conduct of the work, and of all orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. The Contractor shall at all times observe and comply with, and shall cause all the Contractor's agents and employees to observe and comply with all existing and future laws, ordinances, regulations, orders and decrees of bodies or tribunals having any jurisdiction or authority over the work; and shall protect and indemnify the City of Vallejo, and all officers and employees thereof connected with the work, including but not limited to the Director and the Engineer, against any claim or liability arising from or based on the violation of any law, ordinance, regulation, order or decree, whether by the Contractor or the Contractor's employees. If any discrepancy or inconsistency is discovered in the Contract Documents for the work in relation to any law, ordinance, regulation, order or decree, each Bidder and the Contractor shall forthwith report the same to the Engineer in writing.

#### **7-1.01A LABOR CODE REQUIREMENTS**

Attention is directed to the following requirements of the Labor Code:

##### **7-1.01A(1) HOURS OF LABOR**

Eight hours labor constitutes a legal day's work. The Contractor or any subcontractor under the Contractor shall forfeit, as a penalty to the State of California, \$25 for each worker employed in the execution of the Contract by the respective Contractor or subcontractor for each calendar day during which that worker is required or permitted to work more than 8 hours in any one calendar day and 40 hours in any one calendar week in violation of the requirements of the Labor Code, and in particular, Section 1810 to Section 1815, thereof, inclusive, except that work performed by employees of Contractors in excess of 8 hours per day, and 40 hours during any one week, shall be permitted upon compensation for all hours worked in excess of 8 hours per day at not less than one and one-half times the basic rate of pay, as provided in Section 1815 thereof.

##### **7-1.01A(2) PREVAILING WAGE**

The Contractor and any subcontractor under the Contractor shall comply with Labor Code Sections 1774 and 1775. Pursuant to Section 1775, the Contractor and any subcontractor under the Contractor shall forfeit to the City of Vallejo or political subdivision on whose behalf the Contract is made or awarded a penalty of not more than fifty dollars (\$50) for each calendar day, or portion thereof, for each worker paid less than the prevailing rates as determined by the Director of Industrial Relations for the work or craft in which the worker is employed for any public work done under the Contract by the Contractor or by any subcontractor under the Contractor in violation of the requirements

of the Labor Code and in particular, Labor Code Sections 1770 to 1780, inclusive. The amount of this forfeiture shall be determined by the Labor Commissioner and shall be based on consideration of the mistake, inadvertence, or neglect of the Contractor or subcontractor in failing to pay the correct rate of prevailing wages, or the previous record of the Contractor or subcontractor in meeting their respective prevailing wage obligations, or the willful failure by the Contractor or subcontractor to pay the correct rates of prevailing wages. A mistake, inadvertence, or neglect in failing to pay the correct rate of prevailing wages is not excusable if the Contractor or subcontractor had knowledge of the obligations under the Labor Code. In addition to the penalty and pursuant to Labor Code Section 1775, the difference between the prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the Contractor or subcontractor. If a worker employed by a subcontractor on a public works project is not paid the general prevailing per diem wages by the subcontractor, the prime Contractor of the project is not liable for the penalties described above unless the prime Contractor had knowledge of that failure of the subcontractor to pay the specified prevailing rate of wages to those workers or unless the prime Contractor fails to comply with all of the following requirements:

- A. The Contract executed between the Contractor and the subcontractor for the performance of work on the public works project shall include a copy of the requirements in Sections 1771, 1775, 1776, 1777.5, 1813 and 1815 of the Labor Code.
- B. The Contractor shall monitor the payment of the specified general prevailing rate of per diem wages by the subcontractor to the employees, by periodic review of the certified payroll records of the subcontractor.
- C. Upon becoming aware of the subcontractor's failure to pay the specified prevailing rate of wages to the subcontractor's workers, the Contractor shall diligently take corrective action to halt or rectify the failure, including, but not limited to, retaining sufficient funds due the subcontractor for work performed on the public works project.
- D. Prior to making final payment to the subcontractor for work performed on the public works project, the Contractor shall obtain an affidavit signed under penalty of perjury from the subcontractor that the subcontractor has paid the specified general prevailing rate of per diem wages to the subcontractor's employees on the public works project and any amounts due pursuant to Section 1813 of the Labor Code.

Pursuant to Section 1775 of the Labor Code, the Division of Labor Standards Enforcement shall notify the Contractor on a public works project within 15 days of the receipt by the Division of Labor Standards Enforcement of a complaint of the failure of a subcontractor on that public works project to pay workers the general prevailing rate of per diem wages. If the Division of Labor Standards Enforcement determines that employees of a subcontractor were not paid the general prevailing rate of per diem wages and if the City of Vallejo did not retain sufficient money under the Contract to pay those



employees the balance of wages owed under the general prevailing rate of per diem wages, the Contractor shall withhold an amount of moneys due the subcontractor sufficient to pay those employees the general prevailing rate of per diem wages if requested by the Division of Labor Standards Enforcement. The Contractor shall pay any money retained from and owed to a subcontractor upon receipt of notification by the Division of Labor Standards Enforcement that the wage complaint has been resolved. If notice of the resolution of the wage complaint has not been received by the Contractor within 180 days of the filing of a valid notice of completion or acceptance of the public works project, whichever occurs later, the Contractor shall pay all moneys retained from the subcontractor to the City of Vallejo. These moneys shall be retained by the City of Vallejo pending the final decision of an enforcement action.

Pursuant to the requirements in Section 1773 of the Labor Code, the City of Vallejo has obtained the general prevailing rate of wages (which rate includes employer payments for health and welfare, pension, vacation, travel time and subsistence pay as provided for in Section 1773.8 of the Labor Code, apprenticeship or other training programs authorized by Section 3093 of the Labor Code, and similar purposes) applicable to the work to be done, for straight time, overtime, Saturday, Sunday and holiday work. The holiday wage rate listed shall be applicable to all holidays recognized in the collective bargaining agreement of the particular craft, classification or type of workmen concerned.

General prevailing wage rates are also available from the California State Department of Industrial Relations' Internet Web Site at:

<http://www.dir.ca.gov/OPRL/dprevagedetermination.htm>

The wage rates determined by the Director of Industrial Relations for the project refer to expiration dates. Prevailing wage determinations with a single asterisk after the expiration date are in effect on the date of advertisement for bids and are good for the life of the Contract. Prevailing wage determinations with double asterisks after the expiration date indicate that the wage rate to be paid for work performed after this date has been determined. If work is to extend past this date, the new rate shall be paid and incorporated in the Contract. The Contractor shall contact the Department of Industrial Relations as indicated in the wage rate determinations to obtain predetermined wage changes.

Pursuant to Section 1773.2 of the Labor Code, general prevailing wage rates shall be posted by the Contractor at a prominent place at the site of the work.

Changes in general prevailing wage determinations which conform to Labor Code Section 1773.6 and Title 8 California Code of Regulations Section 16204 shall apply to the project when issued by the Director of Industrial Relations at least 10 days prior to the date of the Notice to Contractors for the project.

The City of Vallejo will not recognize any claim for additional compensation because of the payment by the Contractor of any wage rate in excess of the prevailing wage rate set forth in the Contract. The possibility of wage increases is one of the elements to be considered by the Contractor in determining the bid, and will not under any circumstances be considered as the basis of a claim against the City of Vallejo on the Contract by

Contractor.

#### 7-1.01A(2)(A) TRAVEL AND SUBSISTENCE PAYMENTS

Attention is directed to the requirements in Section 1773.8 of the Labor Code. The Contractor shall make travel and subsistence payments to each workman, needed to execute the work, in conformance with the requirements in Labor Code Section 1773.8.

Full compensation for conforming to the requirement of this section shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed, therefore.

#### 7-1.01A(3) PAYROLL RECORDS

Attention is directed to the requirements in Labor Code Section 1776, a portion of which is quoted below. Regulations implementing Labor Code Section 1776 are located in Sections 16016 through 16019 and Sections 16207.10 through 16207.19 of Title 8, California Code of Regulations.

- A. Each Contractor and subcontractor shall keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by him or her in connection with the public work. Each payroll record shall contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following:
  - 1. The information contained in the payroll record is true and correct.
  - 2. The employer has complied with the requirements of Sections 1771, 1811, and 1815 for any work performed by his or her employees on the public works project.
  
- B. The payroll records enumerated under subdivision (a) shall be certified and shall be available for inspection at all reasonable hours at the principal office of the Contractor on the following basis:
  - 1. A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or his or her authorized representative on request.
  - 2. A certified copy of all payroll records enumerated in subdivision (a) shall be made available for inspection or furnished upon request to a representative of the body awarding the Contract, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the Department of Industrial Relations.

3. A certified copy of all payroll records enumerated in subdivision (a) shall be made available upon request by the public for inspection or for copies thereof. However, a request by the public shall be made through either the body awarding the Contract, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to paragraph (2), the requesting party shall, prior to being provided the records, reimburse the costs of preparation by the Contractor, subcontractors, and the entity through which the request was made. The public shall not be given access to the records at the principal office of the Contractor.
- C. The certified payroll records shall be on forms provided by the Division of Labor Standards Enforcement or shall contain the same information as the forms provided by the division.
  - D. A Contractor or subcontractor shall file a certified copy of the records enumerated in subdivision (a) with the entity that requested the records within 10 days after receipt of a written request.
  - E. Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the awarding body, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement shall be marked or obliterated in a manner so as to prevent disclosure of an individual's name, address and social security number. The name and address of the Contractor awarded the Contract or the subcontractor performing the Contract shall not be marked or obliterated.
  - F. The Contractor shall inform the body awarding the Contract of the location of the records enumerated under subdivision (a), including the street address, city and county, and shall, within five working days, provide a notice of a change of location and address.
  - G. The Contractor or subcontractor shall have 10 days in which to comply subsequent to receipt of a written notice requesting the records enumerated in subdivision (a). In the event that the Contractor or subcontractor fails to comply within the 10-day period, he or she shall, as a penalty to the state or political subdivision on whose behalf the Contract is made or awarded, forfeit twenty-five dollars (\$25) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due. A Contractor is not subject to a penalty assessment pursuant to this section due to the failure of a subcontractor to comply with this section."

The penalties specified in subdivision (g) of Labor Code Section 1776 for noncompliance with the requirements in Section 1776 may be deducted from any moneys due or which may become due to the Contractor.

All contractors and subcontractors must furnish electronic certified payroll records directly to the Labor Commissioner (aka Division of Labor Standards Enforcement). Payrolls shall contain the full name, address and social security number of each employee, the employee's correct classification, rate of pay, daily and weekly number of hours worked, itemized deductions made and actual wages paid. They shall also indicate apprentices and ratio of apprentices to journeymen. The employee's address and social security number need only appear on the first payroll on which that name appears. The payroll shall be accompanied by a "Statement of Compliance" signed by the employer or the employer's agent indicating that the payrolls are correct and complete and that the wage rates contained therein are not less than those required by the Contract. The "Statement of Compliance" shall be on forms furnished by the City of Vallejo or on any form with identical wording. The Contractor shall be responsible for the submission of copies of payrolls of all subcontractors.

If by the 15th of the month, the Contractor has not submitted satisfactory payrolls for all work performed during the monthly period ending on or before the 1st of that month, the City of Vallejo may retain an amount equal to 10 percent of the estimated value of the work performed (exclusive of Mobilization) during the month from the next monthly estimate, except that this retention shall not exceed \$10,000 nor be less than \$1,000. Retentions for failure to submit satisfactory payrolls shall be additional to all other retentions provided for in the Contract. The retention for failure to submit payrolls for any monthly period will be released for payment on the monthly estimate for partial payments next following the date that all the satisfactory payrolls for which the retention was made are submitted.

The Contractor and each subcontractor shall preserve their payroll records for a period of 3 years from the date of completion of the Contract.

#### 7-1.01A(4) LABOR NONDISCRIMINATION

Attention is directed to Section 1735 of the Labor Code, which reads as follows:

"No discrimination shall be made in the employment of persons upon public works because of the race, religious creed, color, national origin, ancestry, physical handicap, medical condition, marital status, or sex of such persons, except as provided in Section 12940 of the Government Code, and every Contractor for public works violating this section is subject to all the penalties imposed for a violation of this chapter."

Attention is directed to the following "Nondiscrimination Clause" that is required by Chapter 5 of Division 4 of Title 2, California Code of Regulations.

#### NONDISCRIMINATION CLAUSE

"During the performance of this Contract, Contractor and its SUBCONTRACTORS shall not unlawfully discriminate against any employee or applicant for employment because of race, religion, color, national origin, ancestry, physical handicap, medical condition, marital status, age (over 40) or sex. Contractors and

SUBCONTRACTORS shall ensure that the evaluation and treatment of their employees and applicants for employment are free of such discrimination. Contractors and SUBCONTRACTORS shall comply with the provisions of the Fair Employment and Housing Act (Gov. Code, Section 12990 et seq.) and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285.0 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code, Section 12990, set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations are incorporated into this Contract by reference and made a part hereof as if set forth in full. Contractor and its SUBCONTRACTORS shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.”

The Contractor shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the Contract.

#### 7-1.01A(5) APPRENTICES

Attention is directed to Sections 1777.5, 1777.6 and 1777.7 of the California Labor Code and Title 8, California Code of Regulations Section 200 et seq. To ensure compliance and complete understanding of the law regarding apprentices, and specifically the required ratio thereunder, each Contractor or subcontractor should, where some question exists, contact the Division of Apprenticeship Standards, 455 Golden Gate Avenue, San Francisco, CA 94102, or one of its branch offices prior to commencement of work on the public works Contract. Responsibility for compliance with this section lies with the Contractor.

It is City of Vallejo policy to encourage the employment and training of apprentices on public works Contracts as may be permitted under local apprenticeship standards.

- A. Only registered apprentices within a written agreement in an approved apprentice-training program providing no less than 2,000 hours of continuous employment and education are eligible for employment on public works (in compliance with Labor Section 3077).
- B. A contractor is no longer required to submit Form DAS-7, but must submit award information to the local applicable joint apprenticeship committee. The award information must include:
  - an estimate of the journeyman hours;
  - the number of apprentices to be employed; and
  - the approximate dates of apprentice employment.
- C. The minimum statutory 1:5 hourly ratio of work stipulates that no less than one hour of apprentice work for every five hours of journeyman labor on any day of

work. (Any journeyman work performed beyond 8 hours per day or 40 hours per week shall not be used to calculate the hourly ratio).

This section shall not apply to specialty contractors or general contractors whose contracts involve less than Thirty Thousand Dollars (\$30,000.00) or 20 working days.

The Division of Apprenticeship Standards may grant a certificate exempting the contractor from the minimum 1:5 hourly ratios under any one of the following:

Unemployment exceeds an average of 15% in the area for the previous 3-month period;

The number of apprentices in training in such area exceeds a ratio of 1:5;

The apprentice able craft or trade is replacing at least one-thirtieth of its journeymen annually through apprenticeship training, either locally or statewide;

The specific task would jeopardize the apprentice's life or public safety or no training can be provided to an apprentice by a journeyman for the specific task.

- D. Apprentices employed on public works projects can only be assigned to perform work of the craft or trade to which the apprentice is registered.
- E. All contractors with employees in any apprentice able occupation, regardless of the actual employment of journeymen or apprentices for the awarded public work, must either contribute to the local training trust fund or to the California Apprenticeship Council, P.O. Box 603, San Francisco, CA 94101 (as set forth in Section 227).
- F. All violations of Section 1777.5 shall pay a civil penalty of Fifty Dollars (\$50.00) for each calendar day of noncompliance.

All willful violations of Section 1777.5 shall pay the \$50.00 fine for each calendar day of noncompliance and shall be denied the right to bid on, or to receive, any public works contract for a period of up to one year for the first violation and up to three years for any additional violations.

Compliance disputes arising under Section 177.5 shall be adjudicated under 8 California Code of Regulations, Article 1.

- G. Within five (5) days of a public works contract award, the awarding agency must send a copy of the award to the Division of Apprenticeship Standards under Section 1773.3.

Within five (5) days of finding any discrepancy regarding the hourly ratio of apprentices to journeymen, the awarding agency shall notify the Division of Apprenticeship Standards.

H. The Contractor shall be responsible for compliance for all apprentice able occupations within these sections.

#### 7-1.01A(6) WORKERS' COMPENSATION

Pursuant to the requirements in Section 1860 of the Labor Code, the Contractor will be required to secure the payment of workers' compensation to the Contractor's employees in conformance with the requirements in Section 3700 of the Labor Code.

Prior to the commencement of work, the Contractor shall sign and file with the Engineer a certification in the following form:

"I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' 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."

This certification is incorporated in the Contract by reference, and signature and return of the Contract as provided in Section 3-1.03, "Execution of Contract," shall constitute signing and filing of the certificate.

#### 7-1.01A(7) SUITS TO RECOVER PENALTIES AND FORFEITURES

Attention is directed to Sections 1730 to 1733, inclusive, of the Labor Code concerning suits to recover amounts withheld from payment for failure to comply with requirements of the Labor Code or Contract provisions based on those laws.

Those sections provide that a suit on the Contract for alleged breach thereof in not making the payment is the exclusive remedy of the Contractor or the Contractor's assignees with reference to amounts withheld for those penalties or forfeitures; and that the suit must be commenced and actual notice thereof received by the awarding authority prior to 90 days after completion of the Contract and the formal acceptance of the job.

#### 7-1.01B FAIR LABOR STANDARDS ACT

The attention of Bidders is invited to the fact that the City of Vallejo has been advised by the Wage and Hour Division, U.S. Department of Labor, that Contractors engaged in highway construction work are required to meet the provisions of the Fair Labor Standards Act of 1938 and as amended (52 Stat. 1060).

#### 7-1.01C CONTRACTOR'S LICENSING LAWS

Attention is directed to the provisions of Chapter 9 of Division 3 of the Business and Professions Code concerning the licensing of Contractors. Contractor shall be properly licensed at all times during the performance of the work and performance of the Contract.

All Bidders and Contractors shall be licensed in accordance with the laws of this State and any bidder or Contractor not so licensed is subject to the penalties imposed by those laws.

Attention is also directed to the requirements in Public Contract Code Section 10164. In all projects where Federal funds are involved, the Contractor shall be properly licensed at the time the Contract is awarded.

#### 7-1.01D VEHICLE CODE

Pursuant to the authority contained in Vehicle Code Section 591, the City of Vallejo has determined that within those areas that are within the limits of the project and are open to public traffic, the Contractor shall comply with all the requirements set forth in Divisions 11, 12, 13, 14 and 15 of the Vehicle Code.

Attention is directed to the statement in Vehicle Code Section 591 that this section shall not relieve the Contractor or any person from the duty of exercising due care. The Contractor shall take all necessary precautions for safe operation of the Contractor's equipment and the protection of the public from injury and damage from the Contractor's equipment.

#### 7-1.01E TRENCH SAFETY

Attention is directed to the requirements in Section 6705 of the Labor Code concerning trench excavation safety plans.

The Contractor is warned that when the work involves existing sewers and appurtenances that have been exposed to sewage and industrial wastes, these facilities shall be considered contaminated with disease-causing organisms. Personnel in contact with contaminated facilities, debris, waste water, or similar items shall be advised by the Contractor of the necessary precautions that must be taken to avoid becoming diseased. It is the Contractor's responsibility to urge his/her personnel to observe a strict regimen of proper hygienic precautions, including any inoculations recommended by the local public health officer.

Because of the potential danger of solvents, gasoline, and other hazardous material in the existing sewers and storm drain pipes, these areas shall be considered hazardous. The Contractor shall be aware of these dangers and shall comply with Article 108, "Confined Spaces," of the General Industrial Safety Orders contained in Title 8 of the California Administrative Code.

In the event that this Contract requires the excavation of any trench or trenches in excess of five feet in depth, Contractor shall prepare a detailed design plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trenches. Said detailed design plan and subsequent excavating operations shall fully comply with all local, state and federal regulations including, but not limited to, the Construction Safety Orders, Section 1539, Permits and Section 1540 et seq., Excavation.



## 7-1.01F AIR POLLUTION CONTROL

The Contractor shall comply with all air pollution control rules, regulations, ordinances and statutes which apply to any work performed pursuant to the Contract, including any air pollution control rules, regulations, ordinances and statutes, specified in Section 11017 of the Government Code.

Unless otherwise provided in the special provisions, material to be disposed of shall not be burned, either inside or outside the highway right of way.

## 7-1.01G WATER POLLUTION CONTROL

### 7-1.01G(1) GENERAL

The intent of these requirements is to enforce federal, state, and other local agency regulation prohibiting storm water pollution from construction sites. The storm drain system discharges directly to creeks and the San Francisco Bay without treatment. Therefore, pollutant discharge into the storm drain system is strictly prohibited. Here pollutant discharge means any substance, material, or waste, and discharges NOT permitted under the National Pollutant Discharge Elimination System (NPDES) regulated by the State of California Regional Water Quality Control Board (RWQCB) or the United States Environmental Protection Agency (EPA) other than uncontaminated stormwater.

The Contractor shall conform to all applicable local, state and Federal regulations and laws pertaining to water pollution control. As applicable, the Contractor shall obtain Water Pollution Control Permits and file all documents including, but not limited to, the State of California Construction General Permit, Stormwater Pollution Prevention Plan. The Contractor shall conduct and schedule operations and follow and implement Best Management Practices (BMPs) in such a manner as to prevent water pollution. The Contractor shall also conform to the following requirements:

- 1) Sediments shall not be discharged to a storm drain system or receiving waters. In this subsection, the term "storm drain system" shall include storm water conduits, storm drain inlets and other storm drain structures, street gutters and paved surfaces. In this subsection "receiving waters" shall include channels, watercourses, creeks, lakes, the Mare Island Strait, the Carquinez Strait, and the San Francisco Bay.
- 2) Sediments generated on the Work site shall be contained within the Work site using appropriate BMPs.
- 3) No construction-related materials, waste, spill or residue shall be discharged from the Work site to streets, drainage facilities, receiving waters or adjacent property by wind or runoff.
- 4) Non-storm water runoff from equipment, vehicle washing or any other activity shall

be contained within the Work site using appropriate BMPs.

- 5) Erosion shall be prevented. Erosion-susceptible slopes shall be covered, planted or otherwise protected in a way that prevents discharge from the Work site.

In this subsection, the term “storm drain system” shall include water conduits, storm drain inlets and other storm drain structures, street gutters and paved surfaces, channels, watercourses, creek, lakes, the estuary, and the San Francisco Bay.

The Engineer will notify the Contractor of the acceptance or rejection of any submitted or revised water pollution control program.

The City of Vallejo will not be liable to the Contractor for failure to accept all or any portion of an originally submitted or revised water pollution control program, nor for any delays to the work due to the Contractor's failure to submit an acceptable water pollution control program.

Nothing in the terms of the Contract Documents nor in the provisions in this Section 7 1.01G Water Pollution Control shall relieve the Contractor of the responsibility for compliance with Sections 5650 and 12015 of the Fish and Game Code, or other applicable statutes relating to prevention or abatement of water pollution.

#### 7-1.01G(2) BEST MANAGEMENT PRACTICES (BMP)

For the purpose of eliminating stormwater pollution, the Contractor shall implement effective control measures known as Best Management Practices (BMPs). BMPs include schedules of activities, prohibition of practices, general good housekeeping practices, operational practices, pollution prevention practices, maintenance procedures, and other management procedures to prevent pollutant discharge directly or indirectly into the storm drain system. BMPs also include the construction of some facilities that may be required to prevent, control, and abate stormwater pollution.

The Contractor shall implement and maintain such BMPs as are relevant to the work, and as are specifically required by the project plans or Specifications. The Contractor shall be responsible throughout the Contract duration for installing, constructing, inspecting, maintaining, removing and disposing of BMPs for wind erosion control, tracking control, erosion and sediment control, non-storm water control, and waste management and materials pollution control. Unless otherwise directed by the Engineer, the Contractor shall be responsible for BMP implementation and maintenance throughout any temporary suspension of the Work. Guidance for appropriate implementation of BMPs can be found in the 7-1.01G(5) Reference Publications, below.

#### 7-1.01G(3) STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

When so specified in the Specifications, or if so required by a jurisdictional regulatory agency, the Contractor shall prepare and submit a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall conform to the requirements specified in the Specifications and those of the jurisdictional regulatory agency. The Notice of Intent will be filed by the

City.

#### 7-1.01G(4) DEWATERING

Dewatering shall be performed by the Contractor when specifically required by the project plans or Specifications, and as necessary for construction of the Work. Dewatering shall be performed in conformance with all applicable local, state and Federal laws and permits issued by jurisdictional regulatory agencies. Permits necessary for treatment and disposal of accumulated water shall be obtained by the Contractor or the Agency as specified in the Special Provisions. Accumulated water shall be treated prior to disposal if so specified in the Specifications or required by a permit. The contractor shall submit a working drawing and related supporting information detailing its proposed plan and methodology and treatment and disposal of accumulated water. To the maximum extent practical, the Contractor shall reuse non-toxic, de-silted water for other onsite needs, such as dust control and irrigation.

The plan shall identify the location, type and size of dewatering devices and related equipment, the size and type of materials composing the collection system, the size and type of equipment to be used to retain and, if required, treat accumulated water, and the proposed disposal locations. If the proposed disposal location is a sanitary sewer, the Contractor shall submit to the Engineer written evidence of permission from the owner. If the proposed disposal location is a storm drain system or receiving body of water, the Contractor shall submit written evidence of permission from the owner of the storm drain system and, if not obtained by the City, original signed permits from jurisdictional regulatory agencies or written evidence that such permits are not required.

#### 7-1.01G(5) REFERENCE PUBLICATIONS

Reference publications are as follows:

1. California State Water Resources Control Board (SWRCB) Construction General Permit Order 2009-009-DWQ adopted on September 2, 2009. Available at: the following website:  
[http://www.swrcb.ca.gov/board\\_decisions/adopted\\_orders/water\\_quality/2012/wq\\_o2012\\_0006\\_dwq.pdf](http://www.swrcb.ca.gov/board_decisions/adopted_orders/water_quality/2012/wq_o2012_0006_dwq.pdf)
2. California Stormwater Quality Association (CASQA) Stormwater Best Management Practice Handbook. Available at: the following website:  
[www.casqa.org/resources/bmp-handbooks/construction](http://www.casqa.org/resources/bmp-handbooks/construction)
3. Erosion and Sediment Control Field Manual, San Francisco Regional Water Quality Control Board (SFRWQCB) Available from Friends of the San Francisco Estuary, 1515 Clay Street, Suite 1400, Oakland, CA 94612 (510) 622-2419 or (510) 622-2337. Available at: the following website:  
[www.abag.ca.gov/abag/overview/pub/erosion.html](http://www.abag.ca.gov/abag/overview/pub/erosion.html)
4. Manual of Standards for Erosion and Sediment Control Measures. Association of

Bay Area Governments (ABAG.) Available from ABAG, 101 8th Street, Oakland, CA 94607, (510) 464-7900. Available at: the following website:  
[www.abag.ca.gov/abag/overview/pub/erosion.html](http://www.abag.ca.gov/abag/overview/pub/erosion.html)

5. CalTrans Stormwater Quality Handbooks. Available at: the following website:  
[www.dot.ca.gov/hq/construc/stormwater/CSBMPPM\\_303\\_Final.pdf](http://www.dot.ca.gov/hq/construc/stormwater/CSBMPPM_303_Final.pdf)

#### 7-1.01G(6) MATERIAL STORAGE

Storage and exposure of raw materials, by-products, finished products, and containers shall be controlled as described below:

1. All construction materials shall be stored at least ten feet away from inlets, catch basins, and curb returns. The Contractor shall not allow any material to enter the storm drain system. Measures shall be taken to maintain a neat and protected pile. At the end of each working day, the Contractor shall collect and dispose of all scrap, debris, and waste material excluding materials set aside for recycling and salvage. Materials set aside for recycling and salvage shall be delivered to the recycling station within five days.
2. Materials that can contaminate rainwater or be transported by storm water or other runoff to the storm drain system require special storage. During wet weather or when rain is forecast, the Contractor shall store such materials inside a building or cover them with a tarp or other waterproof material secured with weighted tires or sandbags to prevent contact with rain.
3. The Contractor is reminded that storage and disposal of all hazardous materials such as paints, thinners, solvents, and fuels; and all hazardous wastes such as waste oil, must meet all federal, state and local standards and requirements.

#### 7-1.01G(7) PAVEMENT SAW CUTTING OPERATIONS

The Contractor shall prevent any saw cutting debris from entering the storm drain system. The Contractor shall preferably use dry cutting techniques and sweep up residue. If wet methods are used, the Contractor shall vacuum slurry as cutting proceeds or collect all wastewater by constructing a sandbag sediment barrier. The bermed area shall be of adequate size to collect all wastewater and solids. The Contractor shall allow collected water to evaporate, as approved by the Engineer, if the wastewater volume is minimal and if maintaining the ponding area does not interfere with public use of the street area, create a safety hazard, or does not create standing water that remains longer than 72 hours. If the Engineer approves, the Contractor may direct or pump saw cutting wastewater to a dirt area for infiltration. This dirt area shall be adequate to contain all the wastewater. After wastewater has infiltrated, all remaining saw cutting residue must be removed and disposed of properly.

With the approval of Vallejo Sanitation and Flood Control District (VSFCD) and the Engineer, de-silted water may be pumped to the sanitary sewer to assist in the evaporation or infiltration process. Remaining silt and debris from the ponding or bermed

area shall be removed or vacuumed and disposed of properly. If a suitable dirt area is not available or discharge to the sanitary sewer is not feasible, with the Engineer's approval the Contractor shall filter the saw-cutting wastewater through filtering materials and methods meeting ABAG Standards for Erosion and Sedimentation Control Measures (latest edition) before discharging this wastewater to the storm drain.

#### 7-1.01G(8) PAVEMENT OPERATIONS

The Contractor shall prevent the discharge of pollutants from paving operations by using measures to prevent run-on and runoff pollution, properly disposing of wastes, and by implementing the following Best Management Practices:

- a. No paving during wet weather.
- b. Store materials as required by 7-1.01G(6) Material Storage,
- c. Cover inlets and manholes when applying asphalt, seal coat, tack coat, slurry seal, fog seal, etc.
- d. Place drip pans or absorbent materials under paving equipment when not in use. During wet weather store contaminated paving equipment indoors or cover with tarp or other waterproof covering.
- e. Sweep work site daily to prevent sand, gravel or excess asphalt from entering, or being transported by rain, into the storm drain system.
- f. Keep ample supplies of drip pans or absorbent materials on-site.
- g. If paving involves Portland cement concrete, refer to 7-1.01G(6) Material Storage.

#### 7-1.01G(9) CONCRETE OPERATIONS

The Contractor shall prevent pollutant discharge from concrete operations by using measures to prevent run-on and runoff pollution, by properly disposing of wastes, and by implementing the following BMPs:

- a. Store all materials in waterproof containers or under cover away from drain inlets or drainage areas.
- b. Avoid mixing excess amounts of Portland cement materials.
- c. Do not wash out concrete trucks into storm drains, open ditches, streets, streams etc. Whenever possible, perform washout of concrete trucks off site where discharge is controlled and not permitted to discharge to the storm drain system.

For on-site washout:

- i. Locate washout area at least 50 feet from storm drains, open ditches or other water bodies, preferably in a dirt area. Prevent runoff from this area by constructing a temporary pit or bermed area large enough to store the liquid and solid waste.
  - ii. Wash out concrete wastes into the temporary pit where the concrete can set, be broken up and then disposed of properly. If the water volume greater than what will allow concrete to set, allow the wash water to infiltrate and/or evaporate, if possible. Otherwise, allow wash water to settle, then filter and pump it to the sanitary sewer with approval from VSFC and the Engineer. Remove or vacuum the remaining silt and debris from the ponding or bermed area and dispose of it properly.
- d. Dispose of wastewater from exposed aggregate washing to a dirt area adequate to contain all the wastewater. Once the wastewater has infiltrated, remove any remaining residue. If a suitable dirt area is not available, filter the wash water through straw bales or other filtering materials meeting ABAG Standards for Erosion and Sediment Control Measures before discharging the wash water to the sanitary sewer with approval from VSFC and the Engineer.
  - e. Collect and return sweepings from exposed aggregate concrete to a stockpile or dispose of the waste in a trash container.

#### 7-1.01G(10) GRADING AND EXCAVATION OPERATIONS

The Contractor shall implement sedimentation and erosion control measures to prevent sediments or excavated material from entering the storm drain system.

The erosion and sedimentation control materials and methods shall be in accordance with ABAG Standards for Erosion and Sediment Control Measures and/or the procedures and methods described in the SFRWQCB Erosion and Sediment Control Field Manual.

At a minimum, the Contractor shall install filter materials (such as sandbags, filter fabric, etc.) at storm drain inlet(s) located in and downstream of the project site. These materials must be in place between October 15 and April 15 and also when rain is forecast within 24 hours. The Contractor shall install filter materials or seal all surface inlet openings during the dry season or if there is potential for sediment or excavated material to be discharged to the storm drain system during the construction operation (e.g. sediments and debris tracked by construction vehicles, wind-blown or transported by other runoff). The storm drain inlets shall be sealed such that they can be opened in an emergency and unblocked at the end of each working day, so that no property is damaged as a result of accidents or overflows.

Sedimentation and erosion control/filter materials shall be placed in a manner to restrain any debris or sediment from flowing into the storm drain system. Said materials or control devices shall also be maintained and/or replaced as necessary to ensure effective sediment control and to prevent flooding.

#### 7-1.01G(11) SPILL PREVENTION AND CONTROL

The Contractor shall take all precautions to prevent accidental spills during construction. However, in the event of a spill, the Contractor shall immediately contain any leaks/spills to prevent them from entering the storm drain system. The Contractor shall properly clean up and dispose of spilled wastes and resulting clean-up materials. If the spilled waste is hazardous, the Contractor shall comply with all federal, state and local hazardous waste requirements.

- a. The Contractor shall not wash any spilled material into the streets, gutters, storm drains, or creeks.
- b. The Contractor shall report any hazardous materials spill immediately to the Vallejo Fire Department, the Solano County Department of Resource Management Environmental Services Division Hazardous Materials Section and other state and local agencies as required by state and local regulations.

#### 7-1.01G(12) VEHICLE/EQUIPMENT CLEANING

The use of soaps, solvents, de-greasers, steam cleaning equipment or equivalent methods for vehicle or equipment cleaning on-site or in the street is not permitted. Vehicle or equipment may be cleaned only with water in a designated, bermed area of adequate size. Rinse water may not runoff site or into the storm drain system. The rinse-water shall be permitted to infiltrate in dirt area or shall be discharged to the sanitary sewer with the approval of VSFCDD and the Engineer.

The Contractor shall dispose of wash water from the cleaning of water-based paint equipment and tools to the sanitary sewer.

When using oil-based paint the Contractor shall, to the maximum extent practicable, filter the paint thinner and solvents for reuse. Any waste thinner, solvent, and sludge from the cleaning of equipment and tools shall be disposed as hazardous waste.

#### 7-1.01G(13) CONTRACTOR TRAINING AND AWARENESS

The Contractor shall train all employees on the water pollution prevention requirements contained in these specifications. The Contractor shall inform all subcontractors of the water pollution prevention contract requirements and include appropriate subcontract provisions to ensure that these requirements are met.

The Contractor shall mark all new catch basins constructed as part of the project with storm drain markers with the logo "No Dumping: Drains to the Bay". Storm drain markers shall be approved by the City Engineer.

#### 7-1.01G(14) GOOD HOUSEKEEPING PRACTICES

The Contractor shall implement the following applicable good housekeeping practices.

- a. Store all materials that have the potential to be transported to the storm drain system by storm runoff or by a spill under cover in a contained area or in sealed waterproof containers.
- b. Use ground tarps to collect fallen debris or splatters that could contribute to storm water pollution.
- c. Secure opened bags of cement, and other light materials or powders that can be transported by wind.
- d. Pick up litter, construction debris and other wastes daily from outside areas including the sidewalk area, gutter, street pavement and storm drains impacted by the project. Store all wastes in covered containers or dispose of immediately. Arrange for appropriate collection of those materials separated for recycling.
- e. Dispose of wash water to the sanitary sewer with the approval of VSFCDD and the Engineer or recycle wash water. Refer to 7-1.01G(9) Concrete Operations.
- f. Inspect vehicles and equipment arriving on-site for leaking fluids and promptly repair leaking vehicles and equipment. Use drip pans to catch leaks until repairs are made.
- g. Avoid spills by handling materials carefully. Keep a stockpile of spill materials, such as rags or absorbents, readily accessible on-site. Clean up all spills immediately to prevent any material from being discharged to the storm drain system. Refer to 7-1.01G(11) Spill Prevention and Control.
- h. Train employees regularly on good housekeeping practices and BMPs. Assign specific employees responsibility for BMPs, good housekeeping practices, and actions to take in the event of a spill. Refer to 7-1.01G(13) Contractor Training and Awareness.
- i. Maintain and replace all sediment and water pollution control devices as necessary to ensure that said controls are working effectively (e.g. inspect all sediment ponds or sandbag sedimentation/filtering systems after each rain. Remove accumulated sediment and debris and replace or repair damaged sandbags immediately.)

#### 7-1.01G(15) PAYMENT

Unless otherwise specified in the Specifications, payment for implementation and maintenance of BMPs, implementing SWPPP measures and other work of this section (including dewatering) shall be deemed included in the price paid for associated contract bid items, and no additional payment shall be made therefor.

#### 7-1.01G(16) ENFORCEMENT

Various sections of the Vallejo Municipal Code 12.41 enforce section 7.101G. City



enforcement may include, but is not limited to: citations, abatement orders, bills for City cleanup costs and administration, civil suits, and criminal charges. City enforcement actions do not void or suspend any enforcement actions by other agencies. At a minimum, the Contractor shall implement the storm water Clean Water Program BMPs listed in 7-1.01G(1) General, or implement equally effective alternatives approved by the Engineer on all projects within the City of Vallejo.

#### 7-1.01H USE OF PESTICIDES

The Contractor shall comply with all rules and regulations of the Department of Food and Agriculture, the Department of Health, the Department of Industrial Relations, City of Vallejo Standard Specifications and all other agencies which govern the use of pesticides required in the performance of the work on the Contract.

Pesticides shall include but shall not be limited to herbicides, insecticides, fungicides, rodenticides, germicides, nematocides, bactericides, inhibitors, fumigants, defoliant, desiccants, soil sterilants and repellents.

Any substance or mixture of substances intended for preventing, repelling, mitigating, or destroying weeds, insects, diseases, rodents, or nematodes and any substance or mixture of substances intended for use as a plant regulator, defoliant or desiccant shall be considered a pesticide.

#### 7-1.01I SOUND CONTROL REQUIREMENTS

The Contractor shall comply with all local sound control and noise level rules, regulations and ordinances which apply to any work performed pursuant to the Contract.

Each internal combustion engine, used for any purpose on the job or related to the job, shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without the muffler.

The noise level from the Contractor's operations, between the hours of 9:00 p.m. and 7:00 a.m. shall not exceed 50 dBA and between the hours of 7:00 a.m. and 9:00 p.m. shall not exceed 80 dBA at a distance of 50 feet.

Said noise level requirement shall apply to all equipment on the job or related to the job, including but not limited to trucks, transit mixers or transient equipment that may or may not be owned by the Contractor. The use of loud sound signals shall be avoided in favor of light warnings except those required by safety laws for the protection of personnel.

Full compensation for conforming to the requirements of this section shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefore.

#### 7-1.01J ASSIGNMENT OF ANTITRUST ACTIONS

The Contractor's attention is directed to the following requirements in Public Contract Code 7103.5 and Government Code Sections 4553 and 4554, which shall be applicable to the Contractor and the Contractor's subcontractors:

"In entering into a public works Contract or a subcontract to supply goods, services, or materials pursuant to a public works Contract, the Contractor or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 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 public works Contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the Contractor, without further acknowledgment by the parties.

If an awarding body or public purchasing body receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under this chapter, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the public body any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the public body as part of the bid price, less the expenses incurred in obtaining that portion of the recovery.

Upon demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under this part if the assignor has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action."

#### 7-1.02 LOAD LIMITATIONS

Unless expressly permitted in the special provisions, construction equipment or vehicles of any kind which, laden or unladen, exceed the maximum weight limitations set forth in Division 15 of the Vehicle Code, shall not be operated over completed or existing treated bases, surfacing, pavement or structures in any areas within the limits of the project, whether or not the area is subject to weight limitations under Section 7-1.01D, "Vehicle Code," except as hereinafter provided in this Section 7-1.02.

After application of the curing seal, no traffic or Contractor's equipment will be permitted on cement treated base or lean concrete base for a period of 72 hours. After 72 hours, traffic and equipment operated on the base shall be limited to that used in paving operations and placing additional layers of cement treated base. No traffic or Contractor's equipment will be permitted on treated permeable base except for that equipment required to place the permeable base and the subsequent layer of pavement. Trucks used to haul treated base, Portland cement concrete, or asphalt concrete shall enter onto the base to dump at the nearest practical entry point ahead of spreading equipment. Empty haul trucks shall exit from the base at the nearest practical exit point. Entry and exit points shall not be more than 300 m {1,000 feet} ahead of spreading equipment except in locations where Specifications prohibit operation of trucks outside the area

occupied by the base or where steep slopes or other conditions preclude safe operation of hauling equipment. In those locations, entry and exit points shall be established at the nearest point ahead of spreading equipment permitted by Specifications and allowing safe operation of hauling equipment. Damage to curing seal or base shall be repaired promptly by the Contractor, at the Contractor's expense, as directed by the Engineer.

Within the limits of the project and subject to the control of the Engineer, and provided that the Contractor, at the Contractor's expense, shall provide such protective measures as are deemed necessary by the Engineer and shall repair any damage caused by the operations, the Contractor will be permitted to:

Make transverse crossings of those portions of an existing public road or street that are within the highway right of way, with construction equipment which exceeds the size or weight limitations set forth in Division 15 of the Vehicle Code.

Make transverse crossings of treated bases, surfacing or pavement which are under construction or which have been completed, with construction equipment which exceeds the size or weight limitations set forth in Division 15 of the Vehicle Code.

Cross bridge structures that are not open to public traffic and which are designed for HS20-44 Live Loading (culverts and pipes excluded), with construction equipment which exceeds the size or weight limitations set forth in Division 15 of the Vehicle Code, but not exceeding the load limitations hereinafter specified, provided that the Contractor furnishes to the Engineer the dimensions and maximum axle loadings of equipment proposed for use on bridge structures:

*The maximum loading on bridge structures due to pneumatic-tired truck and trailer combinations shall not exceed (1) 12,700 kg {28,000 pounds} for single axles, (2) 21,700 kg {48,000 pounds} for tandem axles, nor (3) 27,200 kg {60,000 pounds} total gross load for single vehicles or 50,000 kg {110,000 pounds} total gross load for truck and trailer or semi-trailer combinations.*

The loading on bridge structures due to 2 and 3 axle pneumatic-tired earthmovers shall not exceed that shown in the following table.

Allowable Construction Loading On Bridges For 2 and 3 Axle Earthmovers	
Spacing of Bridge Girders (center to center in meters {feet})	Maximum Axle Loading (in kilograms {pounds})
1.2 {4}	12,700 {28,000}
1.5 {5}	13,100 {29,000}
1.8 {6}	13,600 {30,000}
2.1 {7}	14,500 {32,000}
2.4 {8}	15,400 {34,000}
2.7 {9}	16,700 {37,000}
3.0 {10} and over	18,000 {40,000}

Minimum axle spacing: For 3-axle earthmovers Axles 1 to 2 = 2.4 m {8 feet} Axles 2 to 3 = 6.1 m {20 feet} For 2-axle earthmovers Axles 1 to 2 = 6.1 m {20 feet}
--

Move equipment within the limits of the project over completed or existing base, surfacing, pavement and structures, whether or not open to the public, in accordance with the limitations and conditions in the "Permit Policy" of the City of Vallejo of Transportation.

Within the limits of the project and subject to the condition that the Contractor shall repair, at the Contractor's expense, any damage caused thereby, the Contractor will be permitted to cross culverts and pipes with construction equipment which exceeds the size or weight limitations set forth in Division 15 of the Vehicle Code in accordance with the conditions set forth on the plans. If the conditions are not set forth on the plans, the provisions in the first paragraph in this Section 7-1.02 will apply.

Should the Contractor desire to increase the load carrying capacity of a structure or structures which are to be constructed as a part of the Contract, in order to facilitate the Contractor's own operations, the Contractor may request the Engineer to consider redesigning the structure or structures. Proposals by the Contractor to increase the load carrying capacity of structures above 59 000 kg {130,000 pounds} per single axle or pair of axles less than 2.4 m {8 feet} apart, or above 149 000 kg {330,000 pounds} total gross vehicle weight, will not be approved. The request shall include a description of the structure or structures involved and a detailed description of the overloads to be carried, the date the revised plans would be required, and a statement that the Contractor agrees to pay all costs involved in the strengthening of the structure or structures, including the cost of revised plans, and further that the Contractor agrees that no extension of time will be allowed by reason of any delay to the work which may be due to the alteration of the structure or structures. If the Engineer determines that strengthening the structure or structures will be permitted, the Engineer will inform the Contractor of the estimated cost of the alterations, including engineering, and the date that revised plans could be furnished. If the cost and date are satisfactory to the Contractor, the Engineer will prepare a change order providing for the agreed upon alterations.

Pursuant to the authority contained in Section 591 of the Vehicle Code, the Department has determined that, within such areas as are within the limits of the project and are open to public traffic, the Contractor shall comply with all of the requirements set forth in Divisions 11, 12, 13, 14, and 15 of the Vehicle Code. Attention is directed to the statements in Section 591 that this section shall not relieve him or any person from the duty of exercising due care. The Contractor shall take all necessary precautions for safe operation of his/her equipment and the protection of the public from injury and damage from such equipment.

#### 7-1.03 PAYMENT OF TAXES

The Contract prices paid for the work shall include full compensation for all taxes which

the Contractor is required to pay, whether imposed by Federal, State or local government, including, without being limited to, Federal excise tax. No tax exemption certificate or any document designed to exempt the Contractor from payment of any tax will be furnished to the Contractor by the City of Vallejo, as to any tax on labor, services, materials, transportation, or any other items furnished pursuant to the Contract.

#### 7-1.04 PERMITS AND LICENSES

The City will waive all required City of Vallejo permit fees for this project.

The Contractor and all subcontractors shall obtain and keep current for the duration of the project a City of Vallejo Business License.

The Contractor shall give all notices required by and comply with all laws, codes, ordinances and regulations. Before installing any work, the Contractor shall carefully examine the Contract Documents for compliance with all laws, codes, ordinances and regulations and shall immediately report any discrepancy to the Engineer.

Should the Contractor proceed with the construction and/or install any utility variance, notwithstanding the fact that such installation is in compliance with the Contract Documents, or should the Contractor install any work not in compliance with all laws, codes, ordinances and regulations, the Contractor shall remove such work without cost to the City of Vallejo.

The Contractor shall commit no trespass on any public or private property in any operation due to or connected with the improvements embraced in this contract.

The Environmental Quality Act (Public Resources Code, Sections 21000 to 21176, inclusive) may be applicable to permits, licenses and other authorizations which the Contractor must obtain from local agencies in connection with performing the work of the Contract. The Contractor shall comply with the provisions of those statutes in obtaining the permits, licenses and other authorizations and they shall be obtained in sufficient time to prevent delays to the work.

In the event that the City of Vallejo has obtained permits, licenses or other authorizations, applicable to the work, in conformance with the requirements in the Environmental Quality Act or any other authority, the Contractor shall comply with the provisions of those permits, licenses and other authorizations.

#### 7-1.05 PATENTS

The Contractor shall assume all costs arising from the use of patented materials, equipment, devices or processes used on or incorporated in the work, and agrees to indemnify and save harmless the City of Vallejo, the Director, the Engineer, and their duly authorized representatives, from all suits at law, or actions of every nature for, or on account of the use of any patented materials, equipment, devices or processes.

#### 7-1.06 SAFETY AND HEALTH PROVISIONS

The Contractor shall conform to all applicable occupational safety and health standards, rules, regulations and orders established by the State of California.

Working areas utilized by the Contractor to perform work during the hours of darkness, shall be lighted to conform to the minimum illumination intensities established by California Division of Occupational Safety and Health Construction Safety Orders.

All lighting fixtures shall be mounted and directed in a manner precluding glare to approaching traffic.

Full compensation for conforming to the provisions in this section shall be considered as included in the Contract prices paid for the various items of work involved and no separate payment will be made therefor.

#### 7-1.07 (BLANK)

#### 7-1.08 PUBLIC CONVENIENCE

This Section 7-1.08 defines the Contractor's responsibility with regard to convenience of the public and public traffic in connection with the Contractor's operations.

Attention is directed to Section 4-1.04, "Detours," for provisions relating to the passage of traffic around the work over detours.

Attention is directed to Section 7-1.09, "Public Safety," for provisions relating to the Contractor's responsibility for the safety of the public. The provisions in Section 7-1.09 are in addition to the provisions in this Section 7-1.08, and the Contractor will not be relieved of the responsibilities as set forth in Section 7-1.09 by reason of conformance with any of the provisions in this Section 7-1.08.

Attention is directed to Section 12, "Construction Area Traffic Control Devices," for provisions concerning flagging and traffic-handling equipment and devices used in carrying out the provisions in this Section 7-1.08 and Section 7-1.09.

In the event of a suspension of the work, attention is directed to Section 8-1.05, "Temporary Suspension of Work."

The Contractor shall so conduct operations as to offer the least possible obstruction and inconvenience to the public and shall have under construction no greater length or amount of work than can be prosecuted properly with due regard to the rights of the public.

Unless otherwise provided in the special provisions, all public traffic shall be permitted to pass through the work with as little inconvenience and delay as possible. Where possible, public traffic shall be routed on new or existing paved surfaces.

Spillage resulting from hauling operations along or across any public traveled way shall

be removed immediately by the Contractor at the Contractor's expense.

Existing traffic signals and highway lighting shall be kept in operation for the benefit of the traveling public during progress of the work, and other forces will continue routine maintenance of existing systems.

Construction operations shall be conducted in such a manner as to cause as little inconvenience as possible to abutting property owners.

Convenient access to driveways, houses, and buildings along the line of the work shall be maintained and temporary approaches to crossings or intersecting highways shall be provided and kept in good condition. When the abutting property owner's access across the right of way line is to be eliminated, or to be replaced under the Contract by other access facilities, the existing access shall not be closed until the replacement access facilities are usable.

The Contractor may be required to cover certain signs which regulate or direct public traffic to roadways that are not open to traffic. The Engineer will determine which signs shall be covered. Except as otherwise provided for construction area signs in Section 12, "Construction Area Traffic Control Devices," furnishing, installing and removing covers will be paid for as extra work as provided in Section 4-1.03D.

Roadway excavation and the construction of embankments shall be conducted in such a manner as to provide a reasonably smooth and even surface satisfactory for use by public traffic at all times; sufficient fill at culverts and bridges to permit traffic to cross shall be placed in advance of other grading operations; and if ordered by the Engineer roadway cuts shall be excavated in lifts and embankments constructed part width at a time, construction being alternated from one side to the other and traffic routed over the side opposite the one under construction. Culvert installation or culvert construction shall be conducted on but one-half the width of the traveled way at a time, and that portion of the traveled way being used by public traffic shall be kept open and unobstructed until the opposite side of the traveled way is ready for use by traffic.

Upon completion of rough grading at the grading plane, or placing any subsequent layer thereon, the surface of the roadbed shall be brought to a smooth, even condition free of humps and depressions, satisfactory for the use of public traffic.

After the surface of the roadbed has been brought to a smooth and even condition for the passage of public traffic as above provided, any work ordered by the Engineer for the accommodation of public traffic prior to commencing subgrade operations will be paid for as extra work as provided in Section 4-1.03D. After subgrade preparation for a specified layer of material has been completed, the Contractor shall, at the Contractor's expense, repair any damage to the roadbed or completed subgrade, including damage caused by the Contractor's operations or use by public traffic.

While subgrade and paving operations are underway, public traffic shall be permitted to use the shoulders and, if half-width paving methods are used, shall also be permitted to

use the side of the roadbed opposite the one under construction. When sufficient width is available, a passageway wide enough to accommodate at least 2 lanes of traffic shall be kept open at locations where subgrade and paving operations are in active progress. Any shaping of shoulders or reshaping of subgrade necessary for the accommodation of public traffic thereon during subgrade preparation and paving operations will be paid for as extra work as provided in Section 4-1.03D.

Water or dust palliative shall be applied if ordered by the Engineer for the alleviation or prevention of dust nuisance as provided in Section 10, "Dust Control."

The Contractor will be required to pay the cost of replacing or repairing all facilities installed under extra work for the convenience or direction or warning of public traffic that are lost while in the Contractor's custody, or are damaged by reason of the Contractor's operations to such an extent as to require replacement or repair, and deductions from any moneys due or to become due the Contractor will be made to cover the cost.

Whenever a section of surfacing, pavement or the deck of a structure has been completed, the Contractor shall open it to use by public traffic if the Engineer so orders or may open it to use by public traffic if the Engineer so consents. In either case the Contractor will not be allowed any compensation due to any delay, hindrance or inconvenience to the Contractor's operations caused by public traffic, but will thereupon be relieved of responsibility for damage to completed permanent facilities caused by public traffic, within the limits of that use. The Contractor will not be relieved of any other responsibility under the Contract nor will the Contractor be relieved of cleanup and finishing operations.

Except as otherwise provided in this Section 7-1.08 or in the special provisions, full compensation for conforming to the provisions in this Section 7-1.08 shall be considered as included in the prices paid for the various Contract items of work and no additional compensation will be allowed therefor.

Contractor shall furnish, install and maintain all traffic warning and directional signs necessary to maintain the facility in a passable condition at all times. Traffic control shall meet the requirements of the latest State of California Department of Transportation Manual of Traffic Controls for Construction and Maintenance Work Zones. The contractor shall submit a Traffic Control Plan for review and acceptance by the Engineer at the pre-construction meeting.

The Contractor shall designate in writing the name, address and telephone number of the employee and the superintendent to contact after working hours for the proper maintenance of barriers and signs.

Barricades of the flashing beacon variety shall be placed at each excavation site and left until the Engineer deems there is no longer a hazard.

Full compensation for furnishing all flag persons necessary for the direction of public traffic either through or around the work shall be considered as included in the various



contract items of work, and no additional compensation will be allowed therefor.

#### 7-1.09 PUBLIC SAFETY

It is the Contractor's responsibility to provide for the safety of traffic and the public during construction.

Attention is directed to Section 7-1.12, "Indemnification and Insurance."

Attention is directed to Section 7-1.08, "Public Convenience," for provisions relating to the Contractor's responsibility for providing for the convenience of the public in connection with the Contractor's operations.

Attention is directed to Section 12, "Construction Area Traffic Control Devices," for provisions concerning flagging and traffic-handling equipment and devices used in carrying out the provisions of Section 7-1.08 and this Section 7-1.09.

Whenever the Contractor's operations create a condition hazardous to traffic or to the public, the Contractor shall, at the Contractor's expense and without cost to the City of Vallejo, furnish, erect and maintain those fences, temporary railing (Type K), barricades, lights, signs and other devices and take such other protective measures that are necessary to prevent accidents or damage or injury to the public.

Fences, temporary railing (Type K), barricades, lights, signs, and other devices furnished, erected and maintained by the Contractor, at the Contractor's expense, are in addition to any construction area traffic control devices for which payment is provided for elsewhere in the Contract Documents.

The Contractor shall also furnish such flaggers as are necessary to give adequate warning to traffic or to the public of any dangerous conditions to be encountered, and payment therefor will be made as provided in Section 12-2.02, "Flagging Costs."

Signs, lights, flags, and other warning and safety devices and their use shall conform to the requirements set forth in the current Manual of Traffic Controls. Signs or other protective devices furnished and erected by the Contractor, at the Contractor's expense, as above provided, shall not obscure the visibility of, nor conflict in intent, meaning and function of either existing signs, lights and traffic control devices or any construction area signs and traffic control devices for which furnishing of, or payment for, is provided elsewhere in the Specifications. Signs furnished and erected by the Contractor, at the Contractor's expense, shall be approved by the Engineer as to size, wording and location.

The installation of general roadway illumination shall not relieve the Contractor of the responsibility for furnishing and maintaining any of the protective facilities herein before specified.

Construction equipment shall enter and leave the highway via existing ramps and crossovers and shall move in the direction of public traffic. All movements of workmen

and construction equipment on or across lanes open to public traffic shall be performed in a manner that will not endanger public traffic.

The Contractor's trucks or other mobile equipment which leave a freeway lane, that is open to public traffic, to enter the construction area, shall slow down gradually in advance of the location of the turnoff to give following public traffic an opportunity to slow down.

When leaving a work area and entering a roadway carrying public traffic, the Contractor's equipment, whether empty or loaded, shall in all cases yield to public traffic.

Lanes, ramps and shoulders shall be closed in accordance with the details shown on the plans, the provisions of Section 12, "Construction Area Traffic Control Devices," and as provided in the special provisions.

The Contractor shall notify the Engineer not less than 15 days before the anticipated start of each falsework and girder erection operation whenever the falsework or girders will reduce clearances available to public traffic.

Pedestrian openings through falsework shall be paved or provided with full width continuous wood walks and shall be kept clear. Pedestrians shall be protected from falling objects and curing water for concrete. Overhead protection for pedestrians shall extend not less than 1.2 m {4 feet} beyond the edge of the bridge deck. All pedestrian openings through falsework shall be illuminated in conformance with the provisions in Section 86-6.11, "Falsework Lighting."

Where the height of vehicular openings through falsework is less than 4.6 m {15 feet}, a W34B "Vertical Clearance" sign shall be provided above each opening facing approaching traffic. The signs shall have black letters and numbers on an orange reflectorized background and shall be illuminated so that the signs are clearly visible. The minimum height of the letters and numbers shall be 150 mm {6 inches} and 250 mm {10 inches}, respectively.

No material or equipment shall be stored where it will interfere with the free and safe passage of public traffic, and at the end of each day's work and at other times when construction operations are suspended for any reason, the Contractor shall remove all equipment and other obstructions from that portion of the roadway open for use by public traffic.

Temporary facilities which the Contractor uses to perform the work shall not be installed or placed where they will interfere with the free and safe passage of public traffic.

Temporary facilities which could be a hazard to public safety if improperly designed shall comply with design requirements specified in the Contract for those facilities or, if none are specified, with standard design criteria or codes appropriate for the facility involved. Working drawings and design calculations for the temporary facilities shall be prepared and signed by an engineer who is registered as a Civil Engineer in the State of California and shall be submitted to the Engineer for review pursuant to Section 5-1.02, "Plans and Working Drawings." The submittals shall designate thereon the standard design criteria

or codes used. Installation of the temporary facilities shall not start until the Engineer has reviewed and accepted the drawings.

Should the Contractor appear to be neglectful or negligent in furnishing warning devices and taking protective measures as above provided, the Engineer may direct attention to the existence of a hazard and the necessary warning devices shall be furnished and installed and protective measures taken by the Contractor at the Contractor's expense. Should the Engineer point out the inadequacy of warning devices and protective measures, that action on the part of the Engineer shall not relieve the Contractor from responsibility for public safety or abrogate the obligation to furnish and pay for these devices and measures.

Provision for the payment for signs, lights, flares, temporary railing (Type K), barricades, and other facilities by extra work as provided in Section 7-1.08, "Public Convenience," or by Contract item as provided in Section 12, "Construction Area Traffic Control Devices," shall in no wise relieve the Contractor from the responsibility as provided in this Section 7-1.09.

Except as otherwise provided in this Section 7-1.09 or in the special provisions, full compensation for conforming to all of the provisions in this Section 7-1.09 shall be considered as included in the prices paid for the various Contract items of work and no additional compensation will be allowed therefor.

The Contractor shall note that the work may be performed on or in the vicinity of private property. The Contractor shall, at all times, remove all litter, debris, and construction waste, minimize noise, dust, standing water, vibrations, hazardous conditions and provide safe access to these properties. The Contractor is prohibited from using any and all privately owned utilities. The Contractor's materials and equipment shall not be stored upon private property without written approval from the resident and/or owner.

Construction on private property during overtime, weekend, holiday or any other irregular period shall be performed only when the Contractor has requested and received written approval from the adjacent residents and the Engineer.

No separate payment shall be made for the above considerations. Full compensation for the above construction restrictions shall be considered as included in the price paid for the various items of work involved.

#### 7-1.10 USE OF EXPLOSIVES

Explosives shall not be used unless explicitly required in the Contract documents.

When explosives are used, the Contractor shall exercise the utmost care not to endanger life or property.

In advance of doing any blasting work within 60 m {200 feet} of any railroad's tracks or structures, the Contractor shall notify the railroad of the location, date, time and

approximate duration of the blasting operations.

#### 7-1.11 PRESERVATION OF PROPERTY

Attention is directed to Section 7-1.12, "Indemnification and Insurance," and to Section 8-1.10, "Utility and Non-Highway Facilities." Due care shall be exercised to avoid injury to existing highway improvements or facilities, utility facilities, adjacent property, and roadside trees, shrubs and other plants that are not to be removed.

Roadside trees, shrubs and other plants that are not to be removed, and pole lines, fences, signs, markers and monuments, buildings and structures, conduits, pipelines under or above ground, sewer and water lines, all highway facilities and any other improvements or facilities within or adjacent to the highway shall be protected from injury or damage, and if ordered by the Engineer, the Contractor shall provide and install suitable safeguards, accepted by the Engineer, to protect the objects from injury or damage. If the objects are injured or damaged by reason of the Contractor's operations, the objects shall be replaced or restored at the Contractor's expense. The facilities shall be replaced or restored to a condition as good as when the Contractor entered upon the work, or as good as required by the Specifications accompanying the Contract, if any of the objects are a part of the work being performed under the Contract. The Engineer may make or cause to be made those temporary repairs that are necessary to restore to service any damaged highway facility. The cost of the repairs shall be borne by the Contractor and may be deducted from any moneys due or to become due to the Contractor under the Contract.

The fact that any underground facility is not shown upon the plans shall not relieve the Contractor of the responsibility under Section 8-1.10, "Utility and Non-Highway Facilities." It shall be the Contractor's responsibility, pursuant thereto, to ascertain the location of those underground improvements or facilities which may be subject to damage by reason of the Contractor's operations.

Any damage to private property caused by the Contractor and adjudged to be the responsibility of the Contractor by the Engineer shall be rectified to the satisfaction of the Engineer within a reasonable time, depending upon the extent of the damage. Said reasonable time shall be as determined by the Engineer, and if the condition is not rectified, the Engineer shall have the power and authority to rectify said damage and the cost thereof to be paid for by the Contractor, either by direct payment to the City of Vallejo, or by deducting said amount from moneys due the Contractor.

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in protecting or repairing property as specified in this Section 7-1.11, shall be considered as included in the prices paid for the various Contract items of work and no additional compensation will be allowed therefor.

#### 7-1.12 INDEMNIFICATION AND INSURANCE

The Contractor's obligations regarding indemnification of the City of Vallejo and the requirements for insurance shall conform to the provisions in Sections 7-1.12A,

"Indemnification," and 7-1.12B, "Insurance," of this Section 7-1.12.

#### 7-1.12A INDEMNIFICATION

Contractor shall defend, indemnify, and save harmless City of Vallejo (including its inspectors, project managers, trustees, officers, agents, members, employees, affiliates, consultants, subconsultants, and representatives), and each of them, of and from any and all claims, demands, suits, causes of action, damages, costs, expenses, attorneys' fees, losses, or liability, in law or in equity, of every kind and nature whatsoever arising out of, or in connection with, Contractor's operations to be performed under this Contract, including, but not limited to:

- A. Personal injury (including, but not limited to, bodily injury, emotional injury or distress, sickness, or disease) or death to persons, including, but not limited to, any employees or agents of Contractor, City of Vallejo, or any subcontractor, or damage to property of anyone including the work itself (including loss of use thereof), caused or alleged to be caused in whole or in part by any negligent act or omission of Contractor, City of Vallejo, or anyone directly or indirectly employed by them, or anyone for whose acts they may be liable;
- B. Penalties threatened, sought, or imposed on account of the violation of any law, order, citation, rule, regulation, standard, ordinance, or statute, caused by the action or inaction of Contractor;
- C. Alleged infringement of any patent rights which may be brought arising out of Contractor's work;
- D. Claims and liens for labor performed or materials used or furnished to be used on the job, including all incidental or consequential damages from such claims or liens;
- E. Contractor's failure to fulfill any of the covenants set forth in these Contract Documents;
- F. Failure of Contractor to comply with the provisions of the Contract Documents relating to insurance; and,
- G. Any violation or infraction by Contractor of any law, order, citation, rule, regulation, standard, ordinance, or statute in any way relating to the occupational, health, or safety of employees.

The indemnities set forth in this section shall not be limited by the insurance requirements set forth in these Contract Documents.

Contractor's indemnification of City of Vallejo will not include indemnification for claims which arise as the result of the active negligence of City of Vallejo, or the sole negligence or willful misconduct of City, its agents, servants or independent contractors who are

directly responsible to City, or for defects in design furnished by such persons.

#### 7-1.12B INSURANCE

Insurance shall conform to the following requirements: The Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his/her agents, representatives, employees or SUBCONTRACTORS. Such insurance shall not be construed to relieve the Contractor of any liability in excess of such coverage. The cost of such insurance shall be included in the Contractor's bid.

A.. Minimum Scope of Insurance Coverage shall be at least as broad as:

1. Comprehensive General Liability Insurance Services.
2. Automobile Liability insurance.
3. Umbrella/Excess Liability insurance.
4. Workers' Compensation insurance as required by the Labor Code of the State of California and Employers Liability insurance.
5. Pollution Liability Insurance.

B. Minimum Limits of Insurance

Contractor shall maintain limits no less than:

1. General Liability: **\$1,000,000** per occurrence. **\$2,000,000** general aggregate for bodily injury, personal injury, and property damage including blanket contractual liability. **\$2,000,000** completed operations aggregate that shall extend a minimum of three (3) years' beyond project completion..
2. Automobile Liability: **\$1,000,000** per occurrence, including owned, non-owned and hired vehicles.
3. Umbrella/Excess Liability: **\$4,000,000**; for bodily injury, personal injury and property damage liability coverage at least as broad as the primary coverages above, including commercial general liability and employer's liability, to include the following terms and conditions:
  - a. A drop down feature requiring the policy to respond in the event that any primary insurance that would otherwise have applied proves to be uncollectable in whole or in part for any reason;

- i. Pay on Behalf of Insured” wording (NOT reimbursement)
  - ii. Concurrency of effective dates with primary policies; and
  - iii. Policies shall follow form to the underlying primary policies.
4. Workers' Compensation and Employers Liability: Workers' compensation limits as required by the Labor Code of the State of California and Employers Liability limits of **\$1,000,000** per accident.
5. Pollution Liability Insurance: **\$1,000,000** per claim and in the aggregate.

C. Deductibles and Self Insured Retention

Any deductibles or self - insured retention must be declared to and accepted by the City. At the option of the City, either: the insurer shall reduce or eliminate such deductibles or self - insured retention as respects the City, its officers, officials, employees and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

D. Other Insurance Provisions

1. General Liability and Automobile Liability Coverage

- a. The City must be named an additional insured on the ACORD form and on an endorsement form using the following language: “The City, its officers, officials, employees and volunteers are to be covered as insured as respects: liability arising out of activities performed by or on behalf of the Contractor, including the insured's general supervision of the Contractor; products and completed operations of the Contractor, premises owned, occupied or used by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to the City, its officers, officials, employees or volunteers and the Engineer, its officers, directors, employees and subconsultants.”
- b. The endorsement must state that the Contractor's insurance coverage shall be primary insurance as respects the City, its officers, officials, employees, and volunteers. Any insurance or self - insurance maintained by the City, its officers, officials, employees or volunteers and the Engineer, its officers,

directors, employees and subconsultants shall be excess of the Contractor's insurance and shall not contribute with it.

- c. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the City, its officers, officials, employees or volunteers and the Engineer, its officers, directors, employees and subconsultants.
- d. The Contractor's coverage applies separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

2. Workers' Compensation and Employers Liability Coverage

- a. The insurer shall agree to waive all rights of subrogation against the City, its officers, officials, employees and volunteers for losses arising from work performed by the Contractor for the City and the Engineer, its officers, directors, employees and subconsultants.

3. All Coverage

- a. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days' prior written notice has been given to the City.

E. Acceptability of Insurers

Insurance is to be placed with insurers with a Best's rating of no less than A:VII.

F. Verification of Coverage

Contractor shall furnish the City with certificates of insurance and with original endorsements effecting coverage required by this section. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. All certificates and endorsements are to be received and accepted by the City before work commences. The City reserves the right to require complete, certified copies of all required insurance policies, at any time.

Include insurer's NAIC numbers on ACCORD form.

G. Subcontractors

Contractor shall include all subcontractors as insured under its policies or



shall furnish separate certificates and endorsements for each subcontractor. All coverage for subcontractors shall be subject to all of the requirements stated herein.

I. Exclusions

This insurance does not cover tools owned by mechanics, any tools, equipment, scaffolding, staging, towers, and forms rented or owned by the Contractor, the capital value of which is not included in the cost of the work or any shanties or other structures erected for the sole convenience of the workers.

J. Cancellation or Non-Renewal

Policies must provide that notice of cancellation or non-renewal must be received by the City at least thirty days prior to such event.

#### 7-1.12B(4) ENFORCEMENT

The City of Vallejo may take any steps as are necessary to assure Contractor's compliance with its obligations. Should any insurance policy lapse or be canceled during the Contract period the Contractor shall, within thirty (30) days prior to the effective expiration or cancellation date, furnish the City of Vallejo with evidence of renewal or replacement of the policy. Failure to continuously maintain insurance coverage as herein provided is a material breach of Contract. In the event the Contractor fails to maintain any insurance coverage required, the City of Vallejo may, but is not required to, maintain this coverage and charge the expense to the Contractor or terminate Contractor's control over the work. The required insurance shall be subject to the review and acceptance of City of Vallejo, but any acceptance of insurance certificates by the City of Vallejo shall in no way limit or relieve the Contractor of the Contractor's duties and responsibilities under the Contract to indemnify, defend and hold harmless the City of Vallejo, its officers, agents, and employees. Insurance coverage in the minimum amounts set forth herein shall not be construed to relieve the Contractor for liability in excess of such coverage, nor shall it preclude the City of Vallejo from taking other actions as is available to it under any other provision of the Contract or law. Failure of the City of Vallejo to enforce in a timely manner any of the provisions of this section shall not act as a waiver to enforcement of any of these provisions at a later date.

#### 7-1.12B(5) SELF-INSURANCE

Self-insurance programs and self-insured retentions in insurance policies are subject to separate annual review and acceptance by the City of Vallejo of evidence of the Contractor's financial capacity to respond. Additionally, self-insurance programs or retentions must provide the City of Vallejo with at least the same protection from liability and defense of suits as would be afforded by first-dollar insurance.

#### 7-1.12B(6) MISCELLANEOUS

Nothing contained in the Contract is intended to make the public or any member thereof a third party beneficiary of the Insurance or Indemnity provisions of these Standard Specifications, nor is any term, condition or other provision of the Contract intended to establish a standard of care owed to the public or any member thereof.

#### 7-1.125 LEGAL ACTIONS AGAINST THE CITY OF VALLEJO

In the event litigation is brought against the City of Vallejo concerning compliance by the City of Vallejo with State or Federal laws, rules or regulations applicable to public works construction, the provisions of this Section 7-1.125 shall apply.

- A. If, pursuant to court order, the City of Vallejo prohibits the Contractor from performing all or any portion of the work, the delay will be considered a right of way delay within the meaning of Section 8-1.09, "Right of Way Delays," unless the Contract is terminated as hereinafter provided.
- B. If, pursuant to court order (other than an order to show cause) the City of Vallejo is prohibited from requiring the Contractor to perform all or any portion of the work, the City of Vallejo may, if it so elects, eliminate the enjoined work pursuant to Section 4-1.03, "Changes," or terminate the Contract.
- C. If the final judgment in the action prohibits the City of Vallejo from requiring the Contractor to perform all or any portion of the work, the City of Vallejo will either eliminate the enjoined work pursuant to Section 4-1.03, "Changes," or terminate the Contract.
- D. If the Contract is to be terminated, the termination and the determination of the total compensation payable to the Contractor shall be governed by the provisions in Section 8-1.11, "Termination of Contract."

#### 7-1.13 DISPOSAL OF MATERIAL OUTSIDE THE PUBLIC RIGHT OF WAY

If the Contractor elects to dispose of materials at locations other than those where arrangements have been made by the City of Vallejo, or, if material is to be disposed of and the City of Vallejo has not made arrangements for disposal of the material, the Contractor shall make arrangements for disposing of the materials outside the public right of way and shall pay all costs involved. Arrangements shall include, but not be limited to, entering into agreements with property owners and obtaining necessary permits, licenses and environmental clearances. Before disposing of any material outside the public right of way, the Contractor shall furnish to the Engineer satisfactory evidence that the Contractor has entered into agreements with the property owners of the site(s) involved and has obtained the appropriate permits, licenses and clearances.

When any material is to be disposed of outside the public right of way, and the City of Vallejo has not made arrangements for disposal of the material, the Contractor shall first obtain written authorization from the property owner on whose property the disposal is to

be made and the Contractor shall file with the Engineer the authorization or a certified copy thereof together with a written release from the property owner absolving the City of Vallejo from any and all responsibility in connection with the disposal of material on the property. Before any material is disposed of on the property, the Contractor shall obtain written permission from the Engineer to dispose of the material at the location designated in the authorization.

When material is disposed of as above provided and the disposal location is visible from public view, the Contractor shall dispose of the material in a neat and uniform manner to the satisfaction of the Engineer.

Where the City of Vallejo has made arrangements with owners of land in the vicinity of a project for the disposal of materials on an owner's property, the arrangements are made solely for the purpose of providing all Bidders an equal opportunity to dispose of the materials on the property. Bidders or Contractors may, upon written request, inspect the documents evidencing the arrangements between property owners and the City of Vallejo. The Contractor may, if the Contractor so elects, exercise any rights that have been obtained, which may be exercised by a Contractor under the arrangements, subject to and upon the conditions hereinafter set forth.

Such arrangements are not a part of the Contract and it is expressly understood and agreed that the City of Vallejo assumes no responsibility to the Bidder or Contractor whatsoever in respect to the arrangements made with the property owner to dispose of materials thereon and that the Contractor shall assume all risks in connection with the use of the property, the terms upon which the use shall be made, and there is no warranty or guaranty, either express or implied, as to the quantity or types of materials that can be disposed of on the property, or that any material can be disposed of on the property.

In those instances in which the City of Vallejo has compiled "Materials Information" as referred to in Section 2-1.03, "Examination of Plans, Specifications, Contract, and Site of Work," the compilation will include the documents setting forth the arrangement made with some of the property owners for the disposal of material on those owners' properties. The inclusion of the documents therein shall not in any respect operate as a waiver of any of the provisions in this Section 7-1.13 concerning the documents.

The Bidder or Contractor shall make such independent investigation and examination as the Bidder or Contractor deems necessary to be satisfied as to the quantity and types of materials which may be disposed of on the property (if any) and the rights, duties and obligations acquired or undertaken under the arrangement with the property owner.

Notwithstanding that the Contractor may elect to dispose of materials on any such property owner's property, no material may be disposed of on that property unless the Contractor has first either:

- A. Executed a document that will guarantee to hold the owner harmless from all claims for injury to persons or damage to property resulting from the Contractor's operations on the property owner's premises and also agree to conform to all other

provisions set forth in the arrangement made between the City of Vallejo and the property owner, or

- B. Entered into an agreement with the owner of the disposal site on any terms mutually agreeable to the owner and the Contractor; provided that the Contractor shall furnish to the Engineer a release, in a form satisfactory to the Engineer, executed by the owner, relieving the City of Vallejo of any and all obligations under the City of Vallejo's arrangement with the owner.

If the Contractor elects to dispose of material under (1), the use of the site shall be subject to the terms, conditions and limitations of the arrangement made between the property owner and the City of Vallejo and the Contractor shall pay those charges that are provided for in the arrangement made by the City of Vallejo with the property owner, and deductions will be made from any moneys due or that may become due the Contractor under the Contract sufficient to cover the charges for the material disposed of.

If the Contractor elects to dispose of material under (2), the Contractor shall pay those charges that are provided for in the agreement between the owner and the Contractor and deductions will not be made from any moneys due or that may become due the Contractor under the Contract to cover the charges.

Before acceptance of the Contract, the Engineer may require the Contractor to submit written evidence that the owner of the disposal site is satisfied that the Contractor has satisfactorily complied with the provisions of either - (1), the arrangement between the City of Vallejo and the owner, or (2), the agreement between the owner and the Contractor, as the case may be.

Full compensation for all costs involved in disposing of materials as specified in this Section 7-1.13, including all costs of hauling, shall be considered as included in the price paid for the Contract item of work involving the materials and no additional compensation will be allowed therefor.

#### 7-1.14 COOPERATION

Should construction be under way by other forces or by other Contractors within or adjacent to the limits of the work specified or should work of any other nature be under way by other forces within or adjacent to those limits, the Contractor shall cooperate with all the other Contractors or other forces to the end that any delay or hindrance to their work will be avoided. The City reserves the right to perform, or to have performed, other or additional work at or near the site (including material sources) at any time, by the use of other forces, without changing the character of the work.

When 2 or more Contractors are employed on related or adjacent work, or obtain materials from the same material source, as provided in Section 6-2.02, "Possible Local Material Sources," or Section 6-2.03, "Mandatory Local Material Sources," each shall conduct their operations in such a manner as not to cause any unnecessary delay or hindrance to the other.

Each Contractor shall be responsible to the other for all damage to work, to persons or property caused to the other by their operations, and for loss caused the other due to unnecessary delays or failure to finish the work within the time specified for completion.

#### 7-1.15 RELIEF FROM MAINTENANCE AND RESPONSIBILITY

Upon request of the Contractor, the Director, or the Director's designated representative, may relieve the Contractor of the duty of maintaining and protecting certain portions of the work as described below, which have been completed in all respects in accordance with the requirements of the Contract and to the satisfaction of the Engineer, and thereafter except with the Contractor's consent, the Contractor will not be required to do further work thereon. In addition, the action by the Director will relieve the Contractor of responsibility for injury or damage to those completed portions of the work resulting from use by public traffic or from the action of the elements or from any other cause but not from injury or damage resulting from the Contractor's own operations or from the Contractor's negligence.

Portions of the work for which the Contractor may be relieved of the duty of maintenance and protection as provided in the above paragraph include, but are not limited to, the following:

- A. The completion of 0.5-km {0.3-mile} of roadway or 0.5-km {0.3-mile} of one roadway of a divided highway or a frontage road including the traveled way, shoulders, drainage control facilities, planned roadway protection work, lighting and any required traffic control and access facilities.
- B. A bridge or other structure of major importance.
- C. A complete unit of a traffic control signal system or of a highway lighting system.
- D. Non-highway facilities constructed for other agencies.

However, nothing in this Section 7-1.15 providing for relief from maintenance and responsibility will be construed as relieving the Contractor of full responsibility for making good any defective work or materials found at any time before the formal written acceptance of the entire Contract by the Director. Furthermore, nothing in this section shall obligate the Director to relieve the Contractor for responsibility for any portion of the work and the Director may refuse to relieve the Contractor from responsibility for any reason, at the Director's (or his delagee's) sole discretion.

#### 7-1.16 CONTRACTOR'S RESPONSIBILITY FOR THE WORK AND MATERIALS

The Contractor shall be completely responsible for the care and condition of the project improvements in their entirety until completion of the maintenance period and acceptance by the City. The Contractor shall provide all watchmen, guards, and security devices, as he/she deems necessary.

Until the acceptance of the Contract, the Contractor shall have the charge and care of the work and of the materials to be used therein (including materials for which the Contractor has received partial payment as provided in Section 9-1.06, "Partial Payments," or materials which have been furnished by the City of Vallejo) and shall bear the risk of injury, loss or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from the non-execution of the work, except as provided in Sections 7-1.08, "Public Convenience," and 7-1.15, "Relief From Maintenance and Responsibility." The Contractor shall rebuild, repair, restore, and make good all injuries, losses or damages to any portion of the work or the materials occasioned by any cause before its completion and acceptance and shall bear the expense thereof, except as otherwise expressly provided in Section 7-1.165, "Damage by Storm, Flood, Tsunami or Earthquake," and in Section 19-2.04, "Slides and Slipouts," and except for those injuries, losses, or damages that are directly and proximately caused by acts of the Federal Government or the public enemy. Where necessary to protect the work or materials from damage, the Contractor shall, at the Contractor's expense, provide suitable drainage of the roadway and erect those temporary structures that are necessary to protect the work or materials from damage. The suspension of the work from any cause whatever shall not relieve the Contractor of the responsibility for the work and materials as herein specified. If ordered by the Engineer, the Contractor shall, at the Contractor's expense, properly store materials which have been partially paid for by the City of Vallejo or which have been furnished by the City of Vallejo. Storage by the Contractor shall be on behalf of the City of Vallejo and the City of Vallejo shall at all times be entitled to the possession of the materials, and the Contractor shall promptly return the materials to the site of the work when requested. The Contractor shall not dispose of any of the materials so stored except on written authorization from the Engineer.

#### 7-1.165 DAMAGE BY STORM, FLOOD, TSUNAMI OR EARTHQUAKE

Attention is directed to Section 7-1.16, "Contractor's Responsibility for the Work and Materials." In the event damage to the work is caused by a storm, flood, tsunami, earthquake or other natural disaster which constitutes an "Occurrence," as hereinafter defined, the provisions in this Section 7-1.165 shall be applicable, and the Contractor may apply in writing to the Engineer for the City of Vallejo to pay or participate in the cost of repairing damage to the work from that cause or, in lieu thereof, and at the sole discretion of the City of Vallejo, terminate the Contract and relieve the Contractor of further obligation to perform the work, subject to the following:

- A. Occurrence - "Occurrence" shall include tsunamis, earthquakes in excess of a magnitude of 3.5 on the Richter Scale, and storms, floods and other natural disasters as to which the Governor has proclaimed a state of emergency when the damaged work is located within the territorial limits to which the proclamation is applicable or, which were, in the opinion of the Engineer, of a magnitude at the site of the work sufficient to have caused such a proclamation had they occurred in a populated area or in an area in which such a proclamation was not already in effect.
- B. Application by Contractor - The Contractor's written request for the City of Vallejo to pay or to participate in the cost of rebuilding, repairing, restoring or otherwise remedying the damage to the work caused by the Occurrence shall be submitted

to the Engineer before performing any work other than emergency work, including emergency work necessary to provide for passage of public traffic.

- C. Protecting the Work from Damage - Nothing in this section shall be construed to relieve the Contractor of the responsibility to protect the work from damage. The Contractor shall bear the entire cost of repairing damage to the work caused by the Occurrence which the Engineer determines was due to the failure of the Contractor to comply with the requirements of the Contract Documents, take the best measures to protect the work or exercise the best engineering and construction practices in the conduct of the work, and those repair costs shall be excluded from consideration under the provisions of this section.
- D. Repair Work - Repair of damaged work under the provisions of this section shall be pursuant to a Contract change order issued hereunder and specifying the repair work to be performed on the damaged facility. The repair work shall consist of restoring the in-place construction (for the purposes of this section erected falsework and formwork shall be considered in-place construction) to the same state of completion to which the work had advanced prior to the Occurrence. Emergency work which the Engineer determines would have been part of the repair work if it had not previously been performed, will be considered to be part of the repair work.

The City of Vallejo reserves the right to make changes in the plans and Specifications applicable to the portions of the work to be repaired, and if those changes will increase the cost of repairing the damage over the Engineer's estimate of the cost of repair without the changes, the Contractor will be paid for the increased costs in accordance with Subsection E and the increased cost amount shall not be considered in determining the cost of repair to be borne by the Contractor under Subsection F.

Nothing in this section shall be construed to relieve the Contractor of full responsibility for the risk of injury, loss or damage to materials not yet incorporated in the work and to materials, tools and equipment (except erected falsework and formwork) used to perform the work, or to relieve the Contractor of responsibility under Section 7-1.12, "Indemnification and Insurance." The provisions of this section shall not be applicable to the repair of damage caused by an Occurrence to any portion of the work as to which the Contractor has been granted relief from maintenance and responsibility pursuant to Section 7-1.15, "Relief From Maintenance and Responsibility," or to the removal of slides and slipouts or the repair and restoration of damage to the work resulting from slides and slipouts pursuant to Section 19-2.04, "Slides and Slipouts."

- E. Determination of Costs - Unless otherwise agreed between the Engineer and the Contractor, the cost of the work performed pursuant to this Section 7-1.165 will be determined in conformance with the provisions in Section 9-1.03, "Force Account Payment," except there shall be no markup allowance pursuant to Section 9-1.03A, "Work Performed by Contractor," unless the Occurrence that caused the damage was a tsunami or earthquake. The cost of emergency work, which the Engineer determines would have been part of the repair work if it had not

previously been performed, will be determined in the same manner as the authorized repair work. The cost of repairing damaged work which was not in compliance with the requirements of the plans and Specifications shall be borne solely by the Contractor, and those costs shall not be considered in determining the cost of repair under this Subsection E.

F. Payment for Repair Work - BLANK

G. Termination of Contract - If the City of Vallejo elects to terminate the Contract, the termination and the determination of the total compensation payable to the Contractor shall be governed by the provisions of Section 8-1.11, "Termination of Contract."

#### 7-1.17 ACCEPTANCE OF CONTRACT

When the Engineer has made the final inspection as provided in Section 5-1.13, "Final Inspection," and determines that the Contract work has been completed in all respects in accordance with the Contract Documents, the Engineer will recommend that the Director formally accept the Work as complete. Upon satisfactory completion of the Work and following the written acceptance of the Work as such by the Director or the Director's designated representative, the Engineer shall recommend the acceptance of the Contract to the City Council. Upon acceptance of the Contract as complete by the City Council, the said Council shall cause a Notice of Completion to be filed and recorded in the records of the Solano County Recorder's Office.

#### 7-1.18 PROPERTY RIGHTS IN MATERIALS

Nothing in the Contract shall be construed as vesting in the Contractor any right of property in the materials used after they have been attached or affixed to the work or soil or after partial payment has been made as provided in Section 9-1.06, "Partial Payments," for material delivered on the ground or stored subject to or under the control of the City of Vallejo and unused. All the material shall become the property of the City of Vallejo upon being so attached or affixed or upon payment for materials delivered on the ground or stored subject to or under the control of the City of Vallejo and unused, as provided in Section 9-1.06.

#### 7-1.19 RIGHTS IN LAND AND IMPROVEMENTS

Nothing in these Contract Documents shall be construed as allowing the Contractor to make any arrangements with any person to permit occupancy or use of any land, structure, or building within the limits of the Contract for any purpose whatsoever, either with or without compensation, in conflict with any agreement between the City of Vallejo and any owner, former owner, or tenant of the land, structure, or building.

The Contractor shall not occupy City of Vallejo-owned property outside the right of way as shown on the plans or maps, unless the Contractor enters into a rental agreement with the City of Vallejo. The agreement will be based on the fair rental values.



#### 7-1.20 PERSONAL LIABILITY

Neither the Director, the Engineer nor any other officer or authorized employee of the City of Vallejo, nor any officer or employee of any county, city or district shall be personally responsible for any liability arising under or by virtue of the Contract.

#### 7-1.21 REPAIR OF EQUIPMENT

The work of installing, assembling, repairing or reconditioning, or other work of any nature on machinery, equipment or tools used in or upon the work shall be considered a part of the work to be performed under the Contract and any laborers, workers or mechanics working on the machinery, equipment or tools, unless employed by bona fide commercial repair shops, garages, blacksmith shops or machine shops, which have been established and operating on a commercial basis for a period of at least 2 months prior to the award of the Contract, shall be subject to all the requirements relating to labor set forth in these Contract Documents.

#### 7-1.22 MATERIAL PLANTS

The construction, erection and operation of material production, proportioning or mixing plants from which material is used wholly on the Contract or on Contracts with the City of Vallejo shall be considered a part of the work to be performed under the Contract and any laborers, workers or mechanics working on those plants shall be subject to all of the requirements relating to labor set forth in these Contract Documents.

*This page intentionally left  
blank*

## SECTION 8: PROSECUTION AND PROGRESS

### 8-1.01 SUBCONTRACTING

The Contractor shall give personal attention to the fulfillment of the Contract and shall keep the work under the Contractor's control.

No subcontractor will be recognized as such, and all persons engaged in the work of construction will be considered as employees of the Contractor and the Contractor will be held responsible for their work, which shall be subject to the provisions of the Contract Documents.

The Contractor shall perform, with the Contractor's own organization, Contract work amounting to not less than 50 percent of the original total Contract price, except that any designated "Specialty Items" may be performed by subcontract and the amount of any designated "Specialty Items" performed by subcontract may be deducted from the original total Contract price before computing the amount of work required to be performed by the Contractor with the Contractor's own organization. When items of work in the Engineer's Estimate are preceded by the letters (S) or (S-F), those items are designated as "Specialty Items." Where an entire item is subcontracted, the value of work subcontracted will be based on the Contract item bid price. When a portion of an item is subcontracted, the value of work subcontracted will be based on the estimated percentage of the Contract item bid price, determined from information submitted by the Contractor, subject to acceptance by the Engineer.

Subcontracts shall include provisions that the Contract between the City of Vallejo and the Contractor is part of the subcontract, and that all terms and provisions of the Contract are incorporated in the subcontract. Subcontracts shall also contain certification by the subcontractor that the subcontractor is experienced in and qualified to do, and knowledgeable about, the subcontracted work. Copies of subcontracts shall be available to the Engineer upon written request, and shall be provided to the Engineer within three (3) days of the Engineer's request.

Before work is started on a subcontract, the Contractor shall file with the Engineer a written statement showing the work to be subcontracted, the names of the subcontractors and the description of each portion of the work to be subcontracted.

Pursuant to the provisions of Section 6109 of the Public Contract Code, the Contractor shall not perform work on a public works project with a subcontractor who is ineligible to perform work on the public works project pursuant to Section 1777.1 or 1777.7 of the Labor Code.

When a portion of the work which has been subcontracted by the Contractor is not being prosecuted in a manner satisfactory to the City of Vallejo, the subcontractor shall be removed immediately on the request of the Engineer and shall not again be employed on the work.

The roadside production of materials produced by other than the Contractor's forces shall be considered as subcontracted. Roadside production of materials shall be construed to be production of aggregates of all kinds with portable, semi portable or temporary crushing or screening, proportioning and mixing plants established or reopened for the purpose of supplying aggregate or material for a particular project or projects. The erection, establishment or reopening of the plants and the operation thereof in the production of materials for use on the work shall conform to the requirements relating to labor set forth in these Specifications and in the special provisions.

When any portion of the work which has been subcontracted by the Contractor is not being prosecuted in a satisfactory manner, the subcontract for such work shall be terminated immediately by the Contractor upon written notice from the Engineer, and the subcontractor shall not again be employed on the type of work in which his or her performance was unsatisfactory.

In no case shall the use of subcontractors in any way alter the position of the Contractor or Contractor's sureties with relation to this Contract. When a subcontractor is used, the responsibility for every portion of the work shall still remain with the Contractor.

The Contractor shall pay, when due, all valid claims of subcontractors, suppliers, and workmen with respect to the project.

The mention herein of any specific duty or responsibility imposed upon the Contractor shall not be construed as a limitation or restriction of any other responsibility or duty imposed upon the Contractor by the Contract, said reference being made herein merely for the purpose of explaining the specific duty or responsibility.

#### 8-1.02 ASSIGNMENT

The performance of the Contract may not be assigned, except upon the written consent of the Director. Consent will not be given to any proposed assignment which would relieve the original Contractor or the Contractor's surety of their responsibilities under the Contract nor will the Director consent to any assignment of a part of the work under the Contract.

The Contractor may assign moneys due or to become due the Contractor under the Contract and the assignment will be recognized by the City of Vallejo, if given proper notice thereof, to the extent permitted by law, but any assignment of moneys shall be subject to all proper set-offs in favor of the City of Vallejo and to all deductions provided for in the Contract and particularly all money withheld, whether assigned or not, shall be subject and subordinate to claims of the City of Vallejo.

#### 8-1.03 BEGINNING OF WORK

The Contractor shall begin work within 10 calendar days after the first working day stated on the Notice to Proceed, and shall diligently prosecute the same to completion within the time limit provided in the Notice to Contractors.

The Contractor shall notify the Engineer, in writing, of the Contractor's intent to begin work at least 72 hours before work is begun. The notice shall be delivered to the Engineer and shall specify the date the Contractor intends to start. If the project has more than one location of work, a separate notice shall be given for each location.

Should the Contractor begin work in advance of receiving written Notice to Proceed, any work performed by the Contractor in advance of the date of Notice to Proceed shall be considered as having been done by the Contractor at the Contractor's own risk and as a volunteer.

The Notice to Proceed shall constitute authority for the Contractor to enter upon the site of the work and to begin operations, upon condition that the Contractor has strictly complied with all requirements of these Contract Documents, including but not limited to, furnishing all required documentation and certificates of insurance. If Contractor has not provided City of Vallejo with all documents required by these Contract Documents as of the date of the Notice to Proceed, Contractor shall not be allowed on the site of the work or allowed to start work on the Project, notwithstanding the issuance of a Notice to Proceed.

When the Contractor has started work on the Project, the Contractor shall diligently prosecute the work to completion within the time limit provided in the Contract Documents.

The counting of working days shall begin on the date stated as the first working day on the Notice to Proceed, whether or not Contractor is allowed on the work site due to Contractor's failure to furnish City of Vallejo with all documentation required by these Contract Documents. In no event shall there be a period of time greater than thirty (30) days, from the time the Contract forms are first received by the Contractor and the commencement of the contract time, regardless of the receipt or lack thereof by City of Vallejo of all documents required by these Contract Documents. The Contractor shall, on commencing operations, take all precautions required for public safety and shall observe all the provisions in these Specifications and the special provisions.

8-1.04 (BLANK)

8-1.05 TEMPORARY SUSPENSION OF WORK

The Engineer shall have the authority to suspend the work wholly or in part, for any time period as the Engineer deems necessary, due to unsuitable weather, or to such other conditions considered unfavorable for the suitable prosecution of the work, or for any time period as the Engineer deems necessary due to the failure on the part of the Contractor to carry out orders given, or to perform any provision of the Contract, or for any other reason. The Contractor shall immediately comply with the written order of the Engineer to suspend the work wholly or in part. The suspended work shall be resumed when conditions are favorable and methods are corrected, as ordered or accepted in writing by the Engineer, or as directed by the Engineer.

In the event that a suspension of work is ordered as provided above, and should that suspension be ordered by reason of the failure of the Contractor to carry out orders or to perform any provision of the Contract; or by reason of weather conditions being unsuitable for performing any item or items of work, which work, in the sole opinion of the Engineer, could have been performed prior to the occurrence of the unsuitable weather conditions had the Contractor diligently prosecuted the work when weather conditions were suitable; the Contractor, at the Contractor's expense, shall do all the work necessary to provide a safe, smooth, and unobstructed passageway through construction for use by public traffic during the period of that suspension as provided in Sections 7-1.08, "Public Convenience," and 7-1.09, "Public Safety," and as specified in the special provisions for the work. In the event that the Contractor fails to perform the work above specified, the City of Vallejo will perform that work and the cost thereof will be deducted from moneys due or to become due the Contractor.

In the event that a suspension of work is ordered by the Engineer due to unsuitable weather conditions, and in the sole opinion of the Engineer, the Contractor has prosecuted the work with energy and diligence prior to the time that operations were suspended, the cost of providing a smooth and unobstructed passageway through the work will be paid for as extra work as provided in Section 4-1.03D or, at the option of the Engineer, that work will be performed by the City of Vallejo at no cost to the Contractor.

If the Engineer orders a suspension of all of the work or a portion of the work which is the current controlling operation or operations, due to unsuitable weather or to other conditions considered unfavorable to the suitable prosecution of the work, the days on which the suspension is in effect shall not be considered working days as defined in Section 8-1.06, "Time of Completion." If a portion of work at the time of the suspension is not a current controlling operation or operations, but subsequently does become the current controlling operation or operations, the determination of working days will be made on the basis of the then current controlling operation or operations.

If a suspension of work is ordered by the Engineer, due to the failure on the part of the Contractor to carry out orders given or to perform any provision of the Contract, the days on which the suspension order is in effect shall be considered working days if those days are working days within the meaning of the definition set forth in Section 8-1.06, "Time of Completion."

No Contract adjustment will be allowed under the provisions specified in this section to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided for or excluded under any term or condition of this Contract.

Any Contract adjustment warranted due to suspension of work ordered by the Engineer will be made in the same manner as provided for right of way delays in Section 8-1.09, "Right of Way Delays."

In the event of a suspension of work under any of the conditions set forth in this Section 8-1.05, the suspension of work shall not relieve the Contractor of the responsibilities as set forth in Section 7, "Legal Relations and Responsibility."

## 8-1.06 TIME OF COMPLETION

The Contractor shall complete all or any designated portion of the work called for under the Contract Documents in all parts and requirements within the time set forth in the Contract Documents.

A working day is defined as any day, except as follows:

- A. Saturdays, Sundays and legal holidays;
- B. Days on which the Contractor is prevented by inclement weather or conditions resulting immediately therefrom adverse to the current controlling operation or operations, as determined by the Engineer, from proceeding with at least 75 percent of the normal labor and equipment force engaged on that operation or operations for at least 60 percent of the total daily time being currently spent on the controlling operation or operations; or
- C. Days on which the Contractor is prevented, by reason of requirements in "Maintaining Traffic" of the special provisions, from working on the controlling operation or operations for at least 60 percent of the total daily time being currently spent on the controlling operation or operations.

Should the Contractor prepare to begin work at the regular starting time of any day on which inclement weather, or the conditions resulting from the weather, or the condition of the work, prevents the work from beginning at the usual starting time and the crew is dismissed as a result thereof and the Contractor does not proceed with at least 75 percent of the normal labor and equipment force engaged in the current controlling operation or operations for at least 60 percent of the total daily time being currently spent on the controlling operation or operations, the Contractor will not be charged for a working day whether or not conditions should change thereafter during that day and the major portion of the day could be considered to be suitable for those construction operations.

The current controlling operation or operations is to be construed to include any feature of the work (e.g., an operation or activity, or a settlement or curing period) considered at the time by the Engineer and the Contractor, which, if delayed or prolonged, will delay the time of completion of the Contract.

Determination that a day is a non-working day by reason of inclement weather or conditions resulting immediately therefrom, shall be made by the Engineer. The Contractor will be allowed 15 days from the issuance of the weekly statement of working days in which to file a written protest setting forth in what respects the Contractor differs from the Engineer; otherwise, the decision of the Engineer shall be deemed to have been accepted by the Contractor as correct. The Engineer will furnish the Contractor a weekly statement showing the number of working days charged to the Contract for the preceding week, the number of working days of time extensions being considered or accepted, the number of working days originally specified for the completion of the Contract and the

number of working days remaining to complete the Contract and the extended date for completion thereof, except when working days are not being charged in conformance with the provisions in Section 8-1.05, "Temporary Suspension of Work."

#### 8-1.07 LIQUIDATED DAMAGES

It is agreed by the parties to the Contract that in case all the work called for under the Contract in all parts and requirements is not completed within the number of working days as set forth in the Contract Documents, damage will be sustained by the City of Vallejo, and that it is and will be impracticable and extremely difficult to ascertain and determine the actual damage which the City of Vallejo will sustain in the event of and by reason of the delay; and it is therefore agreed that the Contractor will pay to the City of Vallejo, the sum set forth in the Contract Documents per day for each and every calendar day's delay in completing the work in excess of the number of working days prescribed; and the Contractor agrees to pay the liquidated damages herein provided for, and further agrees that the City of Vallejo may deduct the amount thereof from any moneys due or that may become due the Contractor under the Contract.

The Contractor will be granted an extension of time and will not be assessed with liquidated damages or the cost of engineering and inspection for any portion of the delay in completion of the work beyond the time named in the Contract Documents for the completion of the work caused by acts of God or of the public enemy, fire, floods, tsunamis, earthquakes, epidemics, quarantine restrictions, strikes, labor disputes, shortage of materials and freight embargoes, provided that the Contractor shall notify the Engineer in writing of the causes of delay within 3 days from the beginning of that delay. The Engineer shall ascertain the facts and the extent of the delay, and the Engineer's findings thereon shall be final and conclusive.

No extension of time will be granted for a delay caused by a shortage of materials unless the Contractor furnishes to the Engineer documentary proof that the Contractor has made every effort to obtain the materials from all known sources in a diligent and timely manner, and further proof in the form of supplementary progress schedules, as required in Section 8-1.04, "Progress Schedule," that the inability to obtain the materials when originally planned, did in fact cause a delay in final completion of the entire work which could not be compensated for by revising the sequence of the Contractor's operations. The term "shortage of materials," as used in this section, shall apply only to materials, articles, parts or equipment which are standard items and are to be incorporated in the work. The term "shortage of materials," shall not apply to materials, parts, articles or equipment which are processed, made, constructed, fabricated or manufactured to meet the specific requirements of the Contract. Only the physical shortage of material will be considered under these provisions as a cause for extension of time. Delays in obtaining materials due to priority in filling orders will not constitute a shortage of materials.

Except for the additional compensation provided for in Section 8-1.09, "Right of Way Delays," the Contractor shall have no claim for damage or compensation for any delay or hindrance.

It is the intention of the above provisions that the Contractor shall not be relieved of liability



for liquidated damages or engineering and inspection charges for any period of delay in completion of the work in excess of that expressly provided for in this Section

#### 8-1.08 TERMINATION OF CONTROL

Whenever, in the opinion of the City of Vallejo, the Contractor has failed to supply an adequate force of labor, equipment, or materials of proper quality, or has failed in any other respect to prosecute the work with the diligence specified in the Contract; or if Contractor should refuse or fail to comply with laws, ordinances, or directions of the Engineer; or if Contractor should fail to make prompt payments to subcontractors or for labor or materials; or otherwise be in breach of this Contract; the City of Vallejo may give written notice of at least five (5) calendar days to the Contractor and Contractor's sureties that if the defaults are not remedied within a time specified in such notice, the Contractor's control over the work will be terminated.

If the Contractor should be adjudged a bankrupt, or make an assignment for the benefit of Contractor's creditors, or if a receiver should be appointed on account of Contractor's insolvency, the City of Vallejo may declare the Contractor's control over the work terminated, and so notify the Contractor and Contractor's sureties.

Upon such termination, the City of Vallejo may take possession, and use all or any part, of the Contractor's materials, tools, equipment, and appliances upon the premises to complete the work; the City of Vallejo assuming responsibility for the final relinquishment of such equipment at the conclusion of the work, or sooner, at its option, in as good condition as when it was taken over, reasonable wear and tear excepted; and the City of Vallejo agrees to pay for such materials and the use of said equipment at a reasonable compensation.

Upon such termination or the City of Vallejo's declaration that the Contractor is in default, the City of Vallejo may direct the surety to complete, or cause to be completed, the Contract work, or the City of Vallejo may direct that all or any part of the work be completed by day labor, or by employment of other contractors on informal contracts, or both. If the City of Vallejo directs the surety to complete or cause to be completed, the Contract work, Contractor's performance bond surety agrees to immediately undertake to complete or cause to be completed, all Contract work. If surety fails or refuses to immediately complete or cause to be completed, all Contract work, surety agrees that damage will be sustained by the City of Vallejo, and that it is and will be impracticable to determine the actual amount of damage by reason of such acts; and the Contractor and surety agree that in addition to any other damages City of Vallejo may sustain and may be recovered pursuant to these Contract Documents, including but not limited to, other liquidated damages for delay, or actual damages, the sum of TWO THOUSAND DOLLARS (\$2000.00) is a reasonable amount to be charged as liquidated damages for each day surety fails or refuses to complete or cause to be completed, all Contract work, and it is therefore agreed that the Contractor and surety will pay to the City of Vallejo this sum, for each and every calendar day surety fails or refuses to complete or cause to be completed, the Contract work; and the Contractor and surety further agree that the City of Vallejo may deduct and retain the amount thereof from any monies due the Contractor

under the Contract.

If the Contractor's control over the work is terminated as provided above, the Contractor is not entitled to receive any portion of the amount to be paid under the Contract until it is fully completed. After completion, if the unpaid balance exceeds the sum of the amount expended by the City of Vallejo in finishing the work, plus all damages sustained, or to be sustained, by the City of Vallejo, plus any unpaid claims on account of labor, materials, tools, equipment, or supplies contracted for by the Contractor for the work herein contemplated, the excess not otherwise required by these Contract Documents to be retained shall be paid the Contractor. If the sum so expended exceeds the unpaid balance, the Contractor and Contractor's surety are liable to the City of Vallejo for the amount of such excess. If the surety completes the Contract work as provided above, such surety shall be subrogated to money due under the Contract, and to money which shall become due in the course of completion by the surety. However, Contractor and surety agree that any subrogation rights of surety are subordinate to and inferior to rights of City of Vallejo.

The City of Vallejo reserves the right to terminate the work for its convenience upon written notice to Contractor. In such event, the Contractor shall be paid its reasonable costs for that portion of the work performed to the date of termination, reasonable costs associated with demobilization, plus fifteen percent (15%) of all such costs for overhead and profit.

#### 8-1.09 RIGHT OF WAY DELAYS

If, through the failure of the City of Vallejo to acquire or clear right of way, the Contractor sustains loss which could not have been avoided by the judicious handling of forces, equipment and plant, there shall be paid to the Contractor that amount that the Engineer may find to be a fair and reasonable compensation for that part of the Contractor's actual loss, that, in the opinion of the Engineer, was unavoidable, determined as follows:

Compensation for idle time of equipment will be determined in the same manner as determinations are made for equipment used in the performance of extra work paid for on a force account basis, as provided in Section 9-1.03A(3), "Equipment Rental," with the following exceptions:

- A. The right of way delay factor for each classification of equipment shown in the State Department of Transportation publication entitled Labor Surcharge And Equipment Rental Rates, which is a part of the Contract, will be applied to that equipment rental rate.
- B. The time for which the compensation will be paid will be the actual normal working time during which the delay condition exists, but in no case will exceed 8 hours in any one day.
- C. The days for which compensation will be paid will be the calendar days, excluding Saturdays, Sundays and legal holidays, during the existence of the delay, except that when rental of equipment is paid for under the provisions in Section 9-1.03A

(3b), "Equipment not on the Work," no payment will be made for right of way delays in conformance with the provisions in this Section 8-1.09.

Actual loss shall be understood to include no items of expense other than idle time of equipment and necessary payments for idle time of workers, cost of extra moving of equipment and cost of longer hauls. Compensation for idle time of equipment will be determined as provided in this Section 8-1.09 and compensation for idle time of workers will be determined as provided in Section 9-1.03A(1), "Labor," and no markup will be added in either case for overhead and profit. The cost of extra moving of equipment and the cost of longer hauls will be paid for as extra work as provided in Section 4-1.03D.

If performance of the Contractor's work is delayed as the result of the failure of the City of Vallejo to acquire or clear right of way, an extension of time determined pursuant to the provisions in Section 8-1.07, "Liquidated Damages," will be granted.

#### 8-1.10 UTILITY AND NON-HIGHWAY FACILITIES

It is anticipated that some or all of the utility and other non-highway facilities, both above ground and below ground, that are required to be rearranged (as used herein, rearrangement includes installation, relocation, alteration or removal) as a part of the highway improvement will be rearranged in advance of construction operations. Where it is not anticipated that the rearrangement will be performed prior to construction, or where the rearrangement must be coordinated with the Contractor's construction operations, the existing facilities that are to be rearranged will be indicated on the plans or in the special provisions. Where a rearrangement is indicated on the plans or in the special provisions, the Contractor will have no liability for the costs of performing the work involved in the rearrangement.

The right is reserved to the City of Vallejo and the owners of facilities, or their authorized agents, to enter upon the highway right of way for the purpose of making those changes that are necessary for the rearrangement of their facilities or for making necessary connections or repairs to their properties. The Contractor shall cooperate with forces engaged in this work and shall conduct operations in such a manner as to avoid any unnecessary delay or hindrance to the work being performed by the other forces. Wherever necessary, the work of the Contractor shall be coordinated with the rearrangement of utility or other non-highway facilities, and the Contractor shall make arrangements with the owner of those facilities for the coordination of the work.

Attention is directed to the possible existence of underground facilities and utilities not indicated in the Contract Documents and to the possibility that utilities may be in a location different from that which is indicated in the Contract Documents. The Contractor shall ascertain the exact location of all utilities, the location of their service laterals or other appurtenances, and of existing service lateral or appurtenances of any other underground facilities prior to doing work.

If the Contractor cannot locate an underground facility or utility whose presence is indicated in the Contract Documents after a diligent search and investigation, the

Contractor shall immediately so notify the Engineer in writing. If the facility for which the notice is given is in a substantially different location from that indicated on the plans or in the special provisions, the additional cost of locating the facility will be paid for as extra work as provided in Section 4-1.03D.

If the Contractor discovers utilities not indicated in the Contract Documents, the Contractor shall immediately give the Engineer and the Utility Company written notification of the existence of those facilities. The utilities shall be located and protected from damage as directed by the Engineer, and the cost of that work will be paid for as extra work as provided in Section 4-1.03D. The Contractor shall, if directed by the Engineer, repair any damage which may occur to the utilities. The cost of that repair work, not due to the failure of the Contractor to exercise reasonable care or to comply with the terms of the Contract Documents, will be paid for as extra work as provided in Section 4-1.03D. Damage due to the Contractor's failure to exercise reasonable care or comply with the Contract Documents shall be repaired at the Contractor's cost and expense.

Where it is determined by the Engineer that the rearrangement of an underground facility is essential in order to accommodate the highway improvement and the plans and Specifications do not provide that the facility is to be rearranged, the Engineer will provide for the rearrangement of the facility by other forces or the rearrangement shall be performed by the Contractor and will be paid for as extra work as provided in Section 4-1.03D.

When ordered by the Engineer in writing, the Contractor shall rearrange any utility or other non-highway facility necessary to be rearranged as a part of the highway improvement, and that work will be paid for as extra work as provided in Section 4-1.03D.

Should the Contractor desire to have any rearrangement made in any utility facility, or other improvement, for the Contractor's convenience in order to facilitate the Contractor's construction operations, which rearrangement is in addition to, or different from, the rearrangements indicated on the plans or in the special provisions, the Contractor shall make whatever arrangements are necessary with the owners of the utility or other non-highway facility for the rearrangement and bear all expenses in connection therewith.

The Contractor shall immediately notify the Engineer of any delays to the Contractor's operations as a direct result of underground main or trunk line facilities which were not indicated on the plans or in the special provisions or were located in a position substantially different from that indicated on the plans or in the special provisions, or as a direct result of utility or other non-highway facilities not being rearranged as herein provided (other than delays in connection with rearrangements made to facilitate the Contractor's construction operations or delays due to a strike or labor dispute). These delays will be considered right of way delays within the meaning of Section 8-1.09, "Right of Way Delays," and compensation for the delay will be determined in conformance with the provisions in Section 8-1.09. The Contractor shall be entitled to no other compensation for that delay.

Any delays to the Contractor's operations as a direct result of utility or other non-highway

facilities not being rearranged as provided in this Section 8-1.10, due to a strike or labor dispute, will entitle the Contractor to an extension of time as provided in Section 8-1.07, "Liquidated Damages." The Contractor shall be entitled to no other compensation for that delay.

#### 8-1.11 TERMINATION OF CONTRACT

The Contract may be terminated by the Director when termination is authorized by Section 7-1.125, "Legal Actions Against the City of Vallejo," Section 7-1.165, "Damage by Storm, Flood, Tsunami or Earthquake," or by other provisions of the Contract which authorize termination. The City of Vallejo also reserves the right to terminate the Contract at any time upon a determination by the Director that termination of the Contract is in the best interest of the City of Vallejo.

If the Director elects to terminate the Contract, the termination of the Contract and the total compensation payable to the Contractor shall be governed by the following:

- A. The Engineer will issue the Contractor a written notice signed by the Director, specifying that the Contract is to be terminated. Upon receipt of the written notice, the Contractor will be relieved of further responsibility for damage to the work (excluding materials) as specified in Section 7-1.16, "Contractor's Responsibility for the Work and Materials," and, except as otherwise directed in writing by the Engineer, the Contractor shall:
  - 1. Stop all work under the Contract except that specifically directed to be completed prior to acceptance.
  - 2. Perform work the Engineer deems necessary to secure the project for termination.
  - 3. Remove equipment and plant from the site of the work.
  - 4. Take action that is necessary to protect materials from damage.
  - 5. Notify all subcontractors and suppliers that the Contract is being terminated and that their Contracts or orders are not to be further performed unless otherwise authorized in writing by the Engineer.
  - 6. Provide the Engineer with an inventory list of all materials previously produced, purchased or ordered from suppliers for use in the work and not yet used in the work, including its storage location, and such other information as the Engineer may request.
  - 7. Dispose of materials not yet used in the work as directed by the Engineer. It shall be the Contractor's responsibility to provide the City of Vallejo with good title to all materials purchased by the City of Vallejo hereunder, including materials for which partial payment has been made as provided in

Section 9-1.06, "Partial Payments," and with bills of sale or other documents of title for those materials.

8. Subject to the prior written acceptance of the Engineer, settle all outstanding liabilities and all claims arising out of subcontracts or orders for materials terminated hereunder. To the extent directed by the Engineer, the Contractor shall assign to the City of Vallejo all the right, title and interest of the Contractor under subcontracts or orders for materials terminated hereunder.
  9. Furnish the Engineer with the documentation required to be furnished by the Contractor under the provisions of the Contract including, on projects as to which Federal funds are involved, all documentation required under the Federal requirements included in the Contract.
  10. Take other actions directed by the Engineer.
- B. Acceptance of the Contract as hereinafter specified shall not relieve the Contractor of responsibility for damage to materials. The Contractor shall continue to be responsible for damage to materials after issuance of the Notice of Termination, except as follows:
1. The Contractor's responsibility for damage to materials for which partial payment has been made as provided in Section 9-1.06, "Partial Payments," and for materials furnished by the City of Vallejo for use in the work and unused shall terminate when the Engineer certifies that those materials have been stored in the manner and at the locations the Engineer has directed.
  2. The Contractor's responsibility for damage to materials purchased by the City of Vallejo subsequent to the issuance of the notice that the Contract is to be terminated shall terminate when title and delivery of those materials has been taken by the City of Vallejo.

When the Engineer determines that the Contractor has completed the work under the Contract directed to be completed prior to termination and such other work as may have been ordered to secure the project for termination, the Engineer will recommend that the Director formally accept the Contract.

- C. Termination of the Contract shall not relieve the Contractor or surety of their obligation for any claims arising out of the work performed.
- D. The total compensation to be paid to the Contractor shall be determined by the Engineer on the basis of the following:
1. The reasonable cost to the Contractor, without profit, for all work performed under the Contract, including mobilization, demobilization and work done to

secure the project for termination. In determining the reasonable cost, deductions will be made for the cost of materials to be retained by the Contractor, amounts realized by the sale of materials, and for other appropriate credits against the cost of the work. Deductions will also be made, when the Contract is terminated under the authority of Section 7-1.165, "Damage by Storm, Flood, Tsunami or Earthquake," for the cost of materials damaged by the "occurrence."

When, in the opinion of the Engineer, the cost of a Contract item of work is excessively high due to costs incurred to remedy or replace defective or rejected work, the reasonable cost to be allowed will be the estimated reasonable cost of performing that work in compliance with the requirements of the Contract Documents and the excessive actual cost shall be disallowed.

2. A reasonable allowance for profit on the cost of the work performed as determined under Subsection (1), provided the Contractor establishes to the satisfaction of the Engineer that it is reasonably probable that the Contractor would have made a profit had the Contract been completed and provided further, that the profit allowed shall in no event exceed 4 percent of the cost.
3. The reasonable cost to the Contractor of handling material returned to the vendor, delivered to the City of Vallejo or otherwise disposed of as directed by the Engineer.
4. A reasonable allowance for the Contractor's administrative costs in determining the amount payable due to termination of the Contract.

All records of the Contractor and the Contractor's subcontractors, necessary to determine compensation in conformance with the provisions in this Section 8-1.11, shall be open to inspection or audit by representatives of the City of Vallejo at all times after issuance of the notice that the Contract is to be terminated and for a period of 3 years, thereafter, and those records shall be retained for that period.

After acceptance of the work by the Director, the Engineer may make payments on the basis of interim estimates pending issuance of the Final Estimate in conformance with the provisions in Section 9-1.07B, "Final Payment and Claims," when, in the Engineer's opinion, the amount thus paid, together with all amounts previously paid or allowed, will not result in total compensation in excess of that to which the Contractor will be entitled. All payments, including payment upon the Final Estimate shall be subject to deduction for prior payments and amounts, if any, to be kept or retained under the provisions of the Contract.





## SECTION 9: MEASUREMENT AND PAYMENT

### 9-1.01 MEASUREMENT OF QUANTITIES

All work to be paid for at a Contract price per unit of measurement will be measured by the Engineer in accordance with the International System of Units (SI) {United States Standard Measures. A ton shall consist of 2,000 pounds avoirdupois}.

Unless shipped by rail, material paid for by mass shall be weighed on scales furnished by and at the expense of the Contractor or on other sealed scales regularly inspected by the Division of Measurement Standards or its designated representative.

Weighing, measuring and metering devices used to measure the quantity of materials used in the work shall be suitable for the purpose intended and shall conform to the tolerances and Specifications as outlined in Title 4, Chapter 9 of the California Code of Regulations, the provisions of the California Business and Professions Code, Division 5, and these Specifications. Devices not Type-approved by the Division of Measurement Standards shall be Type-approved in conformance with the requirements in California Test 109.

Elements of the material plant controller which affect the accuracy or delivery of data shall be made available for the application of security seals. These devices will be inspected and adjusting elements sealed prior to the first production of materials for the Contract. The security seals will be furnished by the Engineer. Material production shall cease when alteration, disconnection or otherwise manipulation of the security seals occur, and production shall not resume until the device is inspected and resealed by the Engineer.

Weighing, measuring or metering devices used to determine the quantity of materials to be paid for will be considered to be "commercial devices" and shall be sealed by the Division of Measurement Standards or its authorized representative as often as the Engineer may deem necessary. The installation of all portable vehicle scales must be accepted by the Engineer prior to sealing.

Vehicle scales shall be of sufficient size to permit the entire vehicle or combination of vehicles to rest on the scale deck while being weighed. Combination vehicles may be weighed as separate units provided they are disconnected while being weighed. The maximum concentrated load shall not exceed the manufacturer's designed sectional capacity of the scale.

Weighing, measuring or metering devices required by these Specifications for the purpose of proportioning a material or product will be considered to be "non-commercial devices" and shall be tested and accepted in conformance with the requirements in California Test 109. This testing shall be done by one of the following, in the presence of the Engineer, as often as the Engineer deems necessary:

A. A County Sealer of Weights and Measures;

- B. A Scale Service Agency; or
- C. A Division of Measurement Standards Official.

The Contractor shall notify the Engineer at least 24 hours in advance of testing the device.

Undersupports for scale bearing points shall be constructed of Portland cement concrete produced from commercial quality aggregates and cement, which contains not less than 275 kg of cement per cubic meter {463 pounds of cement per cubic yard}. Undersupports shall be constructed in a manner to prevent any shifting or tilting of the support and shall have a minimum height of 350 mm {14 inches} above ground line. The footings shall have a minimum depth of 150 mm {6 inches} below the ground line. The bearing surface of the footings shall have a minimum width of 760 mm {30 inches} and shall be of sufficient area so the pressure does not exceed 200 kPa {4,000 pounds per square foot}. Adequate drainage shall be provided to prevent saturation of the ground under the scale. Scale bulkheads shall be of adequate material and strength to resist displacement. If timber bulkheads are used, the minimum cross section shall be 200 mm x 200 mm {8 inches x 8 inches}. Wedges shall not be used to shim the supports. If shimming is necessary, the shimming shall be done by securely attached metal shims, or by grouting. Shimming shall not exceed 75 mm {3 inches}. The approach ramps shall be level with the scale deck for a distance of not less than one-half the length of the scale deck. The mechanical indicating elements shall be installed level and plumb and shall be rigidly mounted upon a concrete foundation.

The lever system and mechanical indicating elements of hopper scales shall be rigidly attached to non-yielding supports in such a manner as to prevent any loss in weight due to bending and distortion of the supports.

When a multiple beam type scale is used in proportioning materials, an over and under indicator shall be provided which will give positive visible evidence of the amount of any over and under weight. The indicator shall be so designed that the indicator will operate during the addition of the last 90 kg {200 pounds} of any weighing. The over-travel of the indicator shall be at least one-third of the loading travel. Indicators shall be enclosed against moisture and dust.

Over and under dials, and other indicators for weighing and measuring systems used in proportioning materials shall be grouped so that the smallest increment for each indicator can be accurately read from the point at which the proportioning operation is controlled.

The Contractor shall bear the expense of all service fees for testing and approving of "non-commercial devices." The cost of the equipment, labor and materials furnished by the Contractor to assist in the testing of weighing, measuring or metering devices will be considered as included in the Contract prices paid for the various Contract items of work requiring the weighing, measuring or metering and no separate payment will be made therefor.

Whenever pay quantities of material are determined by weighing, the scales shall be operated by a weighmaster licensed in conformance with the requirements in the

California Business and Professions Code, Division 5, Chapter 7. The Contractor shall furnish a Public weighmasters certificate or certified daily summary weigh sheets. A representative of the City of Vallejo may, at the discretion of the Engineer, be present to witness the weighing and to check and compile the daily record of the scale weights.

When required by the Engineer, the operator of each vehicle weighed shall obtain a weight or load slip from the weigher and deliver that slip to the Engineer at the point of delivery of the material.

If material is shipped by rail, the car mass will be accepted provided that actual mass of material only will be paid for and not minimum car mass used for assessing freight tariff, and provided further that car mass will not be acceptable for material to be passed through mixing plants.

Vehicles used to haul material being paid for by mass shall be weighed empty daily and at additional times as the Engineer may direct. Each vehicle shall bear a plainly legible identification mark. Vehicles may from time to time be required by the Engineer to have the mass of the material to be paid for verified by weighing the empty and loaded vehicle on such other scales as the Engineer may designate.

Materials which are specified for measurement by volume, i.e. cubic yard, cubic foot, etc., shall be measured completed as-constructed. Whenever earthwork is to be measured by volume, it shall be measured "in-situ," unless otherwise specified in the Contract documents. Materials "measured in the vehicle" shall be hauled in vehicles of such type and size that the actual contents may be readily and accurately determined. Unless all vehicles are of uniform capacity, each vehicle must bear a plainly legible identification mark indicating its water level capacity. Vehicles shall be loaded to at least their water level capacity, and all loads shall be leveled when the vehicles arrive at the point of delivery. Loads hauled in vehicles not meeting the above requirements or loads of a quantity less than the capacity of the vehicle, measured after being leveled off as above provided, will be subject to rejection, and no compensation will be allowed for that material.

When material is to be measured and paid for on a volume basis and it is impractical to determine the volume by the specified method of measurement, or when requested by the Contractor in writing and accepted by the Engineer in writing, the material will be weighed in accordance with the requirements specified for mass measurement and the mass will be converted to volume measurement for payment purposes. Factors for conversion from mass measurement to volume measurement will be determined by the Engineer and shall be agreed to by the Contractor before that method of measurement of pay quantities will be adopted.

Quantities of material wasted or disposed of in a manner not called for under the Contract; or rejected loads of material, including material rejected after it has been placed by reason of the failure of the Contractor to conform to the provisions of the Contract; or material not unloaded from the transporting vehicle; or material placed outside of the lines indicated on the plans or established by the Engineer; or material remaining on hand after

completion of the work will not be paid for, and those quantities will be deducted from the final total quantities. No compensation will be allowed for hauling and disposing of rejected material.

The mass of all aggregate or other roadway material which is to be paid for on a mass basis, except imported borrow, imported topsoil, straw, fiber, aggregate sub bases, aggregate bases or aggregate for cement treated bases, will be determined by deducting from the mass of material, the mass of water in the material at the time of weighing in excess of 3 percent of the dry mass of the material. When imported borrow, imported topsoil or aggregate subbase is being paid for on a mass basis, the mass to be paid for will be determined by deducting from the mass of the material, the mass of water in the material at the time of weighing in excess of 6 percent of the dry mass of the material. When straw is being paid for on a mass basis, the mass to be paid for will be determined by deducting from the mass of straw, the mass of water in the straw at the time of weighing in excess of 15 percent of the dry mass of the straw. When fiber is being paid for on a mass basis, the mass of water in the fiber at the time of weighing shall not exceed 15 percent of the dry mass of the fiber. No deduction will be made for the mass of water in fiber. The percentage of water in the material shall be determined by California Test 226. The mass of aggregate base and aggregate for cement treated bases which are to be paid for on a mass basis, will be determined as provided in Section 26, "Aggregate Bases," and Section 27, "Cement Treated Bases," respectively.

The mass of water deducted as provided in this Section 9-1.01 will not be paid for.

Full compensation for all expense involved in conforming to the requirements specified in this Section 9-1.01 shall be considered as included in the unit prices paid for the materials being measured or weighed and no additional compensation will be allowed therefor.

#### 9-1.015 FINAL PAY ITEMS

When an item of work is designated as (F) or (S-F) in the Engineer's Estimate, the estimated quantity for that item of work shall be the final pay quantity, unless the dimensions of any portion of that item are revised by the Engineer, or the item or any portion of the item is eliminated. If the dimensions of any portion of the item are revised, and the revisions result in an increase or decrease in the estimated quantity of that item of work, the final pay quantity for the item will be revised in the amount represented by the changes in the dimensions, except as otherwise provided for minor structures in Section 5.1-1.22, "Measurement." If a final pay item is eliminated, the estimated quantity for the item will be eliminated. If a portion of a final pay item is eliminated, the final pay quantity will be revised in the amount represented by the eliminated portion of the item of work.

The estimated quantity for each item of work designated as (F) or (S-F) in the Engineer's Estimate shall be considered as approximate only, and no guarantee is made that the quantity which can be determined by computations, based on the details and dimensions shown on the plans, will equal the estimated quantity. No allowance will be made in the event that the quantity based on computations does not equal the estimated quantity.

In case of discrepancy between the quantity shown in the Engineer's Estimate for a final pay item and the quantity or summation of quantities for the same item shown on the plans, payment will be based on the quantity shown in the Engineer's Estimate.

Under no circumstances will Contractor be entitled to payment for any final pay quantity that is greater than the unit quantity price for the final pay quantity item set forth in the proposal form.

#### 9-1.02 SCOPE OF PAYMENT

The Contractor shall accept the compensation provided in the Contract as full payment for furnishing all labor, materials, tools, equipment, and incidentals necessary to the completed work and for performing all work required under the Contract; also for loss or damage arising from the nature of the work, or from the action of the elements, or from any unforeseen difficulties which may be encountered during the prosecution of the work until the acceptance by the Director and for all risks of every description connected with the prosecution of the work, also for all expenses incurred in consequence of the suspension or discontinuance of the work as provided in the Contract; and for completing the work according to the Contract Documents.

No compensation will be made in any case for loss of anticipated profits.

#### 9-1.03 FORCE ACCOUNT PAYMENT

When extra work is to be paid for on a force account basis, the labor, materials and equipment used in the performance of that work shall be subject to the review and acceptance of the Engineer and compensation will be determined as follows:

##### 9-1.03A WORK PERFORMED BY CONTRACTOR

The Contractor will be paid the direct costs for labor, materials and equipment used in performing the work determined as hereinafter provided in Sections 9-1.03A(1), "Labor," 9-1.03A(2), "Materials," and 9-1.03A(3), "Equipment Rental," except where agreement has been reached to pay in conformance with the provisions in Section 9-1.03B, "Work Performed by Special Forces or Other Special Services."

To the total of the direct costs computed as provided in Sections 9-1.03A(1), "Labor," 9-1.03A(2), "Materials," and 9-1.03A(3), "Equipment Rental," there will be added a markup of 33 percent to the cost of labor, 15 percent to the cost of materials and 15 percent to the equipment rental.

The above markups shall constitute full compensation for all overhead costs which shall be deemed to include all items of expense not specifically designated as cost or equipment rental in Sections 9-1.03A(1), "Labor," 9-1.03A(2), "Materials," and 9-1.03A(3), "Equipment Rental." The total payment made as provided above shall be deemed to be the actual cost of the work and shall constitute full compensation therefor.

When extra work to be paid for on a force account basis is performed by a subcontractor, approved in conformance with the provisions in Section 8-1.01, "Subcontracting," an additional markup of 5 percent will be added to the total cost of that extra work including all markups specified in this Section 9-1.03A. The additional 5 percent markup shall reimburse the Contractor for additional administrative costs, and no other additional payment will be made by reason of performance of the extra work by a subcontractor.

#### 9-1.03A(1) LABOR

The Contractor will be paid the cost of labor for the workers (including foremen when authorized by the Engineer), used in the actual and direct performance of the work. The cost of labor, whether the employer is the Contractor, subcontractor or other forces, will be the sum of the following:

##### 9-1.03A(1A) ACTUAL WAGES

The actual wages paid shall include any employer payments to or on behalf of the workers for health and welfare, pension, vacation and similar purposes.

##### 9-1.03A(1B) LABOR SURCHARGE

To the actual wages, as defined in Section 9-1.03A(1a), will be added a labor surcharge set forth in the Department of Transportation publication entitled Labor Surcharge And Equipment Rental Rates, which is in effect on the date upon which the work is accomplished. The labor surcharge shall constitute full compensation for all payments imposed by State and Federal laws and for all other payments made to, or on behalf of, the workers, other than actual wages as defined in Section 9-1.03A(1A) and subsistence and travel allowance as specified in Section 9-1.03A(1C).

##### 9-1.03A(1C) SUBSISTENCE AND TRAVEL ALLOWANCE

The actual subsistence and travel allowance paid to the workers.

#### 9-1.03A(2) MATERIALS

The City of Vallejo reserves the right to furnish any materials it deems advisable, and the Contractor shall have no claims for costs and markup on those materials.

Only materials furnished by the Contractor and necessarily used in the performance of the work will be paid for. The cost of those materials will be the cost to the purchaser, whether Contractor, subcontractor or other forces, from the supplier thereof, except as the following are applicable:

##### 9-1.03A(2A)

If a cash or trade discount by the actual supplier is offered or available to the purchaser, it shall be credited to the City of Vallejo notwithstanding the fact that the discount may not have been taken.

#### 9-1.03A(2B)

If materials are procured by the purchaser by any method which is not a direct purchase from and a direct billing by the actual supplier to the purchaser, the cost of those materials shall be deemed to be the price paid to the actual supplier as determined by the Engineer plus the actual costs, if any, incurred in the handling of the materials.

#### 9-1.03A(2C)

If the materials are obtained from a supply or source owned wholly or in part by the purchaser, the cost of those materials shall not exceed the price paid by the purchaser for similar materials furnished from that source on Contract items or the current wholesale price for those materials delivered to the jobsite, whichever price is lower.

#### 9-1.03A(2D)

If the cost of the materials is, in the opinion of the Engineer, excessive, then the cost of the material shall be deemed to be the lowest current wholesale price at which the materials were available in the quantities concerned delivered to the jobsite, less any discounts as provided in Section 9-1.03A(2a).

#### 9-1.03A(2E)

If the Contractor does not furnish satisfactory evidence of the cost of the materials from the actual supplier thereof within 60 days after the date of delivery of the material or within 15 days after acceptance of the Contract, whichever occurs first, the City of Vallejo reserves the right to establish the cost of the materials at the lowest current wholesale prices at which the materials were available in the quantities concerned delivered to the location of the work, less any discounts as provided in Section 9-1.03A(2a).

#### 9-1.03A(3) EQUIPMENT RENTAL

The Contractor will be paid for the use of equipment at the rental rates listed for that equipment in the Department of Transportation publication entitled Labor Surcharge And Equipment Rental Rates, which is in effect on the date upon which the work is accomplished and which is a part of the Contract, regardless of ownership and any rental or other agreement, if they may exist, for the use of that equipment entered into by the Contractor, except that for those pieces of equipment with a rental rate of \$10.00 per hour or less as listed in the Labor Surcharge And Equipment Rental Rates publication and which are rented from a local equipment agency, other than Contractor owned, the Contractor will be paid at the hourly or daily rate shown on the rental agency invoice or agreement for the time used on force account work as provided in Section 9-1.03A(3a), "Equipment on the Work." If a minimum equipment rental amount is required by the local equipment rental agency, the actual amount charged will be paid to the Contractor.

Equipment owned by the Contractor and already on the job site shall only be paid for actual hours of usage as documented on daily extra work reports. Equipment owned by

the Contractor, required to perform force account work, and not already on the job site shall only be paid for actual hours of usage as documented on daily extra work reports and the cost of mobilization to bring to the job site. The Engineer shall determine if equipment not on the job site is required to be mobilized to perform extra work.

If it is deemed necessary by the Engineer to use equipment not listed in the Labor Surcharge And Equipment Rental Rates publication, a suitable rental rate for that equipment will be established by the Engineer. The Contractor shall furnish all cost data which might assist the Engineer in the establishment of the rental rate. If the rental rate established by the Engineer is \$10.00 per hour or less, the provisions above concerning rental of equipment from a local equipment agency shall apply.

The rental rates paid as above provided shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance and all incidentals.

Operators of rented equipment will be paid for as provided in Section 9-1.03A(1), "Labor."

All equipment shall, in the opinion of the Engineer, be in good working condition and suitable for the purpose for which the equipment is to be used.

Unless otherwise specified, manufacturer's ratings and manufacturer approved modifications shall be used to classify equipment for the determination of applicable rental rates. Equipment which has no direct power unit shall be powered by a unit of at least the minimum rating recommended by the manufacturer.

Individual pieces of equipment or tools not listed in the Labor Surcharge and Equipment Rental Rate publication and having a replacement value of \$500 or less, whether or not consumed by use, shall be considered to be small tools and no payment will be made therefor.

Rental time will not be allowed while equipment is inoperative due to breakdowns.

#### 9-1.03A(3A) EQUIPMENT ON THE WORK

The rental time to be paid for equipment on the work shall be the time the equipment is in operation on the extra work being performed, and in addition, shall include the time required to move the equipment to the location of the extra work and return the equipment to the original location or to another location requiring no more time than that required to return the equipment to its original location, except that moving time will not be paid for if the equipment is used at the site of the extra work on other than the extra work. Loading and transporting costs will be allowed, in lieu of moving time, when the equipment is moved by means other than its own power, except that no payment will be made if the equipment is used at the site of the extra work on other than the extra work.

The following shall be used in computing the rental time of equipment on the work:



- A. When hourly rates are listed, less than 30 minutes of operation shall be considered to be 0.5-hour of operation.
- B. When daily rates are listed, less than 4 hours of operation shall be considered to be 0.5-day of operation.

#### 9-1.03A(3B) EQUIPMENT NOT ON THE WORK

When extra work, other than work specifically designated as extra work in the plans and specifications, is to be paid for on a Force Account basis and the Engineer determines that such extra work requires the Contractor to move on to the work equipment which could not reasonably have been expected to be needed in the performance of the contract, the Engineer may authorize payment for the use of such equipment at equipment rental rates in excess of those listed as applicable for the use of such equipment subject to the following additional conditions:

- A. The Engineer shall specifically approve the necessity for the use of particular equipment on such work.
- B. The Contractor shall establish to the satisfaction of the Engineer that such equipment cannot be obtained from his/her normal equipment source or sources and those of his/her subcontractors.
- C. The Contractor shall establish to the satisfaction of the Engineer that the proposed equipment rental rate for such equipment from his/her proposed source is reasonable and appropriate for the expected period of use.
- D. The Engineer shall approve the equipment source and the equipment rental rate to be paid by the City of Vallejo before the Contractor begins work involving the use of said equipment.

For the use of equipment moved in on the work and used exclusively for extra work paid for on a force account basis, the Contractor will be paid the rental rates listed in the Department of Transportation publication entitled Labor Surcharge And Equipment Rental Rates, which is in effect on the date upon which the work is accomplished and which is a part of the Contract, or determined as provided in Section 9-1.03A(3) and for the cost of transporting the equipment to the location of the work and its return to its original location, all in accordance with the following provisions:

- A. The original location of the equipment to be hauled to the location of the work shall be agreed to by the Engineer in advance.
- B. The City of Vallejo will pay the costs of loading and unloading the equipment.
- C. The cost of transporting equipment in low bed trailers shall not exceed the hourly rates charged by established haulers.

- D. The rental period shall begin at the time the equipment is unloaded at the site of the extra work, shall include each hour that the equipment is actually used at the site of the extra work, excluding Saturdays, Sundays and legal holidays unless the equipment is used to perform the extra work on those days, and shall terminate at the end of the day on which the Engineer directs the Contractor to discontinue the use of the equipment. The rental time to be paid for equipment not on the work shall be the time the equipment is actually in operation on the extra work being performed and in accordance with the following:

The hours to be paid for equipment which is operated less than 8 hours due to breakdowns, shall not exceed 8 hours less the number of hours the equipment is inoperative due to breakdowns.

When hourly rates are listed, less than 30 minutes of operation shall be considered to be 0.5-hour of operation.

When daily rates are listed, less than 4 hours of operation shall be considered to be 4 hours of operation. No payment will be made if the equipment is not used. If the equipment is used more than 4 hours of operation, payment will be made for one day.

- E. Should the Contractor desire the return of the equipment to a location other than its original location, the City of Vallejo will pay the cost of transportation in accordance with the above provisions, provided the payment shall not exceed the cost of moving the equipment to the work.
- F. Payment for transporting, and loading and unloading equipment, as above provided, will not be made if the equipment is used on the work in any other way than upon extra work paid for on a force account basis.

#### 9-1.03A(3C) OWNER-OPERATED EQUIPMENT

When owner-operated equipment is used to perform extra work to be paid for on a force account basis, the Contractor will be paid for the equipment and operator, as follows:

- A. Payment for the equipment will be made in conformance with the provisions in Section 9-1.03A(3), "Equipment Rental."
- B. Payment for the cost of labor and subsistence or travel allowance will be made at the rates paid by the Contractor to other workers operating similar equipment already on the project or, in the absence of other workers operating similar equipment, at the rates for that labor established by collective bargaining agreements for the type of workers and location of the work, whether or not the owner-operator is actually covered by an agreement. A labor surcharge will be added to the cost of labor described herein, in conformance with the provisions in Section 9-1.03A(lb), "Labor Surcharge."

- C. To the direct cost of equipment rental and labor, computed as provided herein, will be added the markups for equipment rental and labor as provided in Section 9-1.03A, "Work Performed by Contractor."

#### 9-1.03A(3D) DUMP TRUCK RENTAL

Dump truck rental shall conform to the provisions in Sections 9-1.03A(3), "Equipment Rental," 9-1.03A(3a), "Equipment on the Work," and 9-1.03A(3b), "Equipment not on the Work," except as follows:

Fully maintained and operated rental dump trucks used in the performance of extra work paid for on a force account basis will be paid for at the same hourly rate paid by the Contractor for use of fully maintained and operated rental dump trucks in performing Contract item work.

In the absence of Contract item work requiring dump truck rental, the Engineer will establish an hourly rental rate to be paid. The Contractor shall provide the Engineer with complete information on the hourly rental rates available for rental of fully maintained and operated dump trucks.

The provisions in Section 9-1.03A(1), "Labor," shall not apply to operators of rented dump trucks.

The rental rates listed for dump trucks in the Department of Transportation publication entitled Labor Surcharge And Equipment Rental Rates shall not apply.

To the total of the rental costs for fully maintained and operated dump trucks, including labor, there will be added a markup of 15 percent. An additional markup of 5 percent will be added by reason of performance of the work by a subcontractor. No separate markup will be made for labor.

The provisions in Section 9-1.03A(3c), "Owner-Operated Equipment," shall not apply to dump truck rentals.

#### 9-1.03B WORK PERFORMED BY SPECIAL FORCES OR OTHER SPECIAL SERVICES

When the Engineer and the Contractor, by agreement, determine that a special service or an item of extra work cannot be performed by the forces of the Contractor or those of any of the Contractor's subcontractors, that service or extra work item may be performed by a specialist.

#### 9-1.03C RECORDS

The Contractor and all subcontractors shall maintain records in such a manner as to provide a clear distinction between the direct costs of extra work paid and the costs of other operations.

From the above records, the Contractor shall furnish the Engineer completed daily extra work reports, either on forms furnished by the City of Vallejo or on computerized facsimiles of the City of Vallejo's forms acceptable to the Engineer, for each day's extra work to be paid for on a force account basis. The daily extra work reports shall itemize the materials used, and shall state the direct cost of labor and the charges for equipment rental, whether furnished by the Contractor, subcontractor or other forces, except for charges described in Section 9-1.03B, "Work Performed by Special Forces or Other Special Services." The daily extra work reports shall provide names, identifications, and classifications of all workers, the hourly rate of pay and hours worked, and also the size, type and identification number of equipment, and hours operated.

Material charges shall be substantiated by valid copies of vendor's invoices. The invoices shall be submitted with the daily extra work reports, or if not available, the invoices shall be submitted within 30 days after the submittal of the daily extra work report or 30 days after the date of delivery of the material, whichever occurs first. Contractor waives payment for material charges not substantiated by valid copies of vendor's invoices submitted within the times provided.

Daily extra work reports shall be signed by the Contractor or the Contractor's authorized representative, and shall be submitted to the City on the day the work is performed, or within 24 hours if authorized by the Engineer. Daily extra work reports shall be signed by the designated representative of the City to acknowledge the labor hours, materials, and equipment used to perform the work. Signature by the City's representative does not constitute approval for payment. All daily extra work reports are subject to review and approval by the Engineer for conformance to the Contract Documents prior to payment. The City reserves the right to make adjustments to the amount to be paid for extra work based upon daily extra work reports at any time prior to project acceptance, even if payment has been made under a progress payment. Contractor waives payment for that portion of Force Account work in which a daily extra work report has not been signed by the City's designated representative and/or submitted to the City within the time specified above.

The Engineer will compare the Engineer's records with the completed daily extra work reports furnished by the Contractor and make any necessary adjustments. When these daily extra work reports are agreed upon and signed by both parties, the reports shall become the basis of payment for the work performed, but shall not preclude subsequent adjustment based on a later audit by the City of Vallejo.

The Contractor's and all subcontractors' records pertaining to the Project shall be open to inspection or audit by representatives of the City of Vallejo, during the life of the Contract and for a period of not less than 3 years after the date of acceptance thereof, and the Contractor and all subcontractors shall retain those records for that period. Where payment for materials or labor is based on the cost thereof to forces other than the Contractor, the Contractor shall make every reasonable effort to ensure that the cost records of those other forces will be open to inspection and audit by representatives of the City of Vallejo on the same terms and conditions as the cost records of the Contractor. If an audit is to be commenced more than 60 days after the acceptance date of the

Contract, the Contractor will be given a reasonable notice of the time when the audit is to begin.

#### 9-1.03D PAYMENT

Payment as provided in Sections 9-1.03A, "Work Performed by Contractor," and 9-1.03B, "Work Performed by Special Forces or Other Special Services," shall constitute full compensation to the Contractor for performance of work paid for on a force account basis and no additional compensation will be allowed therefor. The payment will be made in conformance with the provisions in Section 9-1.06, "Partial Payments."

The Engineer's receipt of a proposed progress schedule and monthly updated progress schedules, all in strict compliance with these Contract Documents shall be conditions precedent to the Engineers acceptance of the Contractor's periodic pay requests and/or the City of Vallejo's obligation to pay Contractor.

#### 9-1.04 (BLANK)

#### 9-1.05 STOP NOTICES

The City of Vallejo, may at its option and at any time retain out of any amounts due the Contractor, sums sufficient to cover claims filed pursuant to Section 3179 et seq. of the Civil Code. In cases where the contractor chooses to Bond around the Stop Notice, the Bond shall be of a form approved by the City.

#### 9-1.06 PARTIAL PAYMENTS

The City of Vallejo, once in each month, shall cause an estimate in writing to be made by the Engineer. The estimate shall include the total amount of work done and acceptable materials furnished, provided the acceptable materials are listed as eligible for partial payment as materials in the special provisions and are furnished and delivered by the Contractor on the ground and not used or are furnished and stored for use on the Contract, if the storage is within the City of Vallejo and the Contractor furnishes evidence satisfactory to the Engineer that the materials are stored subject to or under the control of the City of Vallejo, to the time of the estimate, and the value thereof. The estimate shall also include any amounts payable for mobilization. Daily extra work reports furnished by the Contractor less than 5 calendar days, not including Saturdays, Sundays and legal holidays, prior to the preparation of the monthly progress estimate shall not be eligible for payment until the following month's estimate.

The amount of any material to be considered in making an estimate will in no case exceed the amount thereof which has been reported by the Contractor to the Engineer on City of Vallejo-furnished forms properly filled out and executed, including accompanying documentation as therein required, less the amount of the material incorporated in the work to the time of the estimate. Only materials to be incorporated in the work will be considered. The estimated value of the material established by the Engineer will in no case exceed the Contract price for the item of work for which the material is furnished.

Unless otherwise approved by the Engineer in writing, Contractor shall submit to Engineer on or before the tenth (10th) day of the month, an itemized application for payment for the cost of the work in permanent place, which has been completed in strict accordance with the Contract Documents as of the last day of the preceding month, less amounts previously paid. The application for payment shall be prepared in a form acceptable to Engineer, and shall contain itemized amounts in accordance with the Contract Documents. The applications for payment shall not include requests for payment on account of changes which have not been authorized by Change Orders, or for amounts Contractor does not intend to pay a subcontractor because of a dispute or other reason.

If requested by the City of Vallejo, an application for payment shall be accompanied by a summary showing payment that will be made to subcontractors covered by such application, and unconditional waivers and releases of claims and stop notices, from each subcontractor listed in the preceding application for payment covering sums disbursed pursuant to that preceding application for payment.

Contractor warrants that upon submittal of an application for payment, all work has been performed in strict compliance with the Contract Documents, and all work for which certificates of payment have been previously issued and payment has been received from City of Vallejo, shall be free and clear of all claims, stop notices, security interests, and encumbrances in favor of Contractor, subcontractors or other persons or firms entitled to make claims by reason of having provided labor, materials, or equipment related to the work.

Payment of all, or any part, of an application for payment may be withheld, a certificate of payment may be withheld, all or part of a previous certificate for payment may be nullified and that amount withheld from a current certificate for payment, or the City of Vallejo may withhold from payment, on account of any of the following:

Defective work not remedied;

Third-party claims against Contractor or City of Vallejo arising from the acts or omissions of Contractor or subcontractors;

Stop notices;

Failure of Contractor to make timely payments due to subcontractors for material or labor;

A reasonable doubt that the work can be completed for the balance of the Contract price then unpaid;

Damage to the City of Vallejo or others for which Contractor is responsible;

Reasonable evidence that the work cannot be completed within the Contract time, and the unpaid balance of the Contract price would not be adequate to complete the work and cover City of Vallejo's damages for the anticipated delay;

Failure of Contractor to maintain, update, and submit record documents;

Failure of Contractor to submit schedules or their updates as required by the Contract Documents;

Performance of the work by Contractor without properly processed shop drawings;

Liquidated damages assessed;

Any other failure of Contractor to perform its obligations under the Contract Documents.

By resolution of the City of Vallejo's City Council, a fund has been established, money appropriated in the current budget, and assigned to the account(s) which is/are the sole source(s) of funds available for payment of the Contract price. Contractor understands and agrees that Contractor will be paid only from this special fund and if for any reason this fund is not sufficient to pay Contractor, Contractor will not be entitled to payment. The availability of money in this fund, and City of Vallejo's ability to draw from this fund, are conditions precedent to City of Vallejo's obligation to make payments to Contractor.

Within thirty (30) days of receipt of an approved certificate for payment, properly executed by the Contractor, City of Vallejo's Engineer and Director, City of Vallejo agrees to pay Contractor, subject to all of the terms and conditions of these Contract Documents, an amount equal to ninety five percent (95%) of the sum of the following (less any amounts withheld as permitted by the Contract Documents):

Cost of the work in permanent place as of the end of the preceding month as set forth and approved on the certificate for payment; and

Less amounts previously paid.

#### 9-1.065 PAYMENT OF WITHHELD FUNDS

Upon the Contractor's request, the City of Vallejo will make payment of funds withheld from progress payments to ensure performance of the Contract if the Contractor deposits in escrow with the City of Vallejo, or with a bank acceptable to the City of Vallejo, securities equivalent to the amount withheld. The Contractor shall be beneficial owner of any securities substituted for moneys withheld and shall receive any interest thereon. Upon satisfactory completion of the Contract, the securities shall be returned to the Contractor.

Alternatively, upon the Contractor's request, the City of Vallejo will make payment of retentions earned directly to the escrow agent. The Contractor may direct the investment of the payments into securities, and the Contractor shall receive the interest earned on the investments upon the same terms provided for securities deposited by the Contractor. Upon satisfactory completion of the Contract, the Contractor shall receive from the escrow agent all securities, interest and payments received by the escrow agent from the City of Vallejo.

Alternatively, and subject to the acceptance by the City of Vallejo, the payment of retentions earned may be deposited directly with a person licensed under Division 6 (commencing with Section 17000) of the Financial Code as the escrow agent. Upon written request of an escrow agent that has not been approved by the City of Vallejo under subdivision (c) of Section 10263 of the Public Contract Code, the City of Vallejo will provide written notice to that escrow agent within 10 business days of receipt of the request indicating the reason or reasons for not approving that escrow agent. The payments will be deposited in a trust account with a Federally chartered bank or savings association within 24 hours of receipt by the escrow agent. The Contractor shall not place any retentions with the escrow agent in excess of the coverage provided to that escrow agent pursuant to subdivision (b) of Section 17314 of the Financial Code. In all respects not inconsistent with subdivision (c) of Section 10263 of the Public Contract Code, the remaining provisions of Section 10263 of the Public Contract Code shall apply to escrow agents acting pursuant to subdivision (c) of Section 10263 of the Public Contract Code.

Securities eligible for investment shall include those listed in Section 16430 of the Government Code, bank or savings and loan certificates of deposit, interest-bearing demand deposit accounts, standby letters of credit or any other security mutually agreed to by the Contractor and the City of Vallejo.

The escrow agreement used pursuant to this Section 9-1.065 shall be substantially similar to the "Escrow Agreement for Security Deposits In Lieu of Retention" in Section 10263 of the Public Contract Code, deemed as incorporated herein by reference.

The Contractor shall obtain the written consent of the surety to the agreement.

#### 9-1.07 PAYMENT AFTER ACCEPTANCE

After the work has been accepted in writing by the Director, as provided in Section 7-1.17, "Acceptance of Contract," payments will be made to the Contractor subject to the provisions in this Section 9-1.07.

#### 9-1.07A PAYMENT PRIOR TO PROPOSED FINAL ESTIMATE

After acceptance of the work by the Director, the Engineer will make an estimate of the total amount of work done under the Contract and the City of Vallejo will make a final monthly payment pending issuance of the proposed final estimate. The City of Vallejo will pay the balance thereon found to be due after deduction of all previous payments, all amounts to be kept or retained under the provisions of the Contract and those further amounts that the Engineer determines to be necessary pending issuance of the proposed final estimate and payment thereon.

#### 9-1.07B FINAL PAYMENT

After written acceptance of the Work as complete by the Director, or the Director's designated representative, the Engineer will prepare and issue to the Contractor a proposed final estimate in writing of the total amount payable to the Contractor, including



therein an itemization of the total amount, segregated as to Contract item quantities, extra work and any other basis for payment, and shall also show therein all deductions made or to be made for prior payments and amounts to be kept or retained under the provisions of the Contract. All prior estimates and payments shall be subject to correction in the proposed final estimate.

The Contractor shall submit written approval of the proposed final estimate or a written statement of all claims arising under or by virtue of the Contract so that the Engineer receives the written approval or statement of claims no later than close of business of the thirtieth day after receiving the proposed final estimate. If the thirtieth day falls on a Saturday, Sunday or legal holiday, then receipt of the written approval or statement of claims by the Engineer shall not be later than close of business of the next business day. No claim will be considered that was not included in the written statement of claims, nor will any claim be allowed as to which a notice or protest is required unless the Contractor has strictly complied with the notice or protest requirements of the Contract Documents.

On the Contractor's approval, or if the Contractor files no claim within the specified period of 30 days, the Engineer will issue a final estimate in writing in accordance with the proposed final estimate submitted to the Contractor. The City of Vallejo will pay any remaining moneys unpaid and found to be due in the proposed final estimate 35 days after the recordation of the Notice of Completion in the records of the Solano County Recorder's Office as per Section 7-1.17, "Acceptance of Contract". That final estimate and payment thereon shall be conclusive and binding against Contractor on all questions relating to the amount of work done and the compensation payable therefor.

If the Contractor within the specified period of 30 days files claims, the Engineer will issue a semifinal estimate in accordance with the proposed final estimate submitted to the Contractor and within 30 days thereafter the City of Vallejo will pay the sum so found to be due. The semifinal estimate and payment thereon shall be conclusive and binding against the Contractor on all questions relating to the amount of work done and the compensation payable therefor, except insofar as affected by the claims filed within the time and in the manner required hereunder.

#### 9-1.07C CLAIMS

A. General. A "Claim" means a written demand or written assertion by Contractor to adjust, alter, modify, or otherwise change the Contract price or the Contract time, or both. All claims filed hereunder shall strictly comply with all requirements of the Contract Documents.

In order to qualify as a "Claim," the written demand must state that it is a claim submitted under Section 9-1.07C of the Contract Documents. A letter, voucher, invoice, payment application, or other routine or authorized form of request for payment is not a Claim under the Contract Documents. If such a request is disputed as to liability or amount, then the disputed portion of the submission may be converted to a Claim under the Contract Documents by submitting a separate claim in compliance with claim submission requirements.

A Claim must be stated with specificity, including identification of the event or occurrence giving rise to the Claim, the date of the event, and the asserted affect on the Contract price and the Contract time, if any. The Claim shall include adequate supporting data. Adequate supporting data for a Claim for an adjustment of the Contract time shall include scheduling data demonstrating the impact of the event on the controlling operation and completion of the Project. Adequate supporting data for a Claim for an adjustment in the Contract price shall include a detailed cost breakdown of items included within the Claim and documentation supporting each item of cost.

Notwithstanding and pending the resolution of any Claim, the Contractor shall diligently prosecute the disputed work to final completion of the work. Contractor shall impose the Claim notice and documentation requirements in this Contract on Contractor's subcontractors of all tiers, and require them to submit to the Contractor all Claims against Contractor and/or City within the times and containing the documentation required by these provisions. The Claim notice and documentation procedure described in these provisions applies to all claims and disputes arising under the Contract Documents, whether or not specifically referred to in any specific portion of the Contract.

If additional information or details are required by the Engineer to determine the basis and amount of any Claims, the Contractor shall furnish additional information or details so that the additional information or details are received by the Engineer no later than the fifteenth day after receipt of the written request from the Engineer. If the fifteenth day falls on a Saturday, Sunday or legal holiday, then receipt of the information or details by the Engineer shall not be later than close of business of the next business day. Contractor understands and agrees that failure to submit the information and details to the Engineer within the time specified shall be result in Contractor waiving that Claim.

The Contractor and all subcontractors shall keep full and complete records of the costs and additional time incurred for any work for which a Claim for additional compensation is made. The Engineer or any designated claim investigator or auditor shall have access to those records and any other records as may be required by the Engineer to determine the facts or contentions involved in the claims. Contractor agrees that failure to permit access to those records waives Contractor's Claims.

The City of Vallejo, or its authorized representatives, shall have access, upon reasonable notice, during normal business hours, to Contractor and subcontractors' books, documents and accounting records, including but not limited to, bid worksheets, bids, subcontractor bids and proposals, estimates, cost accounting data, accounting records, payroll records, time sheets, canceled checks, profit and loss statements, balance sheets, project correspondence including but not limited to all correspondence between Contractor and its sureties and subcontractors/vendors, project files, scheduling information, and other records of the Contractor and all subcontractors directly or indirectly pertinent to

the work, original as well as change and claimed extra work, to verify and evaluate the accuracy of cost and pricing data submitted with any change order, prospective or completed, or any claim for which additional compensation has been requested or claim has been tendered. Such access shall include the right to examine and audit such records, and make excerpts, transcriptions, and photocopies at City of Vallejo's cost.

The parties agree that in the event Contractor or any subcontractor fails to comply with this section, it would be difficult for the City of Vallejo to determine its actual damages; therefore, Contractor agrees to pay City of Vallejo, as liquidated damages, the sum of Two Thousand dollars (\$2000.00), which Contractor agrees is reasonable under the circumstances, for each and every calendar day which Contractor or a subcontractor fails or refuses to provide the City of Vallejo, access to the materials specified in this section.

B. Disputes

Contract Interpretation Disputes: Should it appear to the Contractor that the work to be performed or any of the matters relative to the Contract Documents are not satisfactorily detailed or explained therein, or should any questions arise as to the meaning or intent of the Contract Documents, the Contractor shall give written notice to the City of Vallejo. The Contractor shall bear all costs incurred in the giving of such notice.

All issues regarding the interpretation of the plans or specifications shall be referred to the City for interpretation. The City shall have the right but not the obligation to affirm or disaffirm any interpretation of the plans or specifications, which affirmation or disaffirmance shall be final. If the Contractor should disagree with the City's decision, the Contractor's sole and exclusive remedy is to file a Claim in accordance with these provisions.

Work Disputes: Should any dispute arise under the Contract Documents respecting the true value of any work performed, the implementation of the Work required by the Contract Documents, any Work omitted, any extra work which the Contractor may be required to perform or time extensions, respecting the size of any payment to the Contractor during the performance of the Contract Documents, or of compliance with Contract Documents procedures, the dispute shall be decided by the City of Vallejo and its decision shall be final and conclusive. If the Contractor disagrees with the City's decision, the Contractor's sole and exclusive remedy is to file a claim in accordance with these provisions.

C. Delays. As used herein, the following terms shall have the following meanings:

"Excusable Delay" means any delay of the completion of the Project beyond the expiration of the Contract time caused by conditions beyond the control and without the fault or negligence of the Contractor such as strikes, embargoes, fire, unavoidable casualties, unusual delays in transportation, national emergency, and

stormy and inclement weather conditions in which the work cannot continue. The financial inability of the Contractor or any subcontractor and default of any subcontractor, without limitation, shall not be deemed conditions beyond the Contractor's control. An Excusable Delay may entitle the Contractor to an adjustment in the Contract time.

"Compensable Delay" means any delay of the completion of the work beyond the expiration date of the Contract time caused by the gross negligence or willful acts of the City of Vallejo, and which delay is unreasonable under the circumstances involved, and not within the contemplation of the parties. A Compensable Delay may entitle the Contractor to an extension of the Contract time and/or Contract price. Except as provided herein, the Contractor shall have no claim for damage or compensation for any delay, interruption, hindrance, or disruption.

"Unexcusable Delay" means any delay of the completion of the Project beyond the expiration of the Contract time resulting from causes other than those listed above. An Unexcusable Delay shall not entitle the Contractor to an extension of the Contract time or an adjustment of the Contract price.

The Contractor may make a Claim for an extension of the Contract time, for an Excusable Delay or a Compensable Delay, subject to the following:

1. If an Excusable Delay and a Compensable Delay occur concurrently, the maximum extension of the Contract time shall be the number of days from the commencement of the first delay to the cessation of the delay which ends last.
2. If an Unexcusable Delay occurs concurrently with either an Excusable Delay or a Compensable Delay, the maximum extension of the Contract time shall be the number of days, if any, by which the Excusable Delay or the Compensable Delay exceeds the Unexcusable Delay.
3. If an Unexcusable Delay occurs concurrently with both an Excusable Delay and a Compensable Delay, the maximum extension in the Contract time shall be the number of days, if any, by which the number of days determined pursuant to Subparagraph (a) exceeds the number of days of the Unexcusable Delay.
4. For a Compensable Delay, the Contractor shall only be entitled to an adjustment in the Contract price in an amount equal to the actual additional labor costs, material costs, and unavoidable equipment costs incurred by the Contractor as a result of the Compensable Delay, plus the actual additional wages or salaries and fringe benefits and payroll taxes of supervisory and administrative personnel necessary and directly employed at the Project site for the supervision of the work during the period of Compensable Delay. Except as provided herein, the Contractor shall have no claim for damage or compensation for any delay, interruption, hindrance, or disruption. There shall be no Compensable Delay unless the event or

occurrence giving rise to the Compensable Delay extends the actual completion of the Project past the Contract time.

The parties agree that the City of Vallejo's exercise of its right to order changes in the work, regardless of the extent and number of changes, or to suspend the work, is within the contemplation of the parties and shall not be the basis for any Claim for Compensable Delay. The rights of the Contractor to adjustments of the Contract time and the Contract sum, based on changes ordered in the work or suspension of the work, shall be governed by this provision.

Notwithstanding the making of any Claim or the existence of any dispute regarding any Claim, Contractor shall not cause any delay, cessation, or termination in or of Contractor's performance of the work, but shall diligently proceed with performance of the work in accordance with the Contract Documents.

Contractor agrees that the daily Contractor Delay Damages as set forth in the Proposal Form shall be full compensation to Contractor, all subcontractors and anyone for whom they may be legally responsible, for each day of delay that may be caused by City of Vallejo or anyone for whom City of Vallejo is legally responsible, including but not limited to, extended field costs, extended home overhead costs, impact, inefficiency, unabsorbed home office overhead, underabsorbed home office overhead, hindrance, disruption or any other damage arising from delay, no matter how characterized and regardless of the cause, extent or duration of the delay. Inclusion of Contractor Delay Damages within the Proposal Form is solely for the purpose of determining the low bidder and establishing the City of Vallejo's maximum daily liability as a result of City of Vallejo delays to Contractor, if any, and City of Vallejo has no obligation to pay any daily Contractor Delay Damages except as provided for in these Contract Documents for Compensable Delays. In the event that City of Vallejo becomes liable to Contractor for compensable delays, City of Vallejo agrees to pay Contractor the daily Contractor Delay Damages set forth in the Proposal Form or Contractor's actual daily delay damages, whichever is less, for each day of Compensable Delay as provided for by these Contract Documents.

- D. Claim Procedures. Should any clarification, determination, action or inaction by the City, Work, or any event, in the opinion of the Contractor, exceed the requirements of or not comply with the Contract Documents, or otherwise result in the Contractor seeking additional compensation in time or money for any reason (collectively "Disputed Work"), then the Contractor and the City shall make good faith attempts to resolve informally any and all such issues and/or disputes. The Contractor must file a written Notice of Potential Claim with the City on the form provided in the Contract Documents before commencing the Disputed Work, or within seven (7) calendar days after Contractor's first knowledge of the Disputed Work, whichever is earlier, stating clearly and in detail its objection and reasons for contending the Work or interpretation is outside the requirements of the Contract Documents. If a written Notice of Potential Claim is not filed within this time period, or if the Contractor proceeds with the Disputed Work without first

having filed the notice required by these provisions, the Contractor shall waive any rights to further claim on the specific issue.

The City will review the Contractor's timely Notice of Potential Claim and provide a decision. The City may require supplemental information from the Contractor to clarify that contained in the Notice of Potential Claim. If, after receiving the City's decision, the Contractor disagrees with the decision, the Contractor shall so notify the City, in writing, within seven (7) calendar days after receiving the decision, that a formal Claim will be filed. The Contractor shall submit the Claim in the form specified herein and all arguments, justification, costs or estimates, schedule analyses, and detailed documentation supporting the Contractor's position within thirty (30) calendar days after receiving the City's decision on the Notice of Potential Claim. The Contractor's failure to furnish notification within seven (7) calendar days and all justifying documentation within thirty (30) calendar days will result in the Contractor waiving all rights to the subject Claim.

If Disputed Work persists longer than thirty (30) calendar days after receiving the City's decision on the Notice of Potential Claim, then the Contractor shall, every thirty (30) calendar days until the Disputed Work ceases, submit to the City a document titled "Claim Update" which shall update and quantify all elements of the Claim as completely as possible. The Contractor's failure to submit a Claim Update or to quantify all costs and impacts every thirty (30) days shall result waiver of that portion of the Claim for that thirty (30) day period. Claims or Claim Updates stating that damages will be determined at a later date shall not comply with the requirements of these provisions and shall result in the Contractor waiving such Claim(s) and/or Claim Updates.

All Claims must be submitted to Engineer before the issuance of the final estimate. Contractor hereby expressly waives all Claims not submitted, in complete and proper form, on or before the date of issuance of the final estimate.

Upon receipt of the Contractor's formal Claim including all arguments, justifications, costs or estimates, schedule analyses, and documentation supporting the Contractor's position as previously stipulated, the City or its designate will review the Claim and render a final determination. If the Contractor's Claims at project completion total less than \$375,000, then claims resolution shall proceed in the manner prescribed by Article 1.5, Chapter 1, Part 3 of Division 2 of the California Public Contract Code.

Claims shall be calculated in the same manner as extra work using the procedures set forth in Section 9-1.03 "Force Account Payment." This method applies in all cases of Claims, regardless of type, whether in negotiation, arbitration, litigation, and even applies in the event of fault, negligence, strict liability, or tort claims of all kinds, including strict liability or negligence. No other costs arising out of or connected to with the performance of Claims, of any nature, may be recovered by the Contractor. Except where provided by law, or elsewhere in these Contract Documents (if applicable), the City shall not be liable for special or consequential damages, and Claims shall not include special or consequential damages.

Contractor shall be limited in its recovery on Claims to the calculations set forth in Section 9-1.03 of these provisions.

E. Claim Format. The Contractor shall submit the Claim justification in the following format:

1. Cover letter and certification of the accuracy of the contents of the Claim;
2. Summary of Claim including underlying facts, entitlement, quantum calculations and Contract Document provisions supporting relief;
3. List of documents relating to Claim including plans, specifications, clarifications/requests for information, schedules and others;
4. Chronology of events and correspondence;
5. Analysis of Claim merit;
6. Analysis of Claim costs;
7. Attached supporting documents referenced in Item 3.) above.

F. Exclusive Remedy. The Contractor's performance of its duties and obligations specified in these provisions and submission of a Claim as provided in these provisions is the Contractor's sole and exclusive remedy for the payment of money, extension of time, adjustment or interpretation of Contract Documents terms or other contractual or tort relief arising from the Contract Documents. This exclusive remedy and the limitation of liability (expressed herein and elsewhere throughout the Contract Documents) apply notwithstanding the completion, termination, suspension, cancellation, breach or rescission of the Work or the Contract Documents, negligence or strict liability by the City of Vallejo, its representatives, consultants or agents, or the transfer of the Work or the Project to the City for any reason whatsoever. The Contractor waives all claims of waiver, estoppel, release, bar, or any other type of excuse for non-compliance with the Claim submission requirements. Compliance with the notice and Claim submission procedures described in these provisions is a condition precedent to the right to commence litigation, file a Government Code Claim, or commence any other legal action. No Claim or issues not raised in a timely protest and timely Claim submitted under these provisions may be asserted in any Government Code Claim, subsequent litigation, or legal action. The City of Vallejo shall not have deemed to waive any provision under this Section, if at the City's sole discretion, a Claim is accepted in a manner not in accord with this Section.

G. Mediation. All Claims not subject to the Claim resolution procedures set forth in these provisions shall, as a condition precedent to litigation thereon, first be mediated. Mediation shall be non-binding and utilize the services of a mediator mutually acceptable to the parties, and, if the parties cannot agree, a mediator

selected by the American Arbitrator Association from its panel of approved mediators trained in construction industry mediation. All statutes of limitation shall be tolled from the date of the demand for mediation until a date two weeks following the mediation's conclusion. All unresolved claims shall be submitted to the same mediator. The cost of mediation shall be equally shared.

9-1.075 FALSE CLAIMS

California Penal Code section 72, provides that any person who presents for payment with intent to defraud any district board or officer, any false or fraudulent claim, bill, account, voucher, or writing, is punishable by fines not exceeding ten thousand dollars (\$10,000.00) and/or imprisonment in the state prison.

Government Code sections 12650, et seq., pertains to civil penalties that may be recovered from persons (including corporations, etc.) for presenting a false claim for payment or approval, presents a false record or statement to get a false claim paid or approved, or other acts, to any officer or employee of any political subdivision of the State of California. Any person or corporation violating the provisions of Government Code sections 12650, et seq., shall be liable for three times the amount of the damages of the political subdivision, plus a civil penalty, plus costs.

All Claims by Contractor, shall include the following certification, properly completed and executed by Contractor or an officer of Contractor:

I, \_\_\_\_\_, BEING THE \_\_\_\_\_ (MUST BE AN OFFICER) OF \_\_\_\_\_ (CONTRACTOR), DECLARE UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA, AND DO PERSONALLY CERTIFY AND ATTEST THAT: I HAVE THOROUGHLY REVIEWED THE ATTACHED CLAIM FOR ADDITIONAL COMPENSATION AND/OR EXTENSION OF TIME, AND KNOW ITS CONTENTS, AND SAID CLAIM IS TRUTHFUL AND ACCURATE; THAT THE AMOUNT REQUESTED ACCURATELY REFLECTS THE CONTRACT ADJUSTMENT FOR WHICH THE OWNER IS LIABLE; AND, FURTHER, THAT I AM FAMILIAR WITH CALIFORNIA PENAL CODE SECTION 72 AND CALIFORNIA GOVERNMENT CODE SECTION 12650, ET SEQ, PERTAINING TO FALSE CLAIMS, AND FURTHER KNOW AND UNDERSTAND THAT SUBMISSION OR CERTIFICATION OF A FALSE CLAIM MAY LEAD TO FINES, IMPRISONMENT AND/OR OTHER SEVERE LEGAL CONSEQUENCES.

Contractor agrees that submission of a Claim, in strict conformance with all of the requirements of this Contract, and rejection of all or part of said Claim by City of Vallejo, is a condition precedent to any action by Contractor against City of Vallejo, including but not limited to, the submission of a claim pursuant to Government Code section 900, et seq., and the filing of a lawsuit.

Any claim for overhead type expenses or costs, in addition to being certified as stated above, shall be supported by an audit report of an independent Certified Public Accountant provided by Contractor with the claim.



Contractor agrees that any costs or expenses incurred by the City of Vallejo in reviewing or auditing any claims that are not supported by the Contractor's cost accounting or other records, or the Contract, shall be deemed to be damages incurred by the City of Vallejo within the meaning of the California False Claims Act.

Upon final determination of the claims, the Engineer will then make and issue the Engineer's final estimate in writing and within 30 days thereafter the City of Vallejo will pay the entire sum, if any, found due thereon. That final estimate shall be conclusive and binding against Contractor on all questions relating to the amount of work done and the compensation payable therefor.

9-1.08 (BLANK)

9-1.09 CLERICAL ERRORS

Notwithstanding the provisions in Section 9-1.07, "Payment After Acceptance," for a period of 3 years after acceptance of the work, all estimates and payments made pursuant to Section 9-1.07, including the final estimate and payment, shall be subject to correction and adjustment for clerical errors in the calculations involved in the determination of quantities and payments. The Contractor and the City of Vallejo agree to pay to the other any sum due under the provisions of this Section 9-1.09, provided, however, if the total sum to be paid is less than \$200, no payment shall be made.

9-1.10 (BLANK)

9-1.11 CONTRACTOR NOT AN AGENT OF THE CITY OF VALLEJO

The right of general supervision shall not make the Contractor an agent of the City of Vallejo, and the liability of the Contractor for all damages to persons or to public or private property arising from the performance of the work shall not be lessened because of such general supervision.

9-1.12 THIRD-PARTY CLAIMS

The Contractor shall be responsible for all third-party claims, and for costs or injuries incurred by a third party which result from the operations of the Contractor, or its performance under the Contract.

9-1.13 GUARANTEE

Should any failure of the work occur within a period of one year after recordation of the notice of completion of the project or portions thereof, which can be attributed to faulty materials, poor workmanship, or defective equipment, the Contractor shall promptly make the needed repairs at Contractor's expense.

The City of Vallejo is hereby authorized to make such repairs if the Contractor fails to make or undertake with due diligence the aforesaid repairs within ten (10) days after

Contractor is given written notice of such failure and without notice to the surety provided, however, that in case of emergency where, in the opinion of the City of Vallejo, delay would cause serious loss or damages, or a serious hazard to the public, the repairs may be made or lights, signs, and barricades erected, without prior notice to the Contractor or surety, and the Contractor shall pay the entire costs thereof.

#### 9-1.14 MISCELLANEOUS PROVISIONS

This Contract shall bind and inure to the heirs, devisees, assignees, and successors in interest of Contractor, and to the successors in interest of City of Vallejo, in the same manner as if such parties had been expressly named herein.

This Contract shall be governed by the laws of the State of California.

If any one or more of the provisions contained in the Contract should be invalid, illegal, or unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions contained herein shall not in any way be affected or impaired thereby.

This Contract constitutes the full and complete understanding of the parties, and supersedes any previous agreements or understandings, oral or written, with respect to the subject matter hereof. The Contract may only be modified by a written instrument signed by both parties.

Contractor hereby assigns to City of Vallejo all its first-tier subcontracts now or hereafter entered into by Contractor for performance of any part of the work. The assignment will be effective upon acceptance by City of Vallejo in writing, and only as to those subcontracts which City of Vallejo designates in writing. Such assignment is part of the consideration to City of Vallejo for entering into the Contract with Contractor, and may not be withdrawn.

The provisions of the Contract Documents shall be included in all subcontracts.

#### 9-1.15 PUBLIC CONTRACT CODE SECTION 20104, ET SEQ.

Public Contract Code section 20104, et seq., requires that the following language be set forth in the specifications:

§ 20104. Application of article; provisions included in plans and specifications

- (i) (1) This article applies to all public works claims of three hundred seventy-five thousand dollars (\$375,000) or less which arise between a contractor and a local agency.
- (2) This article shall not apply to any claims resulting from a contract between a contractor and a public agency when the public agency has elected to resolve any disputes pursuant to Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2.

- (ii)
  - (1) "Public work" has the same meaning as in Sections 3100 and 3106 of the Civil Code, except that "public work" does not include any work or improvement contracted for by the state or the Regents of the University of California.
  - (2) "Claim" means a separate demand by the contractor for (A) a time extension, (B) payment of money or damages arising from work done by, or on behalf of, the contractor pursuant to the contract for a public work and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled to, or (c) an amount the payment of which is disputed by the local agency.
- (iii) The provisions of this article or a summary thereof shall be set forth in the plans or specification for any work which may give rise to a claim under this article.
- (iv) This article applies only to contracts entered into on or after January 1, 1991.

**§ 20104.2. Claims; requirements; tort claims excluded**

For any claim subject to this article, the following requirements apply:

- (v) The claim shall be in writing and include the documents necessary to substantiate the claim. Claims must be filed on or before the date of final payment. Nothing in this subdivision is intended to extend the time limit or supersede notice requirements otherwise provided by contract for the filing of claims.
- (vi)
  - (1) For claims of less than fifty thousand dollars (\$50,000), the local agency shall respond in writing to any written claim within 45 days of receipt of the claim, or may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the local agency may have against the claimant.
  - (2) If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the local agency and the claimant.
  - (3) The local agency's written response to the claim, as further documented, shall be submitted to the claimant within 15 days after receipt of the further documentation or within a period of time no greater than that taken by the claimant in producing the additional information, whichever is greater.
- (vii)
  - (1) For claims of over fifty thousand dollars (\$50,000) and less than or equal to three hundred seventy-five thousand dollars (\$375,000), the local agency shall respond in writing to all written claims within 60 days of receipt of the claim, or may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the local agency may have against the claimant.

- (2) If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the local agency and the claimant.
  - (3) The local agency's written response to the claim, as further documented, shall be submitted to the claimant within 30 days after receipt of the further documentation, or within a period of time no greater than that taken by the claimant in producing the additional information or requested documentation, whichever is greater.
- (viii) If the claimant disputes the local agency's written response, or the local agency fails to respond within the time prescribed, the claimant may so notify the local agency, in writing, either within 15 days of receipt of the local agency's response or within 15 days of the local agency's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon a demand, the local agency shall schedule a meet and confer conference within 30 days for settlement of the dispute.
- (ix) Following the meet and confer conference, if the claim or any portion remains in dispute, the claimant may file a claim as provided in Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code. For purposes of those provisions, the running of the period of time within which a claim must be filed shall be tolled from the time the claimant submits his or her written claim pursuant to subdivision (a) until the time that claim is denied as a result of the meet and confer process, including any period of time utilized by the meet and confer process.
- (x) This article does not apply to tort claims and nothing in this article is intended nor shall be construed to change the time periods for filing tort claims or actions specified by Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code.

**§ 20104.4. Civil action procedures; mediation and arbitration; trial de novo; witnesses**

The following procedures are established for all civil actions filed to resolve claims subject to this article:

- (i) Within 60 days, but no earlier than 30 days, following the filing or responsive pleadings, the court shall submit the matter to nonbinding mediation unless waived by mutual stipulation of both parties. The mediation process shall provide for the selection within 15 days by both parties of a disinterested third person as mediator, shall be commenced within 30 days of the submittal, and shall be concluded within 15 days from the commencement of the mediation unless a time requirement is extended upon a good cause showing to the court or by stipulation of both parties. If the parties fail to select a mediator within the 15-day period, any party may

petition the court to appoint the mediator.

- (ii)
  - (1) If the matter remains in dispute, the case shall be submitted to judicial arbitration pursuant to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, notwithstanding Section 1141.11 of that code. The Civil Discovery Act of 1986 (Article 3 (commencing with Section 2016) of Chapter 3 of Title 3 of Part 4 of the Code of Civil Procedure) shall apply to any proceeding brought under this subdivision consistent with the rules pertaining to judicial arbitration.
  - (2) Notwithstanding any other provision of law, upon stipulation of the parties, arbitrators appointed for purposes of this article shall be experienced in construction law, and, upon stipulation of the parties, mediators and arbitrators shall be paid necessary and reasonable hourly rates of pay not to exceed their customary rate, and such fees and expenses shall be paid equally by the parties, except in the case of arbitration where the arbitrator, for good cause, determines a different division. In no event shall these fees or expenses be paid by state or county funds.
  - (3) In addition to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, any party who after receiving an arbitration award requests a trial de novo but does not obtain a more favorable judgment shall, in addition to payment of costs and fees under that chapter, pay the attorney's fees of the other party arising out of the trial de novo.
  - (4) The court may, upon request by any party, order any witnesses to participate in the mediation or arbitration process.

**§ 20104.6. Payment on undisputed portion of claim; interest on arbitration awards or judgments**

- (a) No local agency shall fail to pay money as to any portion of a claim which is undisputed except as otherwise provided in the contract.

In any suit filed under Section 20104.4, the local agency shall pay interest at the legal rate on any arbitration award or judgment. The interest shall begin to accrue on the date the suit is filed in a court of law.

*This page intentionally left  
blank*

## SECTION C -WAGE AND EQUIPMENT RATES

### 1. Prevailing Wage Rates

In accordance with the provisions of Section 1770 of the Labor Code of the State of California, the Director of the Department of Industrial Relations has determined the general prevailing rate of per diem wages applicable to the work to be done, and a current copy of said prevailing wages is on file with the City Clerk. Should the minimum Federal Wage Rate be higher than the rate determined by the Director of the Department of Industrial Relations, then the Federal Wage Rate Determination shall govern.

The successful bidder will be required to post a copy of these general prevailing rates of per diem wages in a conspicuous place at the job site forthwith upon undertaking the public work called for herein.

In addition, the City Charter of the City of Vallejo requires that the Contractor and all his/her Subcontractors shall pay their employees on said work a salary or wage at least equal to the prevailing salary or wage for work of similar character in the locality in which the public work is performed. The Contractor shall, as a penalty, forfeit to the City FIFTY DOLLARS (\$50.00) for each calendar day or portion thereof, for each employee paid less than the prevailing salary or wage for any public work done under the contract by him/her or any subcontractor under him/her.

The State Labor Code states that for violations of public works laws relating to payment of prevailing wages, the City of Vallejo will be required to withhold from any progress payments owed to a contractor any amounts that have been forfeited as penalties, or as wages owed to employees, who have not been paid the prevailing wage for work performed. Effective 1/1/93, the City is required to directly transfer all withheld wages and penalties to the Labor Commissioner for disbursement in those cases where a contractor fails to bring a lawsuit for amounts withheld within 90 days after the completion of the public works contract and formal acceptance of the job by the City.

Also, the Labor Commissioner is permitted to intervene in any lawsuit brought by the contractor against an awarding body for recovery of amounts withheld. In the event that the contract does not prevail in the lawsuit to recover the amounts withheld, the wages and penalties will then be forwarded to the Labor Commissioner for disbursement in the manner previously described.

### 2. Payroll Record

In accordance with the provisions of Section 1776 of the Labor Code of the State of California, the Contractor shall keep an accurate payroll record, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid

to each journeyman, apprentice, worker or other employee employed by the Contractor in connection with this project. This payroll record shall be certified and available for inspection at all reasonable hours at the principal office of the successful bidder and a certified copy shall be furnished within ten (10) days after receipt of a written request by the following parties:

- A. An employee or his/her authorized representative
- B. City's representative
- C. Representative of Labor Standard Enforcement and Division of Apprenticeship Standard of Department of Industrial Relations.

Any copy of the payroll record made available for inspection and furnished to the public through the above entities shall not disclose names, addresses or social security numbers of individual employees except the name and address of the Contractor.

In the event of non-compliance with the requirement of this subdivision, the Contractor shall have ten (10) days in which to comply subsequent to receipt of written notices from the State or City. If the non-compliance is still evident after the ten-day period, the Contractor shall, as a penalty, forfeit to the City TWENTY-FIVE DOLLARS (\$25.00) for each calendar day, for each employee, until strict compliance is effectuated.

3. Equipment Rental Rates

Equipment rental will be paid for as provided under Section 9-1.03A of the State Standard Specifications at the rates listed in the EQUIPMENT RENTAL RATES TABLE of the State of California, Department of Public Works, Division of Highways, latest issue, for use in their Special Provisions, a copy of which Table of Rates is filed in the Engineer's Office.



STATE OF CALIFORNIA - DEPARTMENT OF INDUSTRIAL RELATIONS  
 DIVISION OF APPRENTICESHIP STANDARDS

TO: California Department of Industrial Relations  
 Division of Apprenticeship Standards  
 P.O. Box 603  
 San Francisco, CA 94101

FROM: City of Vallejo  
 Water Department  
 P.O. Box 3068  
 Vallejo, CA 94590

833690000

A contract to perform public works under Labor Code §1777.5 has been awarded to:

Name of General Contractor:		Contractor 's License Number:	
Mailing Address:		City:	
		Zip code:	Telephone Number: ( )
Address or Location of Work Site (include City and/or County):			
Contract or Project Number:		Dollar Amount of Contract Award:	
Starting Date (Estimated or Actual) Month      Day      Year /      /		Completion Date (Estimated or Actual) Month      Day      Year /      /	
		Number of Working Days:	
Type of Construction (Highway, school, hospital, etc):		<input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> ALTERATIONS	
Classification or Type of Workman (Carpenter, Plumber, etc.):			
Is language included in the Contract Award to effectuate the provisions of Section 1777.5 as required by the Labor Code? <input type="checkbox"/> YES <input type="checkbox"/> NO			
Is Language included in the Contract Award to effectuate the provisions of Section 1776 as required by the Labor Code? <input type="checkbox"/> YES <input type="checkbox"/> NO			
Signature:		Title:	Date:
Printed or Typed Name:		Telephone Number: ( )	

Duplication of this form is permissible

DAS 13 (RV. 7/85)

**STATE OF CALIFORNIA**  
Edmund G. Brown, Jr., Governor

DEPARTMENT OF INDUSTRIAL RELATIONS  
Lloyd Aubry, Director  
CALIFORNIA DIVISION OF APPRENTICESHIP STANDARDS  
Robert Stranberg, Chief Deputy Director  
P.O. Box 420603  
San Francisco, CA 94142  
Telephone (415) 703-4251

DISTRICT OFFICES	ADDRESS	TELEPHONE
Fresno 93721	2550 Mariposa Street, Room 3080	(209) 445-5431
Los Angeles 90012	107 South Broadway, Room 5034	(213) 897-1385
Oakland 94621	7700 Edgewater Drive, Suite 327	(510) 729-5170
Sacramento 95825	2424 Arden Way, Suite 160	(916) 920-6111
San Jose 95113	100 Paseo De San Antonio, Room 125	(408) 277-1273
Santa Ana 92701	28 Civic Center Plaza, Room 525	(714) 558-4126

## SECTION D: TECHNICAL SPECIFICATIONS

### Division 1 – General Requirements

01 00 25	Measurement and Payment
01 11 00	Summary of Work
01 11 20	Site Conditions
01 14 00	Work Sequence and Constraints
01 31 19	Project Meetings
01 32 00	Construction Schedule
01 33 00	Submittals
01 34 00	Requests for Information and Clarifications
01 35 24	Project Safety Requirements
01 50 00	Construction Facilities and Utilities
01 57 19	Environmental Controls
01 61 00	Materials and Equipment
01 65 00	Shipment, Protection, and Storage
01 71 13	Mobilization and Demobilization
01 75 17	Equipment and System Testing
01 77 00	Contract Closeout Procedures
01 78 39	Record Drawings
01 89 00	Restoration of Improvements
01 91 00	Facility Start-up and Commissioning

### Division 2 – Site Construction

02 42 00	Demolition and Abandonment
02 42 13	Recyclable Materials

### Division 3 – Concrete

03 30 00	Cast-in-Place Concrete
03 60 00	Grout

Division 5 – Metals

05 50 01 Metal Fabrications

05 50 01 Anchor Bolts and Anchoring Devices

Division 7 – Finished

07 90 00 Sealants and Caulking

Division 11 – Equipment

11 00 00 General Requirements for Equipment

11 05 20 Equipment Mounting

Division 40 – Process Integration

40 05 51 General Requirements for Valves

40 05 58 Valves and Appurtenances

40 05 59.33 Sluice Gate Valve

40 23 00 Piping Systems

Division 46 – Water and Wastewater Equipment

46 41 33 Horizontal Flocculation Equipment

46 43 11 Chain and Flight Clarifier Equipment

## SECTION 01 00 25

### MEASUREMENT AND PAYMENT

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. Methods of measurement and payment for specific items of Work under this Contract. Refer also to General Provisions for administrative aspects of payments by the Owner to the Contractor.

##### 1.2 REQUIREMENT

- A. Payment for the various items of the Bid Schedule as further specified herein, shall include all compensation to be received by the Contractor for furnishing all tools, equipment, supplies, and manufactured articles, and for all labor, operations, and incidentals appurtenant to the items of work being described, as necessary to complete the various items of the Work all in accordance with the requirements of the Contract Documents, including all appurtenances thereto, and including all costs of permits and cost of compliance with the regulations of public agencies having jurisdiction, including Safety and Health Requirements of the California Division of Industrial Safety and the Occupational Safety and Health Administration of the U.S. Department of Labor (OSHA). No separate payment will be made for any item that is not specifically set forth in the Bid Schedule, and all costs therefore shall be included in the prices named in the Bid Schedule for the various appurtenant items of work.

##### 1.3 LUMP SUM WORK

- A. Contractor's cost for "Lump Sum Work" shall cover all Work indicated by the Contract Documents. Lump Sum Work will be paid for on a progress payment basis in accordance with the provisions of the General Provisions.

##### 1.4 BID COMPONENTS AND PAYMENT

###### A. BID ITEM NO. 1 – MOBILIZATION/DEMOBILIZATION

1. No measurement shall be made for this item.
2. Payment for Mobilization/Demobilization will be made at the lump sum price named in the Bid Schedule under Item No. 1. No payment for mobilization or any part thereof will be approved for payment under the Contract until all following mobilization items listed have been completed as specified:
  - a. Moving on to the site all of Contractor's equipment required for first month operations.
  - b. Establishing fire protection system, if required.
  - c. Arranging for and erection of Contractor's work and storage yard.

- d. Having all OSHA required notices and establishment of safety programs.
  - e. Performing all required documentation of existing site conditions.
  - f. Having the Contractor's superintendent at the jobsite full time.
  - g. Submitting initial submittals.
  - h. Erosion control plan and installation.
  - i. Construction staking.
3. This item shall be paid in proportion to the percentage of job completion.
- B. BID ITEM NO. 2 - TRAFFIC CONTROL**
- 1. No measurement shall be made for this item.
  - 2. Payment for Traffic Control will be made at the lump sum price named in the Bid Schedule under Item No. 2 and shall constitute full compensation for furnishing all labor, materials, tools, equipment, incidentals, and all the work involved and necessary for traffic control, construction signing and traffic control maintenance, complete in place, including preparation of traffic control plans, notices, signs, barricades, delineators, sign relocations and maintenance, flaggers, and auxiliary police services to complete this project as specified in these specifications.
  - 3. This item shall be paid in proportion to the percentage of job completion.
- C. BID ITEM NO. 4 – VERIFICATION OF EXISTING UTILITIES AND FACILITIES**
- 1. No measurement shall be made for this item.
  - 2. Payment for Verification of Existing Utilities and Facilities shall be made at the lump sum price named in the Bid Schedule under Item No. 4 and shall constitute full compensation for furnishing all labor, materials, tools, equipment, incidentals, and all the work involved and necessary for the verification of the location and elevation of the existing utilities and facilities, including surveying, and preparation of field investigation report to ensure proper installation of all materials and equipment, all in accordance with the requirements of the Contract Documents.
  - 3. This item shall be paid in proportion to the percentage of job completion.
- D. BID ITEM NO. 6 – DEMOLITION, SALVAGE AND ABANDONMENT**
- 1. No measurement shall be made for this item.
  - 2. Payment for Demolition, Salvage and Abandonment will be made at the lump sum price named in the Bid Schedule under Item No. 6 and shall constitute full compensation for demolishing, removal, and associated work, for all of the equipment noted in specifications and plans, all in accordance with the requirements of the Contract Documents.
  - 3. This item shall be paid in proportion to the percentage of job completion.
- E. BID ITEM NO. 7 – INSTALLATION OF FLOCCULATION EQUIPMENT**
- 1. No measurement shall be made for this item.

2. Payment for Installation of Flocculation Equipment will be made at the lump sum price named in the Bid Schedule under Item No. 7 and shall constitute full compensation for furnishing all labor, materials, tools, equipment, incidentals, and all the work involved for installation of flocculation equipment.
  3. Contractor shall refer to the specifications and plans for bills of materials to be purchased by the City. All other equipment and materials necessary for installation of flocculation equipment shall be furnished by the Contractor.
  4. This item shall be paid in proportion to the percentage of job completion.
- F. BID ITEM NO. 8 – INSTALLATION OF CHAIN AND FLIGHT EQUIPMENT
1. No measurement shall be made for this item.
  2. Payment for Installation of Chain and Flight Equipment will be made at the lump sum price named in the Bid Schedule under Item No. 8 and shall constitute full compensation for furnishing all labor, materials, tools, equipment, incidentals, and all the work involved for installation of Chain and Flight equipment.
  3. Contractor shall refer to the specifications and plans for bills of materials to be purchased by the City. All other equipment and materials necessary for installation of Chain and Flight equipment shall be furnished by the Contractor.
  4. This item shall be paid in proportion to the percentage of job completion.
- G. BID ITEM NO. 9 – INSTALLATION OF MISCELLANIOUS EQUIPMENT
5. No measurement shall be made for this item.
  6. Payment for Installation of Miscellaneous Equipment will be made at the lump sum price named in the Bid Schedule under Item No. 9 and shall constitute full compensation for furnishing and installation of miscellaneous equipment such as piping, valves, fittings, spray nuzzles, scum troughs, launders, stainless steel bracings and others.
  7. Contractor shall refer to the specifications and plans for bills of materials to be purchased by the City. All other equipment and materials necessary for installation of miscellaneous equipment shall be furnished by the Contractor.
  8. This item shall be paid in proportion to the percentage of job completion.
- H. BID ITEM NO. 10 – PRESSURE TESTING AND DISINFECTION OF PIPE
1. No measurement shall be made for this item.
  2. Payment for Pressure and Leakage Testing and Disinfection of piping will be made at the lump sum price named in the Bid Schedule under Item No. 10 and shall constitute full compensation for testing and disinfecting pipelines including: preparation of a testing plan, submittal of pipe test records, pumps, hoses, gauges; non-destructive testing; preparation of a

disinfection plan, disinfectant, as well as all labor, tools, equipment and incidentals necessary for performing all work involved, complete in place, as described in these contract documents, and as directed by the Engineer, all in accordance with the requirements of the Contract Documents.

3. This item shall be paid in proportion to the percentage of job completion.

I. BID ITEM NO. 11 – STARTUP AND TESTING

1. No measurement shall be made for this item.

2. Payment for Startup and Testing will be made at the lump sum price named in the Bid Schedule under Item No. 11 and shall constitute full compensation for coordination with equipment manufacturer, testing and commissioning, as well as all labor, tools, equipment and incidentals necessary for performing all work involved, complete in place, as described in these contract documents, and as directed by the Engineer, all in accordance with the requirements of the Contract Documents.

3. This item shall be paid in proportion to the percentage of job completion.

1.5 SCHEDULE OF VALUES

A. Format: Identify each line item in the Schedule of Values with number and title of the major Specification sections. Submit typed schedule on 8½ x 11-inch paper; Contractor's standard form or media-driven printout will be considered on request.

B. At the pre-construction meeting, submit a preliminary Schedule of Values to the Owner's Representative for review. The Contractor shall incorporate any review comments from the Owner's Representative, and submit a final Schedule of Values at least 21 days prior to submitting the first Application for Payment.

C. The Schedule of Values shall assign a fair, reasonable and equitable dollar value for each activity on the Contractor's construction schedule. The Schedule of Values shall include anticipated progress payments for each item in the bid schedule through the final payment. In addition, a detailed breakdown of lump sum prices shall be included in the Schedule of Values.

D. The Schedule of Values shall specifically indicate installed cost for materials and equipment for each bid and sub-bid item.

E. Each activity's assigned value shall consist of labor, equipment and materials cost and a prorata contribution to overhead and profit. Breakdown shall be so organized as to facilitate assessment of work and payment of subcontractors.

F. The sum of the assigned values shall equal the lump sum price of the activity.

G. If, in the opinion of the Owner's Representative or Owner, the Schedule of Values is not balanced, the Contractor shall provide documentation substantiating the cost allocations of those activities believed to be unbalanced. Cost allocation will be considered unbalanced if an activity on the construction schedule has been assigned a disproportionate allocation of labor, direct, or overhead and profit costs which result in progress payment request(s) which would create a condition where insufficient funds are available to complete the unfinished work. Upon request by



Owner, support values shall be given with data that will substantiate their accuracy. Upon Owner's request, the Contractor shall submit additional detailed cost information.

- H. Upon acceptance of the Schedule of Values, it shall be used as a basis for processing all progress payment requests.

#### 1.6 PROGRESS PAYMENT REQUESTS

- A. Submit Progress Payment Requests during the course of the project in conformance with the General Provisions.

### **PART 2 - PRODUCTS (NOT USED)**

### **PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

***(THIS PAGE LEFT BLANK INTENTIONALLY)***

## SECTION 01 11 00

### SUMMARY OF WORK

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. General description of the Project and the Work to be performed by the Contractor.

##### 1.2 WORK COVERED BY CONTRACT

- A. The project location is indicated on the Drawings.
- B. The Work to be performed by the Contractor generally includes:
  - 1. Furnishing all labor, superintendence, materials, power, tools, equipment and services required by the Contract Documents or required to complete the Work.
  - 2. Coordinate work of all trades.
  - 3. Furnishing and installing miscellaneous items incidental to or necessary for completion of the Work, whether these items are specifically indicated in the Contract Documents or not.
- C. The Work consists of construction of the following major items:
  - 1. The work shall be limited to Flocculation and Sedimentation Basins No. 1 & 8 which are considered confined space. Furnish all labor, materials, equipment and incidentals necessary to replace the flocculators, chain and flight, and other miscellaneous equipment and materials per the specifications and plans.
- D. Owner-Furnished Equipment:
  - 1. Owner will furnish the following products to Contractor for installation:
    - a. See Plan sheets 3 and 4 for a detailed list of equipment to be provided by the City.
  - 2. Work under this Contract includes all provisions necessary to fully incorporate Owner-furnished products, including piping, fasteners, supports, conduit, coatings and other provisions necessary for a complete and operational installation.

##### 1.3 OTHER CONTRACTS

- A. The Owner may be undertaking other projects at the plant site simultaneously with the Work to be completed under this project. Coordination with the contractors undertaking related work or un-related work within the plant is the responsibility of the Contractor.

##### 1.4 SPECIFICATION LANGUAGE

- A. Specifications may be written in the imperative mood and streamlined form in accordance with practices and principals of the Construction Specifications Institute.
- B. Imperative language is directed to the Contractor unless specifically noted otherwise.
- C. The words “shall be” are included by inference where a colon (:) is used within sentences or phrases.

#### 1.5 REGULATORY REQUIREMENTS

- A. Comply with all Federal, State, and local laws, regulations, codes, and ordinance applicable to the work.
- B. References in the Contract Documents to local codes shall mean those of the City of Vallejo.
- C. All work shall comply with the City of Vallejo standard specifications and standard details unless otherwise shown on the Drawings.
- D. Other standards and codes that apply to the work are designated in the Specifications.
- E. State of California Standard Specifications, 2013

#### 1.6 ACCESS BY GOVERNMENT OFFICIALS

- A. Authorized representatives of governmental agencies shall at all times have access to the work area. Provide proper facilities for access and inspection.

#### 1.7 PROTECTION OF PUBLIC AND PRIVATE PROPERTY

- A. Construction will encounter numerous existing features of various types. Contractor shall protect existing features of this nature and all features affected by construction operations shall be restored to their original condition.
- B. To the greatest extent possible, remove existing features without damaging the materials and re-use the material to place back in the original condition. When existing features are damaged during removal, install new materials of similar type, appearance and function, at no additional cost to the Owner.
- C. Contractor shall be responsible for all damage to streets, roads, driveways, highways, shoulders, ditches, embankments, culverts, bridges, and other public or private property, regardless of location or character, that may be caused by transporting equipment, materials, or workers to or from the work or any part or site thereof, whether by Contractor or Contractor’s subcontractors or suppliers.
- D. Keep water control valves free from obstruction and available for use at all times.

### **PART 2 - PRODUCTS (NOT USED)**

### **PART 3 - EXECUTION (NOT USED)**

#### **END OF SECTION**

## SECTION 01 11 20

### SITE CONDITIONS

#### PART 1 - GENERAL

##### 1.1 RELATIONSHIP WITH EXISTING FACILITIES

- A. The City of Vallejo owns and operates water facilities located on the project site. The Work under this project will interface with these existing facilities.
- B. Owner's personnel will be responsible for operating and maintaining the existing facilities throughout the execution of this Contract.
- C. Take particular care to avoid clutter and debris at the site of the work. This includes work areas and staging areas along the pipeline alignment and the staging area at the treatment plant.
- D. Limit operations, storage of equipment, and materials and parking of employees to the areas designated by the Engineer. The designated areas will be provided during the pre-construction meeting.
- E. Except for allowable out-of-service periods as specified, the Contractor shall be responsible for maintaining in operation during construction all sanitary and storm sewers, service laterals, catch basins, manholes, and related facilities. Provide all temporary pumps and piping required to keep facilities in operation throughout the construction period. No existing sanitary or storm sewer shall be taken out of service without the written permission of the Engineer.

##### 1.2 CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTIES AND SERVICE

- A. Where the Contractor's operations could cause damage or inconvenience to existing telephone, power, oil, gas, water, sewer, or irrigation systems, make arrangements necessary for the protection and sustained operation of these utilities and services. If temporary disruption is necessary to complete the work, make arrangements with the owner of the utility prior to service cutoff and also notify the Engineer.
- B. The Contractor is solely and directly responsible to the Owners of utilities, property, fences, and other existing appurtenances for any damage, injury, expense, loss, inconvenience, delay, suits, actions, or claims of any character brought because of any injuries or damage that may result from the construction operations under this Contract.
- C. Neither the Owner nor its officers or agents shall be responsible to the Contractor or the Contractor's subcontractors for damages as a result of the Contractor's failure to protect utilities encountered in the work.
- D. Replace, at Contractors expense, all existing utilities or structures damaged during construction, unless otherwise provided for in these Contract Documents.

### 1.3 EXISTING UTILITIES

- A. Connecting to Existing Facilities: Inspect and survey the facilities that are to be connected to or that might be affected by the construction of the proposed improvements for verification of material, condition, location and elevation prior to ordering pipe.
- B. Contractor shall locate and verify the location of existing utilities in advance of construction to avoid project delays. Notify the Engineer of any utilities not shown on the Drawings.
- C. Contractor shall protect all underground utilities and other improvements which may be impaired during construction operations. Contractor shall take all possible precautions for the protection of unforeseen utility lines to provide for uninterrupted service and to provide such special protection as may be necessary.

### 1.4 FIELD RELOCATION

- A. During the progress of construction, minor relocations of the work may be necessary. If field conditions are encountered that will prevent construction as shown, notify the Engineer before continuing with the work. The Engineer may make minor field revisions as necessary to resolve the field condition without change in the Contract Price. If the Contractor fails to notify the Engineer when such field conditions are encountered, and proceeds with the work despite the interference, it shall be at the Contractor's own risk.

### **PART 2 - PRODUCTS (NOT USED)**

### **PART 3 - EXECUTION (NOT USED)**

### **END OF SECTION**

## SECTION 01 14 00

### WORK SEQUENCE AND CONSTRAINTS

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. Schedule requirements, construction constraints, and a Work sequence for specific elements of the Project.

##### 1.2 REFERENCED SECTIONS

- A. The following Section is referenced in this Section:
  - 1. City of Vallejo, Section B – General Provisions

##### 1.3 GENERAL SEQUENCING REQUIREMENTS

- A. Sequencing requirements and construction constraints have been defined in this Section. If shutdown constraints are necessary to allow implementation of Contractor's construction procedures and schedule, the Engineer will establish such constraints.
- B. Contractor's Construction Schedule:
  - 1. Clearly illustrate the proposed sequence of construction.
  - 2. Conform to the sequencing requirements and limitations specified in this Section where specified.
  - 3. Modify or adapt the suggested sequencing as necessary to complete the project provided all environmental and service continuity requirements are met and revised sequencing plan is submitted and approved by the Engineer.

##### 1.4 OPERATIONAL CONTINUITY

- A. The City of Vallejo owns and operates water treatment facilities. The Work under this project will interface with these existing facilities.
- B. The existing water treatment plant and distribution system continuously receives raw water, and produces and distributes potable water throughout the City. Do not interrupt functions necessary to maintain operation of these facilities except as approved by the Engineer through review of the Contractor's Facility Outage Plan and as specified herein.
- C. Coordinate the Work to minimize interference and interruption of the normal operation of the Owner's existing facilities through proper planning and by making temporary connections.
  - 1. Except for allowable out-of-service periods as specified, maintain operation of sanitary and storm sewers, service laterals, catch basins, manholes, and similar facilities.
  - 2. Provide temporary pumps, piping, power, bulkheads, plugs, and other

devices that are required to keep such facilities in operation when these must be temporarily taken out of service in order to conduct the Work.

3. Notify the Engineer in writing 7 days in advance of the time it is necessary to take utilities out of service.
4. Notify public agencies and utility companies when service to customers will be temporarily interrupted to perform the Work and coordinate shutdowns with these agencies.

#### 1.5 ACCESS AND SIGN IN

- A. All deliveries, subcontractors, etc. shall sign in upon entry to City water facilities and the work site.
- B. The existing facility where Contractor's work is to be done will be occupied by the Owner throughout the construction period. Access to the site by the Owner's personnel is required for daily operations, maintenance, and administration. Additionally, regular traffic into and out of the site is to be expected.
- C. Contractor shall provide all necessary access to the Owner's personnel as required to safely and efficiently operate/maintain the facilities. At all times during the Contract duration, the Contractor is to provide the Owner's personnel and representatives safe and immediate access to all process control equipment.
- D. Contractor shall provide for unimpeded access for all delivery vehicles transporting materials, chemicals and equipment to the facility for the Owner's operations. Contractor shall coordinate the work to avoid interference with vehicular access to the existing plant site and normal operation of plant equipment and processes.

#### 1.6 FACILITY OUTAGE PLAN

- A. Prepare and submit a detailed Facility Outage Plan when removal of an existing facility from service is necessary to complete the Work.
- B. Submit the Facility Outage Plan to the Engineer for review and approval at least 20 days prior to the scheduled outage. Develop the Facility Outage Plan to satisfy the Work Sequence restrictions and conditions specified in this Section. Do not proceed with the any Work involving facility outages until the Outage Plan has been approved by the Engineer.
- C. The Facility Outage Plan shall describe, as applicable, a listing of existing facilities that will be taken out of service, methods for preventing bypassing of other treatment units, the length of time required to complete the operation, and the necessary personnel and equipment which will be provided in order to successfully complete the operation.
- D. Coordinate the outage schedule with the overall construction schedule.



## 1.7 CONNECTIONS TO EXISTING SYSTEM

- A. The Contractor is cautioned that water main connections to the existing water system involves disruptions to existing water facilities. Existing water facilities must remain in service at all times except as provided herein or approved by Engineer.
- B. Contractor shall coordinate shutdowns with City staff, providing a minimum of seven (7) days of prior notice. The Contractor shall schedule and coordinate the necessary shutdown of the existing water facilities with the City staff. The shutdown shall be held to a minimum and the Contractor shall have all materials required for the work at the job site prior to requesting the shutdown.
- C. As part of the requirements for submittal of progress schedules, Contractor is required to prepare and submit a written plan detailing the plan of operation, the materials, methods, schedule, equipment to be used, hours of operation, number of workers, and type of work to be conducted within the time period allowed for the disruption to existing water facilities. The plan shall be submitted to the City staff for approval twenty (20) days prior to planned work. Shutdowns shall not proceed without the review and approval of the City. No time extensions or damages will be considered for delays caused by failure of Contractor to plan, schedule and coordinate the work.
- D. The City of Vallejo will monitor all connections to the existing water lines and during flushing and testing. Contractor shall not operate any existing water valves. All water valve operation shall be conducted by the City of Vallejo. Contractor shall make all excavations and furnish, install and maintain such shoring, bracing, and sheeting, and all materials necessary for the pipeline and these connections. Provide all materials including pipe, valves, mechanical couplings, and concrete thrust blocks for a complete connection to existing pipe, and other related work as required for a complete installation, complete in place, ready for operation.

## **PART 2 - PRODUCTS (NOT USED)**

## **PART 3 - EXECUTION**

### 3.1 WORK COORDINATION

- A. Schedule and coordinate the overall Work and construction operations, including the work of subcontractors and the timely provision of products and supplies.
- B. Perform Work in an orderly and logical sequence. Individual specification Sections may identify specific requirements that are related to Work sequence.
- C. These types of constraints are not repeated in this Section but shall be followed by the Contractor.

### 3.2 WORK CONSTRAINTS

#### A. Work Hours and Days

1. Refer to City of Vallejo Section B, General Provisions 5-1.05B, Hours of Work. No work will be allowed outside of listed hours except as otherwise approved for the safety or protection of persons, as otherwise stated in the Contract Documents, or during disruption of water service when night work will be required.
2. Contractor will not perform of Work on a Sunday or any legal holiday defined by the City of Vallejo without written consent from the City.
3. Legal holidays are defined in Section B, General Provisions 1-1.255, Legal Holidays.
  - a. When a holiday falls on Sunday, the following Monday is recognized as the legal holiday. When a holiday falls on a Saturday, the preceding Friday is recognized as the legal holiday.

### 3.3 NIGHT WORK

- A. No work will performed at night, unless approved by the City. No additional compensation will be paid to the Contractor for night work.
- B. Contractor shall provide all lighting required for the proper and expeditious completion of the work.

### 3.2 WORK SEQUENCE

- A. The work sequence shall be as to minimize downtime and any facility outage.

**END OF SECTION**

**SECTION 01 31 19**  
**PROJECT MEETINGS**

**PART 1 - GENERAL**

1.1 SECTION INCLUDES

- A. Requirements for calling for and conducting meetings for the Work.

1.2 REFERENCED SECTIONS

- A. The following Section is referenced in this Section
  - 1. Section: 01 32 00 – Construction Schedule

1.3 GENERAL

- A. Project meetings and conferences are an important administration and communication requirement of all project participants. Meetings will be conducted throughout the course of the construction to address issues related to the Work, review and coordinate progress of the Work, and to discuss other matters of common interest to project participants.
- B. Meeting and conference locations and qualified participants will be determined by the Engineer and the Contractor based on the meeting agenda topics.

1.4 PRECONSTRUCTION CONFERENCE

- A. Prior to the start of construction, the Engineer will schedule a meeting of the Contractor, Owner, and their respective representatives. The general purpose of the meeting will be to establish working relationships, begin coordination of construction matters, discuss the Work, and to review the pertinent features of the Contract. The duration of the preconstruction conference will take approximately 4 hours.
- B. The agenda for the meeting will cover at least the following items, a more detailed agenda will be distributed at the meeting:
  - 1. Organization of the Contractor's forces and personnel, including subcontractors and materials suppliers.
  - 2. Lines of authority and channels and procedures for communication.
  - 3. Contractor's construction schedule.
  - 4. Processing of shop drawings and other data that will be submitted to Owner for review.
  - 5. Processing of change order requests and monthly applications for payment.
  - 6. Procedures for quality control, housekeeping and related matters.

- C. Contractor should be prepared to discuss the following topics:
  - 1. Preliminary construction schedule.
  - 2. Schedule of submittals and submittals needing short turn-around times.
  - 3. Schedule of Values for construction payments.
  - 4. Plans for mobilization, arrangement and use of staging and storage areas, use of site, location and arrangement of field offices, and site security.
  - 5. Identification of utilities affected by construction and procedures for communication.
- D. Minutes of Meeting
  - 1. The Engineer will compile minutes of the meeting and distribute copies to all participants.

## 1.5 PROGRESS MEETINGS

- A. Unless otherwise arranged, there will be a weekly progress meeting at a time and at an on-site location that is mutually agreed upon between the Contractor, Engineer and Owner.
  - 1. Meetings are to enable orderly project review during the progress of work.
  - 2. Engineer, Owner, Contractor's Superintendent, representatives of subcontractors, suppliers' representatives as may be needed, other Contractors working at the site, and other parties shall attend these meetings.
  - 3. Engineer will preside over the meeting and will compile and distribute minutes of the meeting.
- B. The purpose of the weekly meetings is to coordinate the efforts of all concerned to result in smooth and coordinated progress towards completion of the overall project.
- C. Contractor shall bring to each weekly meeting the updated 2-week "look ahead" schedule.
- D. The Contractor will be required to address the following items at the weekly meeting:
  - 1. Work completed last week.
  - 2. Work anticipated next week.
  - 3. Log of submittals and Requests for Information.
  - 4. Contract document deficiencies or questions noted during prior week.
  - 5. Schedule status and corrective measures and procedures that are planned to place the project back on schedule, if such action is necessary.

6. Report of any accidents, and any site safety issues that need to be addressed.
- E. Other agenda items to be discussed include:
1. Review and revise as necessary and approve minutes of previous meetings.
  2. Status of Requests for Information, Change Order Requests, submittals and shop drawings.
  3. Identify problems that impede planned progress.
  4. Other current business pertaining to the Work.
- F. Revision of Minutes
1. Unless published minutes are challenged in writing prior to the next regularly scheduled progress meeting, they will be accepted as properly stating the activities and decisions of the meeting.
  2. Persons challenging published minutes shall reproduce and distribute copies of the challenge to all indicated recipients of the particular set of minutes.
  3. Challenge to minutes shall be settled as priority item of "old business" at the next regularly scheduled meeting.

#### 1.6 PROGRESS SCHEDULE AND PROGRESS BILLING MEETINGS

- A. Once each month, a progress schedule and progress payment meeting will be conducted with the Engineer. The purpose of this meeting is to review the Progress Payment Estimate and reach agreement on the extent of the Work completed during the pay period.
- B. The meeting date will be scheduled in accordance with the Owner's deadline for submittal of Progress Pay Estimate.
- C. The updated progress schedule will also be reviewed at this meeting as described in Section 01 32 00. Schedule impacts, time extension requests, actual and anticipated schedule activity sequence/duration changes, delays, and other schedule-related topics will be discussed.
- D. The Engineer may require more frequent progress schedule meetings should there be schedule revisions that necessitate such a meeting.

#### 1.7 SUBMITTAL MEETINGS

- A. When required in the individual technical specification, or if requested by the Contractor or the Engineer, a meeting regarding a required submittal will be held to facilitate the timeliness of the submittal preparation and review process.

## 1.8 QUALITY ASSURANCE MEETINGS

- A. The Contractor or the Engineer may request a meeting prior to the start of a particular phase of the project to discuss how the Work shall be accomplished in accordance with the quality requirements of the Contract Documents, Codes, permits and industry standards. Quality assurance inspections and tests that are applicable to the Work will be discussed.

## 1.9 PRE-INSTALLATION MEETINGS

- A. When required in the individual specification, or if requested by the Contractor or Engineer, a pre-installation meeting will be held to review conditions of the installation, installation procedures, and coordination with related work. This meeting will be scheduled to take place in advance of installation of the equipment or as required in the technical specifications.

## 1.10 PRE-SUBSTANTIAL COMPLETION MEETING

- A. Thirty (30) days prior to the estimated substantial completion, the Owner, Engineer, Contractor, and appropriate subcontractors will meet to review maintenance manuals, guarantees, closeout submittals, bonds, and service contracts for materials and equipment.

## 1.11 SPECIAL MEETINGS

- A. Any time during progress of the Work, the City shall have the authority to require the Contractor and any subcontractor, suppliers, or service providers to attend job-site conferences on matters which require immediate or special attention. Any notice of such conference shall be duly observed and complied with by the Contractor and subcontractors, suppliers, or service providers without extra cost to Owner.

## 1.12 POST CONSTRUCTION GUARANTY PERIOD MEETING

- A. Contractor shall meet with a representative of the Owner and the Engineer approximately eleven (11) months after the date of Substantial Completion to inspect the Work. Meeting will be arranged by the Owner at least seven (7) days before meeting. The Contractor will require attendance of its Project Manager/Superintendent, appropriate manufactures and appropriate subcontractors.

## **PART 2 - PRODUCTS (NOT USED)**

## **PART 3 - EXECUTION (NOT USED)**

## **END OF SECTION**

## SECTION 01 32 00

### CONSTRUCTION SCHEDULE

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. Procedures for preparing and revising the construction schedule used for planning and managing construction activities.

##### 1.2 REFERENCED SECTIONS

- A. The following Sections are referenced in this Section
  - 1. Section A – Special Provisions
  - 2. Section B – General Provisions

##### 1.3 COORDINATION WITH GENERAL CONDITIONS

- A. Prepare and submit a Preliminary Schedule in accordance with the requirements of Section B – General Provisions and any Supplementary Conditions specified in Section A – Special Provisions.
- B. The Contractor's execution of the Work shall begin based on the Preliminary Schedule accepted by the Engineer. As Work progresses, the Schedule shall be updated and resubmitted in accordance with the requirements of this Section.

##### 1.4 USE OF SCHEDULE

- A. The schedule and subsequent updates provides a basis for determining the progress status of the project relative to the completion time, specific dates, and for determining the acceptability of the Contractor's progress payment estimates.

#### PART 2 - PRODUCTS (NOT USED)

#### PART 3 - EXECUTION

##### 3.1 DESCRIPTION

- A. The Contractor shall prepare a time scale network schedule using a critical path method. A general guide for preparing such a schedule is contained in "The Use of CPM in Construction, a Manual for Contractors," published by the Associated General Contractors of America.
  - 1. The schedule shall depict all significant construction activities and all items of work listed in the breakdown of contract prices submitted by the Contractor in accordance with Section B – General Provisions.
  - 2. Indicate assigned values for each part of the work.

3. Indicate dependencies between activities to established the effect the progress of any one activity has on the schedule.
- B. Completion time shall be shown on the schedule. Activities making up the critical path shall be identified.
- C. No activity on the schedule shall have a duration longer than 21 days or assigned value greater than \$50,000, except activities comprising only fabrication and delivery, which may extend for more than 21 days.
  1. Activities that exceed these limits shall be divided into more detailed components.
  2. The scheduled duration of each activity shall be based on the work being performed during the normal 40-hour workweek with allowances made for legal holidays and normal weather conditions.

### 3.2 SUBMITTAL PROCEDURES

- A. Submit Preliminary Schedule in accordance with Section B – General Provisions.
- B. Submit the following items:
  1. Two copies of the project schedule formatted to fit 11x17 inch sheets.
  2. Electronic file of the schedule in .pdf and Microsoft Project formats (or approved equals).
- C. The Engineer will review the Preliminary Schedule to ascertain compliance with specified project constraints, compliance with milestone dates, reasonableness of durations and sequence, accurate inter-relationships and completeness.
- D. Review comments will be transmitted to Contractor following completion of preliminary review.
- E. Revise and resubmit schedule in accordance with written comments, or request joint meeting to resolve objections.
- F. When schedule reflects the Engineer and Contractor's agreement of project approach and sequence, schedule will be accepted as the Base Schedule. Use the accepted Base Schedule for planning, organizing and directing the work and for reporting progress.

### 3.3 UPDATING THE SCHEDULE

- A. Submit an updated schedule with each Application for Payment.
- B. Progress payment requests may not be processed by Engineer if updated schedule has not been submitted or if update is found unacceptable.
- C. Prepare update using most recent accepted version of schedule including:
  1. Actual start date of activities that have been started.
  2. Actual finish date of activities that have been completed.



3. Percentage of completion of activities that have been started but not finished.
  4. Actual dates on which milestones were achieved.
- D. Submit narrative report in conjunction with updated schedule describing:
1. Activities added to or deleted from schedule. Identify added activities in manner distinctly different from original activity designations.
  2. Changes in sequence or estimated duration of activities.
  3. Current or anticipated problems and delays affecting progress, impact of these problems and delays and measures taken to mitigate impact.
  4. Assumptions made and activities affected by incorporating change order work into the schedule.

### 3.4 REVISIONS TO SCHEDULE

- A. Submit revised schedule within five (5) days when:
1. Delay in completion of any activity or group of activities indicates an overrun of the contract time or milestone dates by twenty (20) working days or five (5%) percent of the remaining duration, whichever is less.
  2. Delays in submittals, deliveries, or work stoppages are encountered making necessary the replanning or rescheduling of activities.
  3. The schedule does not represent the actual progress of activities.
  4. Any change to the sequence of activities, the completion date for major portions of the work, or when changes occur that affect the critical path.
  5. Contract modification necessitates schedule revision; submit schedule analysis of change order work with cost proposal.
- B. Submit printed copies of the revised schedule and electronic file.
- C. Make revisions on most recently accepted version of schedule.

### 3.5 THREE WEEK "LOOK AHEAD" SCHEDULE

- A. In addition to the overall Construction Schedule, provide a "Look Ahead" schedule in bar chart format. Show work activities undertaken in the preceding week and the work activities that will be undertaken during the upcoming three weeks.
- B. Prepare the Look Ahead schedule weekly and submit to the Engineer at the weekly construction progress meeting.

### 3.6 SCHEDULE OF VALUES

- A. The Contractor shall prepare and submit to the Engineer a Schedule of Values covering each lump sum item for each item of building work. The Schedule of

Values, showing the value of each kind of work, shall be acceptable to the Engineer before any partial payment estimate is prepared.

- B. The sum of the listed items in the Schedule of Values shall equal the contract lump sum price for each item of building work. Bonds, construction facilities, and other such items shall not be paid for under the building work items, and shall be included in the mobilization bid item for the entire project.

**END OF SECTION**

## SECTION 01 33 00

### SUBMITTALS

#### PART 1 - GENERAL

##### 1.1 SUMMARY

- A. Submittals covered by these requirements include manufacturers' information, shop drawings, test procedures, test results, samples, requests for substitutions, and miscellaneous work-related submittals. Submittals shall also include, but not be limited to, mechanical equipment and systems, materials, fabricated items, piping and valves.
- B. Furnish drawings, specifications, descriptive data, certificates, samples, tests, methods, schedules, manufacturer's installation instructions and other information to fully demonstrate that the materials and equipment to be furnished and the methods of work comply with the provisions and intent of the Contract Documents.
- C. Requirements for furnishing submittals (except samples) via e-mail in adobe .pdf format.

##### 1.2 CONTRACTOR'S RESPONSIBILITIES

- A. Contractor shall be responsible for the accuracy and completeness of the information contained in each submittal and shall assure that the materials and equipment incorporated into the Work, or the methods of performing the Work shall be as described in the accepted submittals.
- B. Verify that all features of all products conform to the specified requirements. Submittal documents shall be clearly edited to indicate only those items, models, or series of equipment that are being submitted for review. All extraneous materials shall be crossed out or otherwise obliterated.
- C. Ensure that there is no conflict with other submittals and notify the Engineer in each case where his submittal may affect the work of another contractor or the Owner. Coordinate submittals among subcontractors and suppliers including those submittals complying with unit responsibility requirements specified in applicable technical sections.
- D. Coordinate submittals with the work so that work will not be delayed. Coordinate and schedule different categories of submittals, so that one will not be delayed for lack of coordination with another. No extension of time will be allowed because of failure to properly schedule submittals.
- E. Do not proceed with work related to a submittal until the submittal process is complete and the submittal has received a response "No Exceptions Taken" or "Make Corrections Noted."

- F. Certify on each submittal document that the Contractor has reviewed the submittal, verified field conditions, and complied with the contract documents.
1. Include a copy of the specification section with addendum updates, all referenced and applicable sections, and each paragraph check-marked to indicate specification compliance or marked to indicate requested deviations from specification requirements.
    - a. Use check marks (✓) to denote full compliance with a paragraph as a whole.
    - b. If deviations from the specifications are indicated and, therefore requested by the Contractor, underline each deviation and denote by a number in the margin to the right of the identified paragraph.
    - c. The remaining portions of the paragraph not underlined will signify compliance on the part of the Contractor with the specifications.
    - d. Include a detailed, written justification for each deviation.
    - e. Failure to comply with this paragraph is sufficient cause to reject the entire submittal.

### 1.3 REVIEW COSTS

- A. The Owner's cost for review of submittals for the same proposed materials, equipment or work will be apportioned as follows:
1. The cost of review of the initial submittal and the first revised submittal will be borne by the Owner.
  2. The cost to review all additional revised submittals after the first revised submittal will be charged to the Contractor. The cost of review shall include, without limitation, administrative, design and engineering activities directly related to review of submittals.

### 1.4 CATEGORIES OF SUBMITTALS

- A. General
1. Submittals fall into two general categories;
    - a. Submittals for review and comment require action by the Engineer.
    - b. Submittals that are primarily for information only do not require Engineer's approval.
- B. Submittals for Review and Comment
1. Transmit submittals for review and comment to the Engineer. The Engineer will review the submittal for compliance with the Contract requirements and will provide written comments regarding acceptability.

C. Submittals for Information Only

1. Where specified, furnish submittals to the Engineer for information only. The Engineer may, at the Engineer's option, review and comment on any product data.
2. Incomplete or inadequate product data will be returned to the Contractor for resubmittal.

1.5 TRANSMITTAL PROCEDURE

A. General

1. Transmit submittals regarding material and equipment under cover of a Shop Drawing/Transmittal Form. Contractor may provide transmittal form or use the example located at the end of this Section.
2. Use a separate form for each specific item, class of material, equipment, and items specified in separate, discrete sections, for which the submittal is required.
3. Identify submittal documents common to more than one piece of equipment with all the appropriate equipment numbers.
4. Make submittals for various items with a single form when the items taken together constitute a manufacturer's package or are so functionally related that expediency indicates checking or review of the group or package as a whole.
5. Assign a unique sequential number on the transmittal form accompanying each item submitted.
  - a. Use the following format for original submittal numbers: "XXX"; where "XXX" is the sequential number assigned by the Contractor.
  - b. Use the following format for resubmittals: "XXX-Y"; where "XXX" is the originally assigned submittal number and "Y" is a sequential letter assigned for resubmittals, i.e., A, B, or C being the 1st, 2nd, and 3rd resubmittals, respectively. Submittal 25B, for example, is the second resubmittal of submittal 25.

B. Electronic Submission

1. Electronic .pdf format submittals are preferred.
2. Prepare submittals and Shop Drawings in electronic .pdf format including half-sized and full-sized drawings, catalog information and other required submittal information. Transmit electronic submittals by email to the Engineer.
3. Break down submittals that are larger than 4 megabytes into smaller sections, using logical division points to create sections.

4. Hard copy submittals are an acceptable alternative to electronic .pdf submittals if the Contractor demonstrates, to the satisfaction of the Engineer, that electronic .pdf format presents a hardship.

C. Deviation from Contract

1. If the Contractor proposes to provide material, equipment, or method of work that deviates from the project manual, so indicate under "Proposed Deviations" on the transmittal form accompanying the submittal copies.

D. Submittal Completeness

1. Submittals that do not have all the information required to be submitted, including deviations, are not acceptable and will be returned without review.

## 1.6 SUBMITTAL CONTENT

A. Prepare submittals with information required by individual Specification Sections.

B. Shop Drawings:

1. Develop project-specific, scaled drawings to fully establish materials and products that will be provided and their relationship to other products that will be furnished and installed. Do not utilize reproductions of the Contract Documents as the basis for the submittal.
2. Identify products, assemblies, equipment and systems.
3. Provide equipment identification numbers or tag numbers, wiring diagrams, and setting diagrams.
4. Identify critical dimensions.

C. Product Data:

1. Provide information necessary to demonstrate conformance with the specified requirements. Include performance curves, specifications, and wiring diagrams.
2. Product data may consist of manufacturer's standard catalog information and data sheets, marked to indicate the specific products that will be provided.
3. Provide supplemental information as necessary to fully demonstrate how products will be modified from the manufacture's standard products to meet the specification requirements.

D. Manufacturer's Instructions: Written or published information that establishes the manufacturer's recommendations, guidelines and procedures for handling and installation of products, equipment and assemblies.

E. Samples: Mount, display or package samples in a manner that will facilitate review and establish workmanship and quality of materials. Arrange to deliver samples to Engineer.

## 1.7 SUBMITTAL INDEX

- A. Within 30 days of the Notice to proceed, submit a list, by specification section, of all submittals to be submitted.
- B. Update and resubmit the submittal index on a monthly basis where additional submittals are identified, or as necessary

## 1.8 REVIEW PROCEDURE

### A. General

- 1. Submittals are specified for those features and characteristics of materials, equipment, and methods of operation that can be selected based on the Contractor's judgment of their conformance to the specified requirements. Other features and characteristics are specified in a manner that enables the Contractor to determine acceptable options without submittals. The review procedure is based on the Contractor's guarantee that all features and characteristics not requiring submittals conform as specified.
- 2. Review does not extend to means, methods, techniques, sequences or procedures of construction, or to verifying quantities, dimensions, weights or gages, or fabrication processes (except where specifically indicated or required by the Project Manual) or to safety precautions or programs incident thereto.
- 3. Review of a separate item, as such, will not indicate approval of the assembly in which the item functions.
- 4. When the Contract Documents require a submittal, submit the specified information as follows:
  - a. Submittals for Review and Comment:
    - 1) Submit one electronic pdf submittal via e-mail.
    - 2) If hard copies are submitted, submit three hard copies and one electronic copy of all submitted information plus one reproducible original for review.
  - b. Submittals for Information Only:
    - 1) Submit one electronic pdf submittal via e-mail.
    - 2) If hard copies are submitted, submit three copies of all submittal information for review, unless otherwise specified.

### B. Submittals for Review and Comment

- 1. Unless otherwise specified, the Engineer will review the submittal and return a stamped pdf via e-mail.
- 2. If hard copies were submitted, the Engineer will return 2 copies of a marked-up reproducible original. The reproducible original will be retained by the Engineer.

3. The returned submittal shall indicate one of the following actions:
  - a. If the review indicates that the material, equipment or work method complies with the project manual, submittal copies will be marked "NO EXCEPTIONS TAKEN." In this event, the Contractor may begin to implement the work method or incorporate the material or equipment covered by the submittal.
  - b. If the review indicates limited corrections are required, copies will be marked "MAKE CORRECTIONS NOTED." The Contractor may begin implementing the work method or incorporating the material and equipment covered by the submittal in accordance with the noted corrections. Where submittal information will be incorporated in O&M data, provide a corrected copy.
  - c. If the review reveals that the submittal is insufficient or contains incorrect data, copies will be marked "AMEND AND RESUBMIT." Except at its own risk, the Contractor shall not undertake work covered by this submittal until it has been revised, resubmitted and returned marked either "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED."
  - d. If the review indicates that the material, equipment, or work method does not comply with the project manual, copies of the submittal will be marked "REJECTED - SEE REMARKS." Submittals with deviations that have not been identified clearly may be rejected. Except at its own risk, the Contractor shall not undertake the work covered by such submittals until a new submittal is made and returned marked either "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED."

C. Submittals for Information Only

1. Submittals for Information Only, if complete and adequate, will be returned marked "ACCEPTED FOR RECORD".

## 1.9 PROCESSING TIME

- A. Prepare submittals and transmit to Engineer for review in sufficient time to allow Engineer's review; manufacture, fabrication or assembly of materials and systems; and shipping of material to the site in time for installation in accordance with the Contractor's schedule.
- B. Engineer's time for review will begin upon receipt of a complete and comprehensive submittal containing all required information.
- C. Engineer will review submitted information and transmit a response to Contractor within 20 days after receipt except extensive electrical and instrumentation submittals will require a 30 day review period.
  1. In some instances, review times for specific submittals may be modified by the individual specification Section.



2. Resubmittals will be subject to the same review time.
3. No adjustment of Contract Time or Contract Price will be allowed due to delays in the progress of the Work that are caused by rejected submittals and subsequent resubmittals.

#### 1.10 EFFECT OF REVIEW OF CONTRACTOR'S SUBMITTALS

- A. The purpose of submittals is to demonstrate how Contractor intends to conform to the Contract Documents and design concepts. Engineer is entitled to rely upon the accuracy and completeness of designs, calculations, or certifications made by licensed professionals whether or not a stamp or seal is required by the Contract Documents.
- B. Review of contract drawings, methods of work, or information regarding materials or equipment the Contractor proposes to provide, does not relieve the Contractor of its responsibility from fulfilling the requirements of the Contract, proper operation of the equipment, and correction of defective work and shall not be regarded as an assumption of risks or liability by the Engineer or the Owner.
- C. A mark of "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED" means that the Owner has no objection to the Contractor, upon its own responsibility, using the plan or method of work proposed, or providing the materials or equipment proposed.
- D. The Engineer's review of shop drawings, samples, or test procedures will be only for conformance with design concepts and for compliance with information given in Contract Documents. The Engineer's review does not extend to:
  1. Accuracy of dimensions, quantities, or performance of equipment and systems designed by Contractor.
  2. Contractor's means, methods, techniques, sequences, or procedures except when specified, indicated on the Drawings, or required by Contract Documents.
  3. Safety precautions or programs related to safety which shall remain the sole responsibility of the Contractor.

#### 1.11 SUBSTITUTIONS OR "OR EQUAL" ITEMS

- A. Named or Sole Source Times
  1. Whenever materials or equipment are specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier with the words "or equal", the naming of the item is intended to establish the type, function, and quality required.
  2. Unless the name designated a "sole source" and/or is followed by words indicating that no substitution is permitted, materials, or equipment of other Suppliers may be accepted by Engineer if sufficient information is submitted by Contractor to allow Engineer to determine that the material or equipment proposed is equivalent or equal to that named.

## B. Initiating Substitution Request

1. To propose to furnish or use a substitute item of material or equipment, Contractor shall submit formal request per Owner requirements.
2. Submit request to Engineer for acceptance, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified.
3. State that the evaluation and acceptance of the proposed substitute will not prejudice Contractor's achievement of Substantial Completion on time, whether acceptance of the substitute for use in the Work will require:
  - a. A change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for Work on the Project) to adapt the design to the proposed substitute
  - b. Incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty.
4. Identify all variations of the proposed substitution from that specified
5. Identify available maintenance, repair, and replacement service
6. Provide an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change
7. The Owner or Engineer may require Contractor to furnish at Contractor's expense additional data about the proposed substitute.
8. If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, Contractor may propose to furnish or utilize a substitute means, method, sequence, technique or procedure of construction. Submit sufficient information to allow Engineer to determine that the proposed substitution is equivalent to that indicated or required by the Contract Documents.

## C. Review Procedure

1. Requests for substitutions may only be submitted by the Contractor.
2. All requests for substitution shall be submitted within thirty (30) calendar days after the date of Notice to Proceed unless the Owner has agreed in writing to a later submittal date and the Contractor agrees to comply with all conditions of the Owner for the late submittal.
3. The Owner's agreement to a later submittal date shall not be construed as favorable review or acceptance of the proposed "or equal" substitution.
4. The Engineer will be respond to all requests for substitutions within thirty (30) days unless the Engineer notifies the Contractor within fourteen (14) days after receipt of the proposed "or equal" substitution submittal that more time is needed to complete a thorough review.

5. The Engineer and Owner will be the sole judge of acceptability, and no proposed “or equal” substitution item or service will be ordered, installed or utilized without Engineer’s prior written acceptance that will be evidenced by either a Change Order or an accepted Shop Drawing.
6. As a condition of acceptance, the Owner may require Contractor to furnish, at Contractor’s expense, a special performance guarantee or other surety with respect to a proposed “or equal” substitution item or service.
7. Contractor shall pay all costs for redesign required by the implementation of the proposed substitute.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

## SUBMITTAL TRANSMITTAL

Submittal Description \_\_\_\_\_

Priority Level:  Low     Medium     High     **On Critical Path**

<b>Submittal No.</b>	
<input type="checkbox"/> 1st Submission	<input type="checkbox"/> Re-Submittal
Spec Section	
Dwg/Detail No.	

Owner:	<b>Routing</b>	<b>Date Sent</b>	<b>Date Received</b>
Project Name:	Contractor/Engineer		
	Engineer/Contractor		
Contractor:			

We are sending you:     Attached     Under separate cover via \_\_\_\_\_  
 Submittals for review and comment  
 Product Data for information only \_\_\_\_\_

No. Copies	Description	Manufacturer	Reviewer Action	Reviewer Initials

<p>The Action Designated Above is in Accordance with the Following Legend:</p> <p>A – No Exceptions Taken          B – Make Corrections Noted          C – Amend and Resubmit          D – Rejected          E – Review not Required</p>	<p><b>CONTRACTOR:</b> Must certify one of the following statements pertaining to the transmittal or submittal sent for review:</p> <p><input type="checkbox"/> As the General Contractor for this project we certify that the material or equipment contained in this submittal meets all the requirements, including coordination with all related work specified (no exceptions)</p> <p><input type="checkbox"/> As the General Contractor for this project we certify that the material or equipment contained in this submittal meets all the requirements specified except for the attached deviations.</p>
--	--

Comments:

Certified by: \_\_\_\_\_  
 (Contractor's Signature)

## SECTION 01 34 00

### REQUESTS FOR INFORMATION AND CLARIFICATIONS

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. Procedures for submitting requests for information and clarifications when Contractor discovers apparent conflicts, omissions, or errors in the Contract Documents, or upon having any questions concerning interpretation of the Contract Documents.

##### 1.2 PROCEDURES

###### A. Notification:

1. Notify the Engineer in writing and request interpretation, clarification, or additional detailed instructions concerning the Work.
2. Ask for clarification or request information immediately upon discovery, but no less than seven working days prior to the start date of the activities related to the clarification, based on the latest updated version of the official contract schedule.

###### B. Form:

1. Submit requests for clarification and/or additional information in writing to the Engineer using the Request for Information (RFI) form provided at the end of this Section.
2. Provide a detailed statement indicating the nature of the information requested. Reference specific Drawings and Specifications as appropriate.
3. Limit each written request to one topic.
4. Electronic .pdf format RFIs are preferred. Prepare RFIs and any attachments in electronic .pdf format. Transmit electronic RFIs via email to the Engineer. Break down RFIs that are larger than 4 megabytes into smaller sections, using logical division points to create sections.
5. Hard copy RFIs are an acceptable alternative to electronic .pdf RFIs if the Contractor demonstrates, to the satisfaction of the Engineer, that electronic .pdf format presents a hardship. If hard copies are used, furnish six (6) copies of each RFI.

###### C. Numbering:

1. Use consecutive numbers for each new form submitted. When RFI's are re-submitted to request additional information on the same topic, add a

letter A, B, C, etc. to the numbering system for each subsequent RFI until the subject is resolved.

### 1.3 REASONS FOR SUBMITTAL

- A. Submit an RFI if one of the following conditions occur:
  - 1. An unforeseen condition or other circumstance that is not described in the Contract Documents.
  - 2. An apparent conflict or discrepancy between portions of the Contract Documents.
  - 3. An apparent omission from the Contract Documents.
  - 4. Information presented in the Contract Documents is unclear or additional details are needed to undertake the Work.
  - 5. In an untimely manner without proper coordination and scheduling of work or related trades.
  - 6. Cost arising from the failure to submit an RFI for the above conditions shall be borne by the Contractor.

### 1.4 RESPONSE TIME

- A. The Engineer will resolve the RFI and issue instruction to the Contractor within 14 calendar days.
- B. Response time may need to be lengthened; or shortened for emergency situations as mutually agreed upon by all parties.
- C. Do not proceed with the affected work before receipt of a response from the Engineer. Should the Contractor elect to proceed with the Work affected by the RFI, any portion of the Work that is not done in accordance with the Engineer's interpretation, clarifications, instructions or decisions will be subject to removal or replacement at the Contractor's expense.

### 1.5 REJECTIONS

- A. RFI's submitted by the Contractor may be rejected by the Engineer for the following reasons:
  - 1. The RFI is submitted as a substitute for a submittal.
  - 2. Under the pretense of a Contract Documents discrepancy or omission without thoroughly reviewing the documents.
  - 3. In a manner that suggests that specific portions of the Contract Documents are assumed to be excluded, or be taken as an isolated portion of the Contract Documents in part rather than whole.

1.6 **ADDITIONAL DETAILED INSTRUCTIONS (CLARIFICATIONS)**

- A. The Owner may furnish additional detailed written instructions to further explain the Work and these instructions shall become part of the Contract Documents. Clarifications will be issued using the above RFI system.
- B. When, in the opinion of the Contractor, the Engineer's response in the RFI constitutes additional work beyond the scope of the Contract, the Contractor shall notify the Engineer in writing following receipt of the RFI and prior to initiating the Work affected by the RFI. The process for submitting claims of additional Work shall be followed as defined in the General Conditions. Lack of compliance with this notification requirement will cause Contractor to forfeit any claim for additional compensation or extension of the schedule.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

**REQUEST FOR INFORMATION**

**RFI No.: XXX**

Owner: \_\_\_\_\_

Project: \_\_\_\_\_

Contractor: \_\_\_\_\_ Engineer \_\_\_\_\_

RFI Generated by:  Contractor  Other

Priority Level:  Low  High  On Critical Path

Is there a Cost Impact associated with this RFI?  Yes  No  Possibly

Is there a Time Impact associated with this RFI?  Yes  No  Possibly

**RFI Title:** \_\_\_\_\_

Reference: Spec: \_\_\_\_\_ Sheet: \_\_\_\_\_

**Requested Information:**

Signed: \_\_\_\_\_

Date: \_\_\_\_\_

**Response**

Signed: \_\_\_\_\_

Date: \_\_\_\_\_



## SECTION 01 35 24

### PROJECT SAFETY REQUIREMENTS

#### PART 1 - GENERAL

##### 1.1 DESCRIPTION

###### A. Work Included:

1. Be solely and exclusively responsible for maintaining job-site safety and compliance with all pertinent Groups and Articles set forth in Title 8, California Code of Regulations (Cal/OSHA), and Title 29, Code of Federal Regulations (OSHA; where applicable).
2. Contractor shall be the Creating, Controlling, and Correcting Employer for purposes of compliance with Cal/OSHA's multi-employer worksite rule (8 CCR 336.10) for itself and all of its site workers.
3. Meet with the Engineer prior to commencement of the Work to review the project safety requirements as applicable to the Contractor's procedures and to develop mutual understandings relative to compliance with the safety requirements and administration of the Contractor's project safety programs.

###### B. Site Activities

1. Control all harmful dusts, fumes, mists, vapors and gases exposures for all job-site workers, regardless of employer, so that respective permissible exposure limits (PEL) are not met or exceeded. Such hazards are contained in Title 8, California Code of Regulations (Cal/OSHA) § 5155 - Airborne Contaminants; Article 110 - Regulated Carcinogens; Construction Safety Order 1529 - Asbestos; and Construction Safety Order 1530.1 - Control of Employee Exposures from Dust-Generating Operations Conducted on Concrete or Masonry Materials.
2. Physically delineate and assign work areas and restrict access by unauthorized persons during the course of Work. See Section 01 14 00 for sign-in requirements.
3. Contractor shall not allow unsafe tools, equipment, or machinery to be brought onto the project. Unsafe tools, etc. shall be considered as those tools which are in need of repair, replacement, lacking proper maintenance, or are unsuitable for the task.
4. Contractor shall assemble, install, erect, and prepare safety related equipment, devices, and products in accordance with manufacturer specifications and recommendations. Manufacturer documentation shall be provided to the Engineer upon request.

5. Comply with the Federal Drug Free Workplace Act, Department of Transportation (DOT) testing regulations (49 CFR Part 32), CA State Vehicle Code (Section 34520) and all applicable legally valid rules and regulations regarding drug and alcohol misuse, including consumption, sale or possession.
  6. Contractor personnel are specifically prohibited from bringing firearms, explosive devices, or other dangerous weapons on City property or while engaged in contract Work.
  7. Contractor shall provide safe access for construction inspectors and other authorized City employees in order to inspect or review Work in progress.
- C. Referenced Sections
1. Section 01 14 00 – Work Sequence and Constraints
  2. Section 01 33 00 – Submittals

## 1.2 DEFINITIONS

- A. Where used in the Contract Documents, the following words and terms shall have the meanings indicated. The meanings shall be applicable to the singular and plural of the words and terms.
- B. Competent Person: As defined in Section 1504 of the Construction Safety Orders, Title 8, California Code of Regulations, 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 the authorization to take prompt corrective measures to eliminate them.
- C. Confined Spaces: Shall mean any space not designed for human occupancy and having the characteristics identified in Title 8, California Code of Regulations (Cal/OSHA), Article 108 - Confined Spaces.
- D. Excavation: Any man-made cut, cavity, trench, or depression in an earth surface, formed by earth removal.
- E. Hazardous Substance: Defined as any substance included in the list (Director's List) of hazardous substances prepared by the Director, California Department of Industrial Relations, pursuant to Labor Code Section 6382. Includes hazardous waste as defined herein.
- F. Exposure Assessment: An assessment of potential chemical and physical hazards encountered on the project site.
- G. LOTO: Lock-Out Tag-Out as defined by Title 8, California Code of Regulations, § 3314.
- H. OPU: Order Prohibiting Use. A tag affixed to a dangerous workplace condition or practice which constitutes an imminent hazard to workers. An OPU tag may be posted prohibiting entry to the worksite, or part of the worksite, use of machinery, devices, or apparatus.

- I. Safe Work Notice, or Safe Work Permit: A Notice or Permit required to be completed by the Contractor and City staff at water treatment plants and wastewater facilities. The Notice/Permit communicates work to be performed, the areas and potential hazards.
- J. Trench: A narrow excavation (in relation to its length) made below the surface of the ground. In general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than 15 feet. If forms or other structures are installed or constructed in an excavation so as to reduce the dimension measured from the forms or structure to the side of the excavation to 15 feet or less, (measured at the bottom of the excavation), the excavation is also considered to be a trench.

### 1.3 SUBMITTAL OF PLANS AND PROCEDURES

#### A. General:

- 1. Prepare and submit in accordance with the applicable provisions of Section 01 33 00- Submittals.
- 2. Allow 20 work days minimum for the Engineer's review plus transit time to and from the City offices.
- 3. The plans and procedures identified in this Article 1.3 shall be kept current. New hazards, mitigations, or procedures identified during the course of the Work shall be submitted as revisions to the identified plans and procedures within 5 days of being identified.
- 4. One copy of each plan and procedure submitted will be returned marked "Reviewed", as described below, or "Acknowledged Receipt" or "Returned without Review" as described in Section 01 33 00 Submittals.
  - a. "Reviewed" indicates that the plan has been reviewed for the protection of City employees in the Contractor work zones. Notations entered by the City will be applicable to City employees only.
  - b. Work described under the plan shall not begin until the submitted plan has been returned as "Reviewed" or "Acknowledged Receipt".

#### B. Project Safety and Health Plan:

- 1. Submit prior to start of the Work for the Engineer's review a Project Safety and Health Plan for the Work to be performed only if actual, potential, or anticipated hazards include: a) hazardous substances; b) fall protection issues; c) confined spaces; d) trenches or excavations; or, e) lockout/tagout. If the actual, potential, or anticipated hazards do not include one or more of these five hazards, no Plan is required.
- 2. Submit prior to start of Work the name of individual(s) who has been designated as:
  - a. Contractor's Project Safety and Health Representative
  - b. Submit principal and alternate Competent/Qualified Persons for:

- 1) scaffolding;
  - 2) fall protection systems and equipment; and
  - 3) employee protective systems
- c. Qualified person to conduct and take samples and air measurements of known or suspect hazardous substance for personnel and environmental exposure. Sample results shall be submitted to the Engineer in writing and electronic format.
3. Plan shall include an emergency action plan in the event of an accident, or serious unplanned event (e.g.: gasoline break, fire, structure collapse, etc.) that requires notifying any responsive agencies (e.g.: fire departments, PG&E, rescue teams, etc).
- C. Confined Space Operating Procedures:
1. Submit confined space operating and rescue procedures to the Engineer for review. Procedures shall conform to the applicable provisions of Sections 5156 through 5158, Title 8, California Code of Regulations.
  2. If a pipeline is required to be entered, the Project Safety and Health Plan shall include a description of a safe access and rescue plan.
- D. Fall Protection Procedures
1. Submit fall protection procedures to the Engineer for review prior to any work at heights at the jobsite.
  2. The fall protection plan shall address control of fall hazards for any work occurring at heights greater than 7½ feet.
  3. Procedures shall conform to applicable provisions of Sections 1669 through 1671.2, Title 8, California Code of Regulations.
  4. The plan shall address scaffolds when used on site.
  5. The plan shall address manlift equipment when used on site.
  6. The plan shall address rescue of workers who may fall.
- E. USA Marking Record
1. Submit utility locate and marking (USA marking) number and documents, and verification of markings. Make available to the Engineer the record of all subsequent utility marking events and meetings on the project.
- F. Accident Reports
1. Upon request of the Engineer, complete and submit an accident investigation report. See Article 3.3.
- G. Electrical Safety Plan
1. Submit a detailed plan for worker protection from hazardous voltages on pipelines and appurtenances as a result of electromagnetic induction from nearby electrical transmission lines and short-circuits at the high-voltage lattice steel towers and tubular steel poles.

2. The safety plan shall include the following details at minimum:
  - a. Procedures to limit worker contact with the bare metal on the pipeline and appurtenances, either through direct body contact or via equipment which has a direct metallic path to the pipeline (e.g., a crane or backhoe using metallic slings or chains).
  - b. Procedures to avoid placing equipment and materials near any PG&E lattice towers or tubular steel poles.
  - c. Details of protective equipment and clothing to be used when worker contact with the pipeline is unavoidable.
  - d. Temporary pipeline grounding and bonding details to be used during construction.
  - e. Procedures for the installation of temporary pipeline grounding and bonding by qualified personnel (e.g., electrician).
  - f. Procedures to notify all persons on the job site of the electrical hazard.
  - g. Procedures to limit access to the pipeline to the public and unqualified personnel.

#### 1.4 PROJECT SAFETY OVERSIGHT

- A. A non-working superintendent shall be on-site at all times to oversee and enforce all of the requirements of this section.

#### 1.5 TRAINING REQUIREMENTS

- A. Ensure that all personnel who, as the result of work on this contract, will likely be exposed to hazardous conditions or hazardous substances at the site have received the appropriate training for the hazards they may encounter. Establish minimum training requirements and do not allow untrained workers to enter or perform Work at the site.

#### 1.6 FIRE PREVENTION AND PROTECTION

- A. Perform all Work in a fire-safe manner and supply and maintain on the site adequate fire-fighting equipment capable of extinguishing incipient fires. Comply with applicable federal, local, and state fire-prevention regulations. Where these regulations do not apply, applicable parts of the National Fire Prevention Standards for Safeguarding Building Construction Operations (NFPA No. 241) shall be followed.

## **PART 2 - NOT USED**

## **PART 3 - EXECUTION**

### **3.1 PROJECT SAFETY AND HEALTH PLAN**

#### **A. General:**

1. A copy of the Contractor's Project Safety and Health Plan shall be available at the construction site while excavations, confined spaces, fall protection, or LOTO are being performed, or hazardous substances are present
2. Contractor's Project Safety and Health Plan shall apply to all personnel working at, or visiting the site including, but not limited to, Contractor's employees, suppliers, truckers, and City personnel.
3. The Contractor's Project safety and health representative shall verify that all persons are in compliance with applicable safety and health requirements, and take action to ensure compliance where deficiencies are identified.
4. Provide the Engineer a minimum of 48 hours advance notice of time and location of pre-entry briefings so that City personnel, who are required to enter the Project, may attend. A record of attendance shall be provided to the Engineer within 24 hours after the briefing.
5. Contractor shall take representative personnel air samples for employee exposure to dust, fume, mist, and vapors of materials and substances brought onto the project or generated during the course of Work on the project. See paragraph B. below.
6. Exercise extreme care when handling or disposing of materials or substances that are listed as hazardous substances in Section 339 of Chapter 3.2, California Occupational Safety and Health Regulations, Title 8, California Code of Regulations, or in Title 26 (Toxics) of the California Code of Regulations, or as evidenced by the manufacturer's MSDS.
7. Maintain a snake venom extractor kit including appropriate snake anti-venom on-site for the duration of the project.

#### **B. Sampling and Testing of Samples Collected for Exposure Analysis:**

1. Be responsible for all sampling, including sampling for airborne contaminants, and testing of materials suspected of containing hazardous substances to determine if such materials pose potential safety & health exposure hazards. All sampling shall be conducted by qualified persons, and testing shall be performed by an OSHA certified laboratory.
2. Copies of the results of testing and sampling shall be made available to the Engineer within 5-days of time of receipt from the certified laboratory.

3. Each sample shall have an identifying sample number assigned by the Contractor when the sample is taken with the prefix SPEC 7074.
  - a. Each sample number shall be included on the sampling chain of custody and in all reports, correspondence, and other documentation related to the sample. Each sample shall have a sampling chain of custody.
  - b. Chain of custody shall show the name and organization of each person having custody of the sample, and shall also show the sample number, job name and location, time of day and date sample taken, material sampled, and tests to be performed.

### 3.2 HAZARDOUS CONDITIONS

#### A. Confined Spaces:

1. Attention is directed to the provisions of Article 108 of the General Industry Safety Orders, Title 8, California Code of Regulations, and Article 4 on Dusts, Fumes, Mists, Vapors, and Gases of Subchapter 4, the Construction Safety Orders, Title 8, California Code of Regulations.
2. All spaces shall be designated by Contractor as either PERMIT REQUIRED or NON-PERMIT REQUIRED. When designated PERMIT REQUIRED, a copy of the PERMIT shall be conspicuously posted for the duration of the Work within the space. Confined spaces designated as PERMIT REQUIRED after assessment shall be supported by a rescue team(s).
3. Tests for the presence of combustible or dangerous gases and/or oxygen deficiency in confined spaces shall be made with an approved device immediately prior to a worker entering the confined space and at intervals frequent enough to ensure a safe atmosphere during the time a worker is in such a structure. A record of such tests shall be kept at the jobsite.
4. No employee shall be permitted to enter a confined space, where tests indicate the presence of a hazardous atmosphere, unless the employee is wearing suitable and approved respiratory equipment, or until such time that continuous forced air ventilation has removed the hazardous atmosphere from the confined space.
5. Confined spaces that contain or that have last been used as containers of toxic gases, light oils, hydrogen sulfide, corrosives, or poisonous substances, shall, in every case, be tested by means of approved devices or chemical analysis before being entered without wearing approved respiratory equipment.
6. Sources of ignition shall be prohibited in any confined space until after the atmosphere within the confined space has been tested and found safe.
7. Reservoirs, vessels, or other confined spaces having openings or manholes in the side as well as in the top shall be entered from the side openings or manholes when practicable.

8. Coordinate entry operations with the Engineer when both Contractor personnel and City personnel require permit space entry.
- B. Fall Protection:
1. Section 1670 of the Construction Safety Orders, Title 8, California Code of Regulations, requires protective measures to be implemented whenever a worker is exposed to falls greater than 7½ feet.
  2. On site activities shall conform to the requirements set forth in Sections 1669 through 1671.2, Title 8, California Code of Regulations.
  3. A walkway or bridge, with standard guardrails, shall be provided where employees are required to cross excavations and trenches 6 feet or greater in depth per Section 1541 of the Construction Safety Orders, Title 8, California Code of Regulations.
- C. Electrical:
1. For Work in which the Contractor must install temporary electrical circuits:
    - a. An electrical safety assessment (that includes ARCFLASH) shall be performed and provided to the Engineer.
    - b. The assessment shall be based on the NFPA 70 E (2012) Standard
    - c. Appropriate hazard labeling shall be provided.
  2. For Work in which the Contractor installs electrical circuits required by the specification:
    - a. An electrical shock and ARCFLASH assessment shall be performed in accordance to the NFPA 70E (2012) Standard on installed equipment.
    - b. Appropriate labels shall be made and installed on equipment rated in excess of 480V (for example MCC, switchboards, panelboards, industrial control panels, etc.).
    - c. Prior to labeling, the label shall be reviewed by the Engineer for acceptance.
- D. LOTO (Lock-Out Tag-Out): Title 8, California Code of Regulations requires control of hazardous energy sources where any employee may be exposed to potential harm.
1. The Contractor with its subs shall meet with the City to share and reach agreement for implementation with LOTO plans and planning for any City equipment, process, or machinery that shall be locked-out.
  2. The distinction between LOTO and operational shut-down shall be made.
  3. Share and implement the following components of the LOTO plan:
    - a. LOTO locations,
    - b. Lock-out and tag-out methods and equipment,



- c. De-energization verification,
- d. Log of locked and tagged locations,
- e. Stated emergency types and breach policy,
- f. Return-to-service practice and removal of lock and tags.

### 3.3 ACCIDENT REPORTS

- A. Report any serious injury to the Engineer immediately. Examples of reportable injuries: broken limbs, amputation, chemical asphyxia, etc. Contractor is solely and exclusively responsible for notifying Cal/OSHA within 8-hours of the occurrence of a serious injury or fatality. Also promptly report in writing to the Engineer all accidents whatsoever arising out of, or in connection with, the performance of the Work whether on, or adjacent to, the site, giving full details and statements of witnesses. Reports shall document the root cause of the accident, if the accident was preventable, and how the accident will be prevented from reoccurring. Furnish further information to the City as requested.
- B. If a claim is made by anyone against the Contractor or any subcontractor on account of any accident, arising out of or in connection with the performance of the Work, the Contractor shall promptly report the facts in writing to the Engineer, giving full details of the claim.
- C. Notify the Engineer if representatives of Cal/OSHA or any other regulatory agency arrives at the job-site for any purpose, including inspections, consultations, or investigations. The notification shall be made to the Engineer within 30-minutes of the arrival of the representative to the project.

**END OF SECTION**

***(THIS PAGE LEFT BLANK INTENTIONALLY)***

## SECTION 01 50 00

### CONSTRUCTION FACILITIES AND UTILITIES

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. Requirements for Contractor's temporary facilities and utilities at the job

##### 1.2 CONTRACTOR'S CONSTRUCTION OFFICE

- A. Maintain a suitable office at the site.
- B. Temporary office will be considered as the headquarters of the Contractor's representative whom is authorized to receive drawings, instructions, or other communication or articles. Any communication given to the representative or delivered at Contractor's temporary office at the site in his absence is deemed to have been delivered to the Contractor.
- C. Maintain copies of the Drawings, Specifications, and other Contract documents at Contractor's temporary office at the site and make these available for use at all times.

##### 1.3 STAGING AREA

- A. Before starting the work, submit a proposed plan and layout for all temporary offices, sanitary facilities, storage areas, temporary water service and distribution, and temporary power service and distribution.
- B. Erect temporary security fence as appropriate. Contractor is responsible for the security of the staging area. Owner and Engineer do not take any responsibility for missing or damaged equipment, tools or personal belongings.
- C. Store only those materials and equipment that are related to the construction within the staging area.

#### PART 2 - PRODUCTS (NOT USED)

#### PART 3 - EXECUTION

##### 3.1 SECURITY AND SAFETY

- A. Security of the site shall be the Contractor's responsibility from commencement of work until contract completion.
- B. Provide and maintain such fences, barricades, signs, and warning lights as may be required to provide safety against accidents.

### 3.2 TEMPORARY ELECTRIC POWER

- A. Contractor shall make provisions to obtain temporary electric power for use during construction. The Contractor shall be responsible for obtaining a source of electric power for construction.
- B. Cost of electric power shall be borne by the Contractor.
- C. The temporary electric power installation shall meet the construction safety requirements of OSHA, state, and other governing agencies.

### 3.3 TEMPORARY TELEPHONE SERVICE

- A. Provide telephone service at the construction site office. Cellular telephone service is acceptable.
- B. The Contractor is not permitted to use the Owner's telephone service.

### 3.4 TEMPORARY SANITARY FACILITIES

- A. Provide toilet and wash-up facilities for the construction work force at the site of work.
- B. Facilities shall comply with applicable laws, ordinances, and regulations pertaining to the public health and sanitation of construction field offices, dwellings, and camps.

### 3.5 TEMPORARY WATER SUPPLY

- A. Use potable water for soil moisture conditioning, pipeline pressure testing and other construction uses.
- B. Obtain approvals and authorizations from the Owner of the public water distribution system for use of water.
  - 1. Make the necessary connections to the public water supply and install all conveyance piping and truck filling facilities that are required to transport water for the work.
  - 2. Temporarily install valves, flow meters, air gaps, backflow preventers and other appurtenances required by the Owner of the public water distribution system to maintain the integrity of the existing water systems.
  - 3. Remove temporary water facilities when no longer needed.

**END OF SECTION**

## SECTION 01 57 19

### ENVIRONMENTAL CONTROLS

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. Environmental controls to be maintained during construction.

##### 1.2 APPLICABLE LAWS AND REGULATIONS

- A. Comply with applicable Federal, State and local environmental, health and safety laws and regulations.

##### 1.3 SITE CLEANLINESS

- A. Maintain work sites, staging areas, public roadways and private property clean and free of rubbish and debris. Remove materials and equipment from the site when they are no longer necessary for the Work.
- B. Keep buildings that are occupied by the Contractor clear of refuse and debris and in a reasonably neat condition.
- C. Upon completion of the work and before final acceptance, clear work areas of equipment, unused materials, and rubbish to present a clean and neat appearance.

##### 1.4 HAZARDOUS MATERIALS

- A. Handle paints, solvents, and other construction materials with care to prevent contaminants from entering into sewers, storm drains, surface waters, or soils.
- B. Develop an emergency response plan for spills of sewage, paint, oil, and other hazardous materials.
- C. In the event of a spill, immediately notify the Engineer, Owner and jurisdictional agencies. Take proper measures to clean up spills of hazardous materials in accordance with the emergency response plan, State, Federal, and local regulations and manufacturer's recommendations.

##### 1.5 AIR POLLUTION CONTROL

- A. Contractor shall not discharge smoke, dust, and other contaminants into the atmosphere that violate the air pollution regulations for the area.
- B. Do not idle internal combustion engines for prolonged periods of time.
- C. Minimize dust nuisance by cleaning, sweeping and sprinkling work areas, exposed soil, and haul roads with water or by powered brushing.

## 1.6 NOISE CONTROL

- A. Comply with local controls and noise level rules, regulations, and ordinances which apply to any work performed pursuant to the Contract. If the requirements of this Section are more restrictive than those of the local regulations, the requirements of this Section shall govern.
- B. Minimize noise from construction equipment.
  - 1. Whenever possible, utilize construction equipment powered by electric motors rather than diesel or gas driven engines.
  - 2. Locate construction equipment such as compressors and generators as far from sensitive receptors as feasibly possible. Erect temporary sound blankets around noisy equipment to mitigate noise propagation.
  - 3. Equip internal combustion engines with a muffler and provide a noise enclosure around stationary equipment such as engine-driven generators, welders, compressors, and pumps. Use “quiet package” and “hush” equipment.
  - 4. Do not start-up machines or equipment prior to or after the specified construction work hours.
- C. Noise Complaints: Should a specific noise impact complaint occur, Engineer has the prerogative to direct Contractor to implement one of the following noise mitigation measures at Contractor’s expense:
  - 1. Relocate stationary construction equipment away from the affected property.
  - 2. Shut off idling equipment.
  - 3. Reschedule construction operations to avoid periods of noise annoyance identified in the complaint.
  - 4. Install temporary or portable acoustic barriers around stationary construction noise sources.
  - 5. Operate electric powered equipment using utility power.
- D. Amplified sounds such as telephone, loudspeakers, and other forms of loud communication that constitute a nuisance and potential disturbance shall not be used.

## 1.7 CULTURAL RESOURCES

- A. Immediately stop work within 100 feet of any area where evidence of cultural resources such as chipped or ground stone, historic debris, building foundations or human bone is discovered during ground disturbing activities.

## 1.8 DIRT AND MUD CONTROL

- A. Contractor is responsible for preventing dirt, mud, and debris from accumulating on streets, sidewalks, parking areas, or other paved surfaces and for maintaining the cleanliness of these areas.
  - 1. Track Out: Clean vehicle tires of mud and dirt before exiting the site.
  - 2. Cover all dump truck loads and other loads that may result in debris falling from the vehicle.
  - 3. Sweeping Paved Areas:
    - a. Maintain cleanliness of paved areas used by the Contractor for the duration of the project.
    - b. Sweep paved areas that have been used since the previous cleaning on at least a weekly basis, or more frequently when directed by the Engineer. Utilize regenerative air or vacuum pickup sweepers together with proper dust control methods to remove sediment, dust, dirt, and other matter from paved areas. Do not use excessive water resulting in mud on public streets.

## 1.9 OIL SPILL PREVENTION AND CONTROL

- A. Store fuel and oil in accordance with requirements of the Uniform Fire Code and applicable National Fire Protection Association standards.
- B. Assume responsibility for the prevention, containment, and cleanup of spilled oil, fuel, and other petroleum products used in the Contractor's operations. Prevention, containment and cleanup costs shall be borne by the Contractor.
- C. Periodically inspect fuel hoses, lubricating equipment, hydraulically operated equipment, oil drums, and other devices for drips, leaks or signs of damage. Maintain and properly store to prevent spills and vandalism.
- D. Construct dikes around storage tanks, or locate tanks to prevent spills from escaping to surface waters or drainage ditches.
- E. Remove oils on land using sand, clay, sawdust or other absorbent material and dispose in an acceptable manner. Store waste materials in drums or other leak proof containers after cleanup and during transport to disposal.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**



## SECTION 01 61 00

### MATERIALS AND EQUIPMENT

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. Materials, equipment and products incorporated into the work.

##### 1.2 MATERIAL AND EQUIPMENT REQUIREMENTS

- A. All materials and equipment which will be submerged in water shall be Stainless Steel 316; all other equipment shall be Stainless Steel 304, unless specified otherwise.
- B. Specified in individual specification Sections in Divisions 2 through 45.
- C. Specifications are minimum requirements and manufacturers' standard products may require modifications to meet the specified requirements.
- D. Provide products and equipment with all accessories, trim, finish, safety guards and other devices needed for a complete and operational installation.
- E. Products to be supplied in quantity shall be the same product from a single source to provide standardization and interchangeability.

##### 1.3 DEFINITIONS

- A. Named Products:
  - 1. Items identified by manufacturer's product name and model number as indicated in the manufacturer's published product data.
- B. Materials:
  - 1. Products that are shaped, cut, worked, finished or otherwise fabricated or installed to form a part of the Work.
- C. Equipment:
  - 1. A product with working parts, whether motorized or manually operated that requires connections such as wiring or piping.

##### 1.4 TRADE NAMES AND "OR APPROVED EQUAL" PROVISION

- A. Whenever in the specifications or on the drawings materials or equipment to be incorporated into the work are designated by brand or trade name, such designation is intended to indicate a measure of quality and utility or as a standard.
- B. Except in those instances where the product is designated to match others in use on a particular improvement either completed or in the course of completion, the Contractor may not substitute any other brand of the product of equal quality and utility unless on approval of the City of Vallejo, provided use of the substitute product involves no extra cost to the City of Vallejo.

## 1.5 PACKAGING AND MARKING

- A. Equipment shall be protected against damage from moisture, dust, handling, or other cause during transport from manufacturer's premises to site. Each item or package shall be marked with the number unique to the specification reference covering the item.
- B. Stiffeners shall be used where necessary to maintain shapes and to give rigidity. Parts of equipment shall be delivered in assembled or subassembled units where possible.
- C. Bearing housings, vents and other types of openings shall be wrapped or otherwise sealed to prevent contamination by dust and dirt.

## 1.6 SHIPPING AND DELIVERY

- A. Plan, order, coordinate and deliver materials and equipment in accordance with the construction schedule to avoid delays and conflicts with the Work.
- B. Deliver anchor bolts and bolt templates sufficiently early to permit setting and placement in structural concrete.
- C. Unload products in accordance with the manufacturer's handling instructions. Promptly inspect for completeness and evidence of damage during shipment.

## 1.7 HANDLING AND STORAGE

- A. During the interval between the delivery of equipment to the site and installation, all equipment, unless otherwise specified, shall be stored in an enclosed space affording protection from weather, dust and mechanical damage and providing favorable temperature, humidity and ventilation conditions to ensure against equipment deterioration. Manufacturer's recommendations shall be adhered to in addition to these requirements.
- B. Equipment and materials to be located outdoors may be stored outdoors if protected against moisture condensation. Equipment shall be stored at least 6 inches above ground. Temporary power shall be provided to energize space heaters or other heat sources for control of moisture condensation. Space heaters or other heat sources shall be energized without disturbing the sealed enclosure.
- C. Fabricated products, pipe and pipe appurtenances shall be handled, stored off the ground on blocking or skids. Pipes with paint, tape coatings, linings or the like shall be stored to protect the coating or lining from physical damage or other deterioration. Pipes shipped with interior bracing shall have the bracing removed only when recommended by the pipe manufacturer.
- D. Store loose granular products in well-drained area on a solid surface to prevent mixing with foreign matter. Cover products that are subject to erosion or deterioration with plastic sheeting.
- E. Store electrical, instrumentation and control products in a water-tight enclosure to protect against damage from moisture, dust and corrosion.

## 1.8 PROTECTION OF EQUIPMENT AFTER INSTALLATION

- A. After installation, protect equipment from damage from, including but not limited to, dust, abrasive particles, debris and dirt generated by the placement, chipping, sandblasting, cutting, finishing and grinding of new or existing concrete, terrazzo and metal; and from the fumes, particulate matter, and splatter from welding, brazing and painting of new or existing piping and equipment.
- B. As a minimum, vacuum cleaning, blowers with filters, protective shielding, and other dust suppression methods will be required at all times to adequately protect all equipment.
- C. When sandblasting or when finishing concrete, all equipment that may be affected by cement dust shall be completely covered. Electrical switchgear, substations and motor load centers shall not be installed until after all concrete work and sandblasting in those areas have been completed and accepted and the ventilation systems installed.
- D. During painting operations, all grease fittings and similar openings shall be covered to prevent the entry of paint.

## **PART 2 - PRODUCTS (NOT USED)**

## **PART 3 - EXECUTION**

### 3.1 INSPECTION

- A. Prior to installation, inspect materials and equipment for signs of corrosion and other effects of storage. Do not install material or equipment showing such effects.
- B. Remove damaged material from the site and expedite delivery of replacement material or equipment. Delays to the Work resulting from material or equipment damage that necessitates procurement of new products will be considered delays that are within the Contractor's control.

### 3.2 INSTALLATION

- A. Handle, install, connect, clean and adjust products in accordance with the manufacturer's instructions.
- B. Fill lubricant reservoirs and grease bearings prior to starting equipment. Use lubricants recommended by the manufacturer of the equipment.
- C. Recoat painted surfaces that are damaged prior to final acceptance of the Work.

## **END OF SECTION**

***(THIS PAGE LEFT BLANK INTENTIONALLY)***

## SECTION 01 65 00

### SHIPMENT, PROTECTION, AND STORAGE

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. Equipment, products, and materials shall be shipped, handled, stored, and installed in ways which will prevent damage to the items. Damaged items will not be permitted as part of the Work except in cases of minor damage that have been satisfactorily repaired and are acceptable to the Engineer.

#### PART 2 - PRODUCTS

##### 2.1 PIPE

- A. Pipe and appurtenances shall be handled, stored off the ground, and installed as recommended by the manufacturer.
- B. Pipes with paint, tape coatings, linings or the like shall be stored to protect the coating or lining from physical damage or other deterioration.
- C. Pipes shipped with interior bracing shall have the bracing removed only when recommended by the pipe manufacturer.

##### 2.2 EQUIPMENT

- A. Package and Marking:
  - 1. All equipment shall be protected against damage from moisture, dust, handling, or other cause during transport from manufacturer's premises to site.
  - 2. Each item or package shall be marked with the number unique to the specification reference covering the item.
  - 3. Stiffeners shall be used where necessary to maintain shapes and to give rigidity.
  - 4. Parts of equipment shall be delivered in assembled or subassembled units where possible.
- B. Identification:
  - 1. Each item of equipment, spare parts, and valve shall have permanently affixed to it a label or tag with its equipment or valve number designated in this Contract. Marker shall be of stainless steel.
  - 2. Location of label shall be easily visible.

- C. Shipping:
  - 1. Bearing housings, vents and other types of openings shall be wrapped or otherwise sealed to prevent contamination by grit and dirt.
- D. Maintenance records shall be maintained for major equipment items that are in storage, indicating regular rotation of shafts, checking of oil, confirmation of power to the space heaters, etc. These records should be submitted to Owner for approval prior to installation of the units and maintained by Contractor until final acceptance of the Work.

## **PART 3 - EXECUTION**

### **3.1 EQUIPMENT STORAGE**

- A. During the interval between the delivery of equipment to the site and installation, all equipment, unless otherwise specified, shall be stored in an enclosed space affording protection from weather, dust and mechanical damage and providing favorable temperature, humidity and ventilation conditions to ensure against equipment deterioration. Manufacturer's recommendations shall be adhered to in addition to these requirements.
- B. Equipment and materials to be located outdoors may be stored outdoors if protected against moisture condensation. Equipment shall be stored at least 6" above ground. Temporary power shall be provided to energize space heaters or other heat sources for control of moisture condensation. Space heaters or other heat sources shall be energized without disturbing the sealed enclosure.

### **3.2 PROTECTION OF EQUIPMENT AFTER INSTALLATION**

- A. After installation, all equipment shall be protected from damage from, including but not limited to, dust, abrasive particles, debris and dirt generated by the placement, chipping, sandblasting, cutting, finishing and grinding of new or existing concrete, terrazzo and metal; and from the fumes, particulate matter, and splatter from welding, brazing and painting of new or existing piping and equipment.
- B. As a minimum, vacuum cleaning, blowers with filters, protective shielding, and other dust suppression methods will be required at all times to adequately protect all equipment.
- C. During concreting, including finishing, all equipment that may be affected by cement dust must be completely covered.
- D. During painting operations, all grease fittings and similar openings shall be covered to prevent the entry of paint.
- E. Electrical switchgear, unit substation, and motor load centers shall not be installed until after all concrete work and sandblasting in those areas have been completed and accepted and the ventilation systems installed.

## **END OF SECTION**

## **SECTION 01 71 13**

### **MOBILIZATION AND DEMOBILIZATION**

#### **PART 1 - GENERAL**

##### **1.1 MOBILIZATION**

- A. Mobilization shall consist of preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies, and incidentals to the site; for the establishment of all facilities necessary for work on the project; and for all other work and operations which must be performed, or costs incurred prior to beginning work, on the various items on the project site.
- B. Mobilization shall also include the construction of temporary access ways; temporary fencing; and the necessary preparatory work required to allow for the safe and stable movement of all vehicles that are required to construct the improvements as shown.

##### **1.2 DEMOBILIZATION**

- A. Demobilization shall consist of work and operations necessary to disband all mobilized items and clean up the site. The removal of all temporary access ways, signs, temporary fencing, and temporary facilities or works and the restoration of surfaces to an equal or better than existing condition shall also be included as part of demobilization.

#### **PART 2 - PRODUCTS (NOT USED)**

#### **PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

***(THIS PAGE LEFT BLANK INTENTIONALLY)***



## SECTION 01 75 17

### EQUIPMENT AND SYSTEM TESTING

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. Requirements for the Contractor's testing of mechanical, electrical, and instrumentation equipment and systems provided under this Contract.
- B. The requirements contained in this Section supplement, but do not supersede, specific testing requirements found elsewhere in the Contract Documents.

##### 1.2 REFERENCED SECTIONS

- A. The following Section is referenced in this Section
  - 1. Section 01 33 00 – Submittals

##### 1.3 COORDINATION

- A. Coordinate with the equipment suppliers for functional and performance testing and facility startup. Minimum levels of on-site installation and testing assistance required of the equipment suppliers is described in separate Sections.
- B. Coordinate the activities of subcontractors and equipment suppliers to implement the requirements of this Section.

##### 1.4 SUBMITTALS

- A. Prepare and submit in accordance with Section 01 33 00.
- B. Independent Testing Labs: When testing by an independent laboratory is specified, provide credentials and certifications to demonstrate capabilities.
- C. Test Instruments Calibration: Certification that test instruments used in the testing procedure have been calibrated to an acceptable and recognized standard.
- D. Testing Schedule: For each piece of equipment or system, provide a testing schedule and updates as appropriate. Submit at least 20 working days prior to the scheduled start of testing. Confirm the test schedule, or provide an updated schedule 4 days prior to the start of testing.
- E. Testing Plan: Describe step by step procedure that will be utilized to systematically test equipment and systems.
- F. Test Results:
  - 1. Factory Test Results: Results of equipment tests performed by the equipment supplier at the point of manufacture and prior to shipping the equipment to the site.
  - 2. Results of the Pre-Operational Test.

3. Results of the Functional Test.
  4. Results of the Operational and Performance Tests.
- G. Testing Form
1. Instrumentation Data and Calibration Record Test Form (located at the end of this Section) showing the format and level of detail required for the documentation forms.
- H. Manufacturer's Field Certification
1. Submit a Manufacturer's Installation Certification Form (located at the end of this Section) after the manufacturer's Field Representative has completed the specified field services and testing. Submit the certification prior to Manufacturer's Representative leaving the plant site.

## 1.5 DOCUMENTATION REQUIREMENTS

- A. Develop and implement a records keeping system to document compliance with the requirements of this Section.
- B. Document date of test, equipment number or system name, nature of test (performance or operational), test objectives, test results and test instruments used during the test. Provide signature spaces for the Engineer and the Contractor.

## 1.6 TEST PLANS

- A. Develop test plans in cooperation with the equipment suppliers detailing the coordinated, systematic testing of each item of equipment and system provided under this Contract.
- B. Make test plans specific to the item of equipment or system to be tested. Identify by specific equipment or tag number each device or control station to be manipulated, observed or tested during the test procedure and the specific results to be observed or obtained.
- C. Identify the responsibility of subcontractors and suppliers who will participate in the tests and list the names of manufacturers' representatives to be present during the duration of the test.
- D. Provide step-by-step procedures for testing control and electrical circuits to affirm that the circuit is properly identified and connected to the proper device.
- E. Undertake performance tests in a manner that will duplicate the actual operating conditions that will be encountered.

## 1.7 TESTING SCHEDULE

- A. Prepare a testing schedule setting forth the sequence contemplated for performing the test work. Identify the contemplated start date, duration of the test and completion of each test.

## 1.8 TEST RESULTS

- A. Test results shall be within the tolerances set forth in the detailed specification sections of the Contract Documents. If no tolerances have been specified, test results shall conform to tolerances established by recognized industry practice.
- B. Retesting: If any portion of the work should fail to fulfill the Contract requirements and is adjusted, altered, renewed, or replaced, tests on that portion, together with all other portions of the work as are affected thereby, shall be repeated within reasonable time and in accordance with the specified conditions.

## **PART 2 - PRODUCTS (NOT USED)**

## **PART 3 - EXECUTION**

### 3.1 GENERAL

- A. The objective of the testing program is to demonstrate, to the Engineer's complete satisfaction, that the systems and equipment provided under this Contract meet the specified performance requirements.
- B. Testing program also provides a base-line operating condition for the Owner to use in a preventative maintenance program.
- C. Testing sequence consists of Pre-Operational Checkout, Functional Tests, Performance Testing and Operational Testing. These tests are required regardless of whether Factory Tests were conducted on the same piece of equipment or system.
- D. Each item of mechanical, electrical, and instrumentation equipment installed under this Contract shall be tested by the Contractor to demonstrate compliance with the performance requirements of this project.
- E. Provide labor, outside services, materials, test equipment and other items required to complete the specified testing and startup requirements. Furnish power, water chemicals, fuel, oil, grease and other materials needed to conduct the specified tests.
- F. Install temporary valves, gauges, piping and other materials required to conduct the specified tests.

### 3.2 PRE-OPERATIONAL CHECKOUT

- A. Pre-Operational Checkout shall be undertaken by the manufacturer's field representative.
- B. Pre-Operational Checkout includes basic checks of the equipment installation prior to starting the equipment to determine if the equipment and related components have been correctly installed and is ready for starting.
- C. Pre-Operational Checkout includes the following:
  - 1. Alignment of equipment, shafts and shaft couplings, drives, belts and pulleys.

2. Filling and checking lubrication reservoirs.
  3. Checking shaft seals, packing and seal lubrication system.
  4. Manufacturer's recommendations for pre-start preparation.
  5. Proper motor rotation
  6. Circuit continuity testing, electrical testing, and instrumentation and control system testing in accordance with the requirements of Division 16.
  7. Demonstrate operational controls function as intended.
  8. Calibration and adjustment of electrical and instrumentation devices.
  9. Verify torque settings.
- D. Verify tanks, pipes, conduits, vessels and equipment are clean and free of debris that may interfere with the testing or operation of the equipment. Remove debris prior to start of testing.
- E. Following completion of the Pre-Operational Checkout, the manufacturer's field representative shall complete and sign a field certification form and submit to the Engineer.

### 3.3 FUNCTIONAL TESTS

- A. After successful completion of the Pre-Operational Checkout, start individual items of equipment and systems and operate under simulated operating conditions to determine as nearly as possible whether the equipment and systems meet the requirements of these specifications.
- B. Operate the equipment for a sufficient period of time to determine machine operating and characteristics, including noise, temperatures and vibration; to observe and document performance characteristics; and to permit initial adjustment of operating controls.
- C. Obtain baseline operating data on all equipment with motors greater than 10 horsepower to include amperage draw, bearing temperatures, and vibration as required. This baseline data will be collected for the Owner to enter in their preventive maintenance system.
- D. Post-Test Inspection: When Functional Tests have been completed, recheck equipment for proper alignment, unacceptably loose connections, unusual movement, or other indications of improper operating characteristics. Correct any deficiencies to the satisfaction of the Engineer.
- E. Machines or devices which exhibit unusual or unacceptable operating characteristics shall be disassembled and inspected. Repair any defects found during the course of the inspection and identify and correct the cause of such defect. Replace specific parts, or the entire equipment item, to the complete satisfaction of the Engineer at no cost to the Owner.

### 3.4 OPERATIONAL AND PERFORMANCE TESTS

- A. After successfully completing functional tests, conduct an operational test of each system to verify correct operation. During the operational test, conduct performance testing to verify that the system complies with the performance requirements contained in the individual equipment specifications.
- B. Owner's operating personnel will fill process units and process systems with water and other process fluids to allow the Contractor to conduct the operational tests.
- C. Upon completion of the filling operations, operate all parts of each system for a continuous, uninterrupted period of not less than 8 hours. During this period, the Contractor shall undertake performance testing and shall monitor the characteristics of each machine according to manufacturer information and specifications and report any unusual conditions to the Engineer.
- D. Undertake performance tests of mechanical, electrical, HVAC, and instrumentation equipment and systems to demonstrate and confirm compliance with the performance requirements specified in the individual equipment specifications.
- E. Should the operational testing be halted for any reason related to the facilities constructed or the equipment furnished under this Contract, the operational testing program shall be repeated until the specified continuous period has been accomplished without interruption.
- F. Following successful completion of the Operational Test, commissioning of the system may begin.

**END OF SECTION**

# MANUFACTURER'S INSTALLATION CERTIFICATION FORM

Contract No: \_\_\_\_\_ Specification Section: \_\_\_\_\_

Equipment Name \_\_\_\_\_

Contractor: \_\_\_\_\_

Manufacturer of Equipment  
Item:

*The undersigned manufacturer of the equipment item described above hereby certifies that he has checked the installation of the equipment and that the equipment, as specified in the project manual, has been provided in accordance with the manufacturer's recommendations and that the trial operation of the equipment item has been satisfactory.*

**Comments:**

---

---

---

---

\_\_\_\_\_  
Date

\_\_\_\_\_  
Manufacturer

\_\_\_\_\_  
Signature of  
Authorized Representative

\_\_\_\_\_  
Date

\_\_\_\_\_  
Contractor

\_\_\_\_\_  
Signature of  
Authorized Representative

## SECTION 01 77 00

### CONTRACT CLOSEOUT PROCEDURES

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. Administrative and procedural requirements for contract closeout.

##### 1.2 REFERENCED SECTIONS

- A. The following Sections are referenced in this Section
  - 1. Section B– General Provisions
  - 2. Section 01 78 23 – Operation and Maintenance Information
  - 3. Section 01 78 39 – Record Drawings

##### 1.3 FINAL CLEANING

- A. Immediately prior to submittal of a request for inspection for Substantial Completion, clean the project site and make ready for Owner's use and occupancy.
- B. Employ experienced workers or professional cleaners for final cleaning.
- C. Complete the following cleaning operations:
  - 1. Clean the project site, yard and grounds which were disturbed by construction activities. Remove rubbish, waste material, litter and other foreign material.
  - 2. Sweep paved areas, remove oil stains, grease, dust and dirt.
  - 3. Remove tools, construction equipment, machinery, storage sheds, temporary fences and surplus material.
  - 4. Broom clean sidewalks and concrete floors.
  - 5. Clean glass in doors and windows, remove glazing compounds, replace chipped and broken glass, clean door and window frames.
  - 6. Patch, touch up and repair marred surfaces and finishes. Replace finishes and surfaces that cannot be satisfactorily repaired or restored.
  - 7. Wipe surfaces of mechanical and electrical equipment, remove excess lubrication, paint splatter and mortar droppings.
  - 8. Clean plumbing fixtures and mirrors.
  - 9. Clean light fixtures, lamps and bulbs. Replace burned-out bulbs and defective or noisy starters in fluorescent and mercury vapor fixtures.

10. Remove erosion control devices when bare soils are sufficiently revegetated to prevent on-site or off-site soil erosion.

#### 1.4 SUBSTANTIAL COMPLETION

- A. General:
  1. Comply with procedural requirements for Substantial Completion as specified in Section B, General Provisions.
- B. Complete final cleaning operations before requesting inspection for Substantial Completion.
- C. Prior to requesting inspection for Substantial Completion, complete and submit the following:
  1. List of items to be completed or corrected (punch list). Organize list by facility, space, system and piece of equipment.
  2. Specific warranties, bonds, maintenance service agreements, final certifications and similar documents.
  3. Delivery of spare parts, special tools, extra materials and similar items to designated locations.
  4. Make final changeover of permanent locks and deliver keys to Owner.
- D. Inspection for Substantial Completion:
  1. Engineer, Owner and Contractor shall jointly walk through and inspect the project site to determine whether the Work is satisfactory and Substantially Complete.
  2. The Contractor's punch list will be reviewed and additional items identified during the inspection requiring corrective actions will be added to the list as determined by the inspection.

#### 1.5 FINAL COMPLETION

- A. Final Completion Submittals:
  1. Prior to submitting final Application for Payment, complete and submit the following:
    - a. Project Record Drawings. Refer to Section 01 78 39.
    - b. Guaranty and Warranties.
    - c. Operation and Maintenance Information. Refer to Section 01 78 23.
    - d. Punch List with all corrective actions completed and ready for Final Inspection.
    - e. Releases from Agreements with property owners or public agencies.
    - f. Releases or Waivers of Liens and Claims.



- g. Evidence of final, continuing insurance coverage complying with insurance requirements.
    - h. Consent of Surety to Final Payment.
  - B. Final Inspection:
    - 1. Submit written request for final inspection for Project Acceptance.
    - 2. Engineer will either proceed with the inspection or advise Contractor of unfulfilled requirements.
    - 3. Engineer will prepare a final Certificate of Completion after satisfactory inspection of the Work.

#### 1.6 FINAL APPLICATION FOR PAYMENT

- A. Following a satisfactory Final Inspection and receipt of a final Certificate of Completion from the Engineer, submit the final Application for Payment in accordance with the procedures and requirements specified in Section B, General Provisions.

#### **PART 2 - PRODUCTS (NOT USED)**

#### **PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

***(THIS PAGE LEFT BLANK INTENTIONALLY)***

## SECTION 01 78 39

### RECORD DRAWINGS

#### PART 1 - GENERAL

##### 1.1 SUMMARY

- A. Record Drawings are documents maintained and annotated by the Contractor during construction to illustrate the final location of piping, equipment, electrical conduits, outlet boxes and cables.
- B. Record changes or deviations that vary from the details indicated on the original Contract Documents. Identify buried or concealed construction and utility features that are revealed during the course of construction. Record the horizontal and vertical location of buried utilities that differ from the locations indicated, or which were not indicated on the Contract Documents.
- C. When the configuration and arrangement of the Work is changed from that indicated on the Contract Drawings or specified in the Project Manual, the authorizing document for the change, such as a Request for Information, Change Order, Shop Drawing, or Field Order, shall be clearly referenced on the Record Drawings as a comment.
- D. Supplement the Record Drawings with detailed layout sketches, schedules, installation drawings and fabrication drawings.

#### PART 2 - PRODUCTS (NOT USED)

#### PART 3 - EXECUTION

##### 3.1 RECORD DRAWINGS

- A. Record Drawings shall be full size and maintained in a clean and legible condition. Engineer will provide one set of full size Drawings for use as a Record Drawing set.
- B. Do not use the Record Drawing set for construction purposes.
- C. At the completion of the work, but prior to final payment, submit the Record Drawing set to the Engineer.
- D. Marking of the drawings shall be kept current and shall be done at the time the material and equipment are installed.
- E. Annotations to the Record Drawings shall be legible and shall be made with an erasable colored pencil conforming to the following color code:
  - 1. Additions and Final Dimensions - Red
  - 2. Deletions - Green
  - 3. Comments - Blue

- F. Engineer will review the Contractor's updated Record Drawing mark-ups on a monthly basis during the evaluation of each progress payment.
1. Progress payment approval is contingent upon complete and up-to-date Record Drawing mark-ups.
  2. Payment approval will be delayed if mark-up drawings are not up-to-date.

**END OF SECTION**

## SECTION 01 89 00

### RESTORATION OF IMPROVEMENTS

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. Restoration of work areas after installation and construction of new facilities.

#### PART 2 - PRODUCTS (NOT USED)

#### PART 3 - EXECUTION

##### 3.1 STRUCTURES

- A. Take precautions to protect the integrity and usefulness of existing facilities.
- B. If necessary, remove existing structures including curbs, gutters, pipelines, and utility poles, as necessary for the performance of the work.
  - 1. Repair existing structures that are damaged as a result of the Work under this contract
  - 2. Rebuild or replace the structures in as good a condition as originally found.

##### 3.2 ROADS AND STREETS

- A. Asphalt pavement that has been removed, broken, or damaged, or in which the ground has caved or settled during the work under this contract, shall be brought to original grade and section and resurfaced.
- B. Before resurfacing material is placed, sawcut edges of pavement to provide clean solid vertical faces.
- C. Complete pavement repair in accordance with in accordance with the City of Vallejo requirements.

##### 3.3 CULTIVATED AREAS AND OTHER SURFACE IMPROVEMENTS

- A. Restore cultivated or planted areas and other surface improvements damaged by construction as nearly as possible to their original condition.
- B. Repair existing guard posts, barricades, and fences that are damaged.
- C. Replace damaged plantings with new plantings of the same type or as acceptable to the Owner

### 3.4 PROTECTION OF EXISTING INSTALLATIONS

- A. Immediately repair or replace existing equipment, controls, structures, or facilities which are damaged as part of the Work.
- B. Take measures that are necessary to ensure that construction debris and materials are kept out of the wastewater system.

**END OF SECTION**

## SECTION 01 91 00

### FACILITY START-UP AND COMMISSIONING

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. Project requirements for Start-up and Commissioning

##### 1.2 DEFINITIONS

- A. Start-up: The initial operation of the facility and/or plant, utilizing water and related substances (sludge, methane, scum), or other media which the facility has been designed to process.
- B. Commissioning: A confirmation that equipment, systems and facilities operate in accordance with the design intent and satisfy the detailed requirements of the technical specifications. The duration of the commissioning period shall be not less than 7 consecutive days.

##### 1.3 REFERENCED SECTIONS

- A. The following Section is referenced in this Section
  - 1. Section 01 61 00 – Materials and Equipment

##### 1.4 SERVICES OF MANUFACTURER

- A. Manufacturer's services for inspection, physical checkout, field adjustment, field testing, and start-up shall comply with the requirements of this Section, the requirements of the particular equipment or product technical specifications contained in Divisions 1 through 42, and the requirements of Section 01 61 00.
- B. Manufacturer's services for training and instruction of the Owner's personnel shall comply with the requirements of the particular equipment or product technical specifications contained in Divisions 1 through 43.

##### 1.5 ROLES AND RESPONSIBILITIES

- A. Contractor's Responsibilities
  - 1. Schedule and coordinate with the Engineer and equipment manufacturers for start-up of equipment and systems. Submit for review and approval procedures for facility start-up.
  - 2. Review preliminary punch list items with the Engineer 15 days prior to the scheduled start-up; and complete, correct, or resolve at the option of the Engineer, any items which impact or interfere with the facility start-up.
  - 3. Attend meetings related to the review of start-up plan(s).

4. Clarify submittals, testing requirements, schedules, or other items related to the start-up of the equipment and facilities specified and indicated in the Contract Documents.
  5. Provide all start-up materials and operating supplies for 30 operating days. Supplies include lubricants, chemicals, gases, and specialized fluids to maintain operation for 30 days.
  6. Provide Manufacturer's authorized representatives as required to supervise placing equipment or systems in operation and to provide guidance during the start-up period.
  7. Provide to the Engineer a list of 24 hour, "on call" representative supervisory persons who will monitor the facility start-up, and serve as a liaison for the Engineer.
  8. Provide the necessary craft or labor assistance full time during the day shift and as required at other times in the event of an emergency requiring immediate attention. An emergency is defined as a failure which precludes the further operation of a critical segment of the Work. The response time shall be not less than four hours from the time of notification.
  9. Correct all failures or equipment problems identified during start-up. Repairs deemed the responsibility of the Contractor shall be made at no additional cost to the Owner.
- B. The Owner's O&M staff responsibilities during the 7-day facility start-up period include the following:
1. Provide staff to operate equipment, systems, and facilities requiring start-up.
  2. Provide all utilities including power, natural gas, and water.
- C. The Engineer's responsibilities for the facility start-up period include the following:
1. Coordinate the Contractor's start-up activities with plant operations staff.
  2. Verify the results of performance tests and any retesting.
  3. Direct Contractor to repair defective workmanship, materials, and equipment.

## 1.6 COMMISSIONING

- A. The Owner's O&M staff will initiate the commissioning period and operate the facility throughout the duration of the commissioning period. All equipment must operate properly and continuously 24 hours per day for the test period. If any item malfunctions during the test, the item shall be repaired and the test restarted at day zero with no credit given for the operating time before the malfunction.
- B. The purpose of this 7-day operational demonstration is to:
1. Provide the environment by which the Owner's O&M staff can place equipment and systems into service.



2. Expose flaws or defects in workmanship, equipment, or materials, not previously discovered that are the responsibility of the Contractor to repair, correct, modify, or replace prior to Final Acceptance.

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**

***(THIS PAGE LEFT BLANK INTENTIONALLY)***

## SECTION 02 42 00

### DEMOLITION, SALVAGE AND ABANDONMENT

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. Contractor shall perform all demolition, salvage, and abandonment of existing facilities, equipment, and materials.
- B. This section includes provisions for demolition work of all equipment necessary to complete the scope of work.
- C. Lead based paint material shall be contained in accordance with Federal and State Hazardous Materials Management Rules and Regulations.
- D. Hazardous material training, permitting, surveillance, monitoring, safety, planning, testing, record keeping, control systems, abatement, inspections, cleanup, waste removal, and reporting shall be performed by an experienced Contractor in accordance with Federal and State Hazardous Materials Management Rules and Regulations.

##### 1.2 REFERENCED SECTIONS

- A. The following Section is referenced in this Section
  - 1. Section 01 33 00 – Submittals
  - 2. Section 02 42 13 – Recyclable Materials
  - 3. Section 31 00 00 – Earthwork

##### 1.3 SUBMITTALS

- A. Comply with Section 01 33 00.
- B. Description of removal procedures for careful removal of materials and equipment and the protection of facilities which are to remain undisturbed.
- C. Time schedule for demolition work. Show demolition in relation to new construction, including any temporary facilities.
- D. Submit copies of completed manifests, bills of lading and facility acceptance receipts for waste transported to offsite disposal facilities to the City.

##### 1.4 REGULATORY REQUIREMENTS

- A. Hazardous materials shall be removed, handled, transported, and disposed of in accordance with all regulations by Federal OSHA, California OSHA, the U.S.

Environmental Protection Agency, and the Bay Area Air Quality Management District (BAAQMD) including, but not limited to, the references specified in Paragraph 1.03.

- B. The Contractor shall hire an independent abatement firm or be qualified to perform the removal and disposal specified in this section.
- C. Any liability for working with residual and hazardous waste is solely the Contractor's responsibility.
- D. The Contractor is responsible for the health and wellbeing of its workers during the execution of this contract. The work shall be conducted in accordance with all applicable local, state, and federal regulation, including 29 CFR § 1926.62, and California Code of Regulations 8 CCR 1532.1 Construction Safety Orders, Article 4, Dusts, Fumes, Mists, Vapors, and Gases, Lead.
- E. Dispose of debris in accordance with the requirements of jurisdictional agencies.
- F. Comply with applicable air quality control regulations.
- G. Obtain necessary permits for transportation of debris to disposal site(s).
- H. Erect appropriate safety devices to protect Owner's operations personnel and workers from the hazards of demolition activities. Install barriers or guard rails and provide appropriate warning signs.

#### 1.5 BURNING

- A. The use of burning at the project site for the disposal of refuse, debris, and waste materials not permitted.

### **PART 2 - PRODUCTS**

#### 2.1 EQUIPMENT AND MATERIALS FOR DEMOLITION

- A. Drop hammers, impact hammers, or other types of impact devices shall not be used under circumstances that may allow disturbance of lead containing or lead based paint.

### **PART 3 - EXECUTION**

#### 3.1 GENERAL

- A. Contractor shall provide safe access to adjacent property, facilities, and buildings at all times. Roadways and passageways shall not be obstructed.
- B. The means and methods of performing removal and salvage operations is the sole responsibility of the Contractor. However, equipment used and methods of demolition and removal will be subject to approval of the City's Representative.
- C. The Drawings identify the major equipment and facilities to be removed, demolished, salvaged or abandoned. Auxiliary utilities such as water, air, drainage, lubrication oil, electrical wiring, controls, and instrumentation are not necessarily shown. Remove auxiliary utilities, as well as equipment and pipe supports and

associated instrumentation devices pertaining to piping or equipment designated to be removed.

- D. All demolition material and debris shall be salvaged or disposed of off-site in a lawful manner and in accordance with Section 02 42 13.

### 3.2 PROTECTION OF EXISTING FACILITIES

- A. Care shall be exercised during demolition work to confine such work to the demolition area. The Contractor shall take the necessary steps and use the necessary equipment to adequately protect adjacent structures and properties from any damage. The physical means and methods used for protection are at the Contractor's option. However, the Contractor will be completely responsible for replacement and restitution work of whatever nature at no expense to the City.
- B. Before beginning any cutting, trenching, or demolition work, carefully survey the existing work and examine the Contract Documents to determine the extent of the Work.
- C. Take precautions to prevent damage to facilities which are to remain in place or are to be salvaged, and be responsible for any damages to these facilities resulting from this work. Repair or replace damages to such work to return the facilities to its pre-existing condition at no additional cost to the Owner.

### 3.3 DEMOLITION AND REMOVAL

- A. Demolish structures and equipment in an orderly and safe manner.
- B. Remove and dispose of material not identified for salvage or re-installation at a new location.
- C. Remove all demolition debris and residual waste stream not suitable for salvage from the site.

### 3.4 ENVIRONMENTAL CONTROLS

- A. Contractor shall minimize the generation of dust, lead based paint dust, lead based paint chips, and other airborne particles.
- B. Burning and grinding of lead based paint is prohibited. Demolition shall be accomplished with shearing equipment to prevent generation of lead dust or fumes. If other cutting methods are used, all lead based paint shall be removed from the area of cutting with chemical strippers.
- C. Water shall not be used in a manner that creates dangerous or objectionable conditions such as flooding, erosion, overspray, or sedimentation in nearby ditches or streams.
- D. If contaminated soils or any other hazardous materials are encountered, the affected demolition work shall be stopped and City's Representative notified promptly.
- E. Promptly remove equipment and materials and all waste and debris resulting from demolition operations. Dispose of removed equipment, materials, waste, and debris at state or county licensed waste disposal sites. Lead based paint material

shall be contained in accordance with Federal, State and local laws, codes, regulations and guidelines.

### 3.5 DISPOSAL OF DEMOLISHED MATERIALS

- A. Materials and equipment not designated for reuse or retention by the City, site debris, rubbish, and other materials resulting from demolition operations, as well as mechanical and electrical equipment designated to be demolished, shall be the property of the Contractor and shall be legally disposed of at the Contractor's expense.

### 3.6 CLEANING

- A. During and upon completion of the demolition operations, promptly remove unused tools and equipment, surplus materials, rubbish, debris, and dust and leave work areas in a clean condition.
- B. Clean the floor, remove paint chips and other debris from the site, and dispose in accordance with all Federal, State and local laws, codes, requirements and guidelines.
- C. Do not sweep, grade, or flush surplus materials, rubbish, or debris on site or into storm drains.

**END OF SECTION**

## SECTION 02 42 13

### RECYCLABLE MATERIALS

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. Procedures for preparing a Waste Management Plan (WMP).

##### 1.2 REFERENCED SECTION

- A. The following Section is referenced in this Section
  - 1. Section 01 33 00 – Submittals

##### 1.3 SUBMITTALS

- A. Comply with section 01 33 00.
- B. Submit: Proposed WMP.

##### 1.4 SUMMARY

- A. The City of Vallejo is making an effort to recycle or to salvage the materials for this project. A WMP is required for this project. Many of the materials of this project, such as steel, asphalt concrete, and Portland cement concrete can be recycled.
- B. The Contractor is required to list in the WMP the materials that will be recycled, or disposed, resulting from the project. The Contractor is required to recycle a minimum of 50% for construction and demolition debris generated by this project. Hazardous materials shall be discounted in the calculation of recycle requirement.
- C. The Waste Management Plan (WMP) shall indicate:
  - 1. The total weight of project debris, by materials type, generated.
  - 2. The maximum volume or weight of such materials that can feasibly be diverted via recycling.
  - 3. The vendor or facility that the Contractor proposes to use to collect or receive that material.
  - 4. The weight of demolition materials that will be land filled.
  - 5. Project square footage.
- D. If the Contractor experiences unique circumstances that they believe make it infeasible to comply with the City's diversion requirement, the Contractor may apply for an exemption at the time they submit the WMP.

## **PART 2 - MATERIALS (NOT USED)**

## **PART 3 - EXECUTION**

### **3.1 GENERAL**

- A. To fulfill the requirement of the WMP, the Contractor is required to separate the demolition debris by sorting on-site into distinct containers or stockpile for each type of material proposed to be recycled, as well as a separate container for refuse.
- B. After segregation and prior to transport, Engineer shall inspect containers or stockpile for each type of material to be recycled.
- C. Contractor shall assume ownership of the demolished materials at the commencement of the project.
- D. Contractor shall fill out and submit Waste Management Plan sheet and table to Engineer upon completion of transport of demolition materials to recycling facility. Contractor shall ensure that facilities provide them with recycling and/or disposal receipts to compile and submit to City as supporting documentation for WMP.

## **PART 4 - MEASUREMENT AND PAYMENT**

### **4.1 MEASUREMENT**

- A. “Recyclable Materials” shall not be measured.

### **4.2 PAYMENT**

- A. Payment for “Recyclable Materials” shall be included in the various items of work, and no additional compensation will be made therefor.
- B. Documentation, including receipts showing actual weights of all material recycled and disposed must be submitted on a regular basis before issuance of payment.



**CITY OF VALLEJO  
WASTE MANAGEMENT PLAN**

The required goal is to reuse or recycle at least 50% for construction & demolition debris.

Use tons or cubic yards to quantify total estimated waste and percentages for materials. Ask your hauler, recycler or site cleanup vendor to assist you with this plan. Receipts of all recycling and disposal must be submitted after project completion.

Project Name: FHWTP Sed & Flocc Chamber Equip Upgrade (WT 7093)

Location: Fleming Hill WTP in the City of Vallejo, Solano County, California

Type of Project:     New Construction             Demolition             Renovation

Type of Construction: (concrete, steel, etc.) \_\_\_\_\_

Value of Project: \_\_\_\_\_

Bidder: \_\_\_\_\_

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone / FAX: \_\_\_\_\_

Questions regarding recycling: Call Derek Crutchfield, Recycling Coordinator at (707) 648-5346.

Submit this form and the attached Waste Management plan to the Assistant Public Works Director/Water prior to invoice.

**SHEET 1 OF 2**

**CITY OF VALLEJO  
WASTE MANAGEMENT PLAN FOR  
CONSTRUCTION & DEMOLITION PROJECT**

Project Name: FHWTP Sed & Flocc Chamber Equip Upgrade (WT 7093)

Materials	Total Percentage of Materials	Percentage Recycled Materials	Percentage Disposed Materials	Collection Hauler/ Facility	Actual Waste Amount/ Comments (attach receipts)
Asphalt/ Concrete					
Dirt					
Brick/ Masonry					
Wood					
Metals					
Other (painted wood, drywall)					
TOTAL					
	<i>This column should total 100%</i>	<i>This column should total at least 50%</i>			

If the Contractor were unable to meet recycling goals, please provide an explanation:

---



---

Other comments: \_\_\_\_\_

---

**I CERTIFY THAT THE ABOVE INFORMATION IS TRUE & CORRECT TO THE BEST OF MY KNOWLEDGE.**

Prepared by: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_

**SHEET 2 OF 2**

**END OF SECTION**

## SECTION 03 30 00

### CAST-IN-PLACE CONCRETE

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. Requirements for cast-in-place concrete work.

##### 1.2 REFERENCED SECTIONS

- A. The following Section is referenced in this Section
  - 1. Section 01 33 00 – Submittals

##### 1.3 SUBMITTALS

- A. Comply with Section 01 33 00.
- B. Shop Drawings
  - 1. Reinforcing Steel: Prepare shop fabrication and field installation drawings in accordance with CRSI Manual of Standard Practice and ACI SP.
  - 2. Layout drawings for construction joints.
- C. Product Data: Waterstops, curing compound data.
- D. Concrete Mix Design: Data on the concrete mix, including aggregate gradations and admixtures, in accordance with ASTM C94.
- E. Quality Control Submittals
  - 1. Manufacturer's application instructions for curing compound.
  - 2. Ready-mix delivery tickets for each truck in accordance with ASTM C94.

##### 1.4 QUALITY ASSURANCE

- A. Supplier Qualifications: A minimum of 5 years' experience manufacturing ready-mixed concrete and that complies with ASTM C94 for production facilities and equipment.
- B. Source Limitations: Use the same brand of cement from the same manufacturer's plant, obtain aggregate from one source, and obtain admixtures through one source from a single manufacturer.
- C. Concrete and Reinforcement: Unless otherwise specified, meet the requirements of ACI 301 and 318.
- D. Hot Weather Concreting: Conform to ACI 305R.

## **PART 2 - PRODUCTS**

### **2.1 FORMWORK**

- A. Exposed Areas: Use hard plastic finished plywood.
- B. Unexposed Areas: Use new ship lap or plywood.
- C. Earth cuts may be used for forming footings.

### **2.2 CONCRETE**

- A. Ready-mixed meeting ASTM C94, Option A.
- B. Portland Cement: ASTM C150, Type II.
- C. Aggregates: Furnish from one source.
  - 1. Natural Aggregates
    - a. Free from deleterious coatings and substances in accordance with ASTM C33, except as modified herein.
    - b. Free of materials and aggregate types causing pop outs, discoloration, staining, or other defects on surface of concrete.
  - 2. Non-Potentially Reactive: In accordance with ASTM C33, Appendix XI, paragraph X1.1.
  - 3. Aggregate Soundness: Test for fine and coarse aggregates in accordance with ASTM C33 and ASTM C88 using sodium sulfate solution.
  - 4. Fine Aggregates
    - a. Clean, sharp, natural sand.
    - b. ASTM C33.
    - c. Materials Passing 200 Sieve: 4 percent maximum.
    - d. Limit deleterious substances in accordance with ASTM C33, Table 1 with material finer than 200 sieve limited to 3 percent, coal and lignite limited to 0.5 percent.
  - 5. Coarse Aggregate
    - a. Natural gravels, combination of gravels and crushed gravels, crushed stone, or combination of these materials containing no more than 15 percent flat or elongated particles (long dimension more than five times the short dimension).
    - b. Materials Passing 200 Sieve: 0.5 percent maximum.
- D. Admixtures: Do not use admixtures that contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.
  - 1. Air-Entraining: ASTM C260.
  - 2. Water-Reducing: ASTM C494, Type A or D.

3. Superplasticizers: ASTM C494, Type F or G.
4. Fly Ash: ASTM C618, Class C or F.
5. Color Pigments: Inert mineral or metal oxide pigments, natural or synthetic; resistant to lime and other alkalis.

E. Concrete Mix Design

1. Minimum Compressive Field Strength: 4,000 psi at 28 days when cured and tested in accordance with ASTM C31 and C39.
2. Coarse Aggregate Size: 1-1/2 inches and smaller.
3. Slump Range: 3 to 5 inches.
4. Air Entrainment: Between 1 and 3 percent by volume.
5. Water Reducers: Use in concrete without plasticizers.

F. Proportions

1. Design mix to meet aesthetic and structural concrete requirements.
2. Water-cement ratio (water-cement plus fly ash ratio) shall control amount of total water added to concrete as follows:

Coarse Aggregate Size	W/C Ratio
1-1/2 inch	0.48
1 inch	0.45

3. Minimum Cement Content (Combined Cement Plus Fly Ash Content):
  - a. 540 pounds per cubic yard for concrete with 1½ inch maximum size aggregate.
  - b. 564 pounds per cubic yard for 1 inch maximum size aggregate.
4. Increase cement content (combined cement plus fly ash content), as required meeting strength requirements and water-cement ratio.
5. Fly Ash Content: minimum 20 percent, maximum 50 percent by weight of total cement content.

- G. Mixing: Minimum 70 and maximum 270 revolutions of mixing drum. Non-agitating equipment is not allowed.

## 2.3 REINFORCING STEEL

- A. Deformed Bars: ASTM A615, Grade 60.
- B. Welded Wire Reinforcement: ASTM A185, fabricated from as-drawn steel wire into flat sheets.
- C. Bar Supports:
  1. For Slab Rebar: Concrete blocks or plastic bar supports.

2. For Rebar in Walls, Beams, Columns, and Slabs Exposed to View: Galvanized steel chairs with plastic tips or plastic bar supports and side form spacers.

## 2.4 ANCILLARY MATERIALS

### A. Curing Compound

1. Material: Solvent based containing chlorinated rubber solids in accordance with ASTM C309, with additional requirement that the moisture loss not exceed 0.030 gram per centimeter squared per 72 hours.
2. Manufacturers and Products
  - a. Master Builders Co.; Masterkure CR
  - b. Euclid Chemical Co.; Euco Super Floor Coat

### B. Epoxy Bonding Agent and Adhesives (for Binding New Concrete to Existing Concrete)

1. Epoxies: Two component material for use on dry or damp surfaces and conforming to the requirements of ASTM C881.
2. Apply in accordance with manufacturer's recommendations.
3. Manufacturers: One of the following or equal:
  - a. Sika Armatec 110 EPOCEM; Sika Chemical Corporation.
  - b. CCS Bonder Paste LWL; Chemco Systems.

### C. Waterstops

1. General: Place hydrophilic and/or rubber dumbbell type or center bulb type waterstops at construction joints and other joints as specified and indicated on the Drawings.
2. Hydrophilic Waterstops:
  - a. Use: For concrete repairs or when attaching new concrete to existing structures.
  - b. Manufacturers: One of the following or equal:
    - 1) Greenstreak, Hydrotite CJ.
    - 2) Tremco, Parastop II.
  - c. Installation: As indicated on the Drawings and in accordance with manufacturer's instructions.
3. Rubber Waterstops
  - a. Use: At new construction joints where indicated on the Drawings.
  - b. Material: PVC or rubber waterstops manufactured by one of the following, or equal:
    - 1) Greenstreak.
    - 2) Progress Unlimited.

- 3) Williams Products.
  - c. Size:
    - 1) Construction and Contraction Joints. 6-inch flat dumbbell type.
    - 2) Expansion Joints: 9-inch wide dumbbell with hollow center bulb.
- D. Vapor Barrier
  - 1. Material: 15 mil, multilayer plastic, 0.01 minimum permeance rating.
  - 2. Manufacturers: One of the following or equal:
    - a. StegoWrap, Stego Industries.
    - b. Premoulded Membrane Vapor Seal with Plasmatic Corel, W. R. Meadows.
- E. Expansion Joint Filler: ASTM D994, 1/2-inch thick, or as shown.
- F. Surface Hardener
  - 1. Premixed, noncolored, nonmetallic Master Builders, Mastercron; Sonneborn, Harcol; A. C. Horn Inc., Durafax; Burke Company Non-Metallic Floor Hardner; or equal.
  - 2. Apply in accordance with manufacturer's instructions.
- G. Concrete for Electrical Conduits
  - 1. Concrete encasement for electrical conduit shall contain 3 pounds of red oxide per sack of cement.

## **PART 3 - EXECUTION**

### **3.1 FORMWORK**

- A. Design, construct, erect, brace and maintain formwork in accordance with ACI 301.
- B. Form Ties
  - 1. Fixed conical or spherical type inserts that remain in contact with forming material and allow for dry packing of form tie holes.
  - 2. Space ties to withstand pressures and to limit deflection of forms to acceptable limits.
  - 3. Wire ties are not acceptable.
- C. Construction
  - 1. In accordance with ACI 347.
  - 2. Make joints tight to prevent escape of mortar and to avoid formation of fins.
  - 3. Brace as required to prevent distortion during concrete placement.
  - 4. On exposed surfaces locate form ties in uniform pattern or as shown.

5. Construct so ties remain embedded in the wall with no metal within 1-inch of concrete surface when forms, inserts, and tie ends are removed.
- D. Form Removal
1. Remove after concrete has attained 28 day strength, or approval is obtained in writing from Engineer.
  2. Remove forms with care to prevent scarring and damaging the surface.

### 3.2 PLACING REINFORCING STEEL

- A. Place reinforcing steel in accordance with CRSI Recommended Practice for Placing Reinforcing Bars.
- B. Field bending or welding of reinforcing bars will not be allowed.
- C. Bar Supports: Provide in sufficient quantity to prevent sagging and to support bars during concrete placement.
- D. Splices and Laps
  1. Top Bars: Horizontal bars placed such that 12 inches of fresh concrete is cast below in single placement.
  2. Horizontal wall bars are considered top bars.
  3. Bar lap splices shall conform to General Structural Notes on the Drawings.
  4. Tie splices with 18-gauge annealed wire as specified in CRSI Standard.

### 3.3 PLACING CONCRETE

- A. Place concrete in accordance with ACI 301.
- B. Before placing concrete:
  1. Check reinforcing steel for proper placement and correct discrepancies.
  2. Remove excessive rust, mill scale, dirt, oil and other material from rebar that may adversely affect bonding to concrete.
  3. Remove water from excavation and debris and foreign material from forms.
- C. Before depositing new concrete on existing concrete, clean surface using sandblast or other mechanical means to obtain a 1/4 inch rough profile, and apply epoxy bonding agent in accordance with the manufacturer's instructions.
- D. Place concrete as soon as possible after leaving mixer, without segregation or loss of ingredients, without splashing forms or steel above, and in layers not over 2 feet deep. Place within 1-1/2 hours after adding cement to mix.
- E. Placement Limitations: 8 feet maximum vertical drop to final placement, when not guided with chutes or other devices to prevent segregation due to impact with reinforcing.



F. Hot Weather

1. Prepare ingredients, mix, place, cure, and protect in accordance with ACI 305R.
2. Maintain concrete temperature below 80 degrees F at time of placement, or furnish test data or provide other proof that admixtures and mix ingredients do not produce flash set plastic shrinkage, or cracking due to heat of hydration. Ingredients may be cooled before mixing to maintain fresh concrete temperatures at 80 degrees F or less.
3. Make provisions for windbreaks, shading, fog spraying, sprinkling, ice, or wet cover, or other means to provide concrete with temperature specified.
4. Maximum allowable temperature differential between reinforcing steel and concrete: Not greater than 20 degrees F at the time of concrete placement.

3.4 COMPACTION

A. Vibrate concrete as follows:

1. Apply approved vibrator at points spaced not farther apart than vibrator's effective radius.
2. Apply close enough to forms to vibrate surface effectively but not damage form surfaces.
3. Vibrate until concrete becomes uniformly plastic.
4. Vibrator must penetrate fresh placed concrete and into previous layer of fresh concrete below.

3.5 CONSTRUCTION JOINTS

A. Locate as shown or as approved.

B. Maximum Spacing Between Construction Joints: 40 feet, unless otherwise indicated.

3.6 CRACK CONTROL JOINTS

A. Provide crack control joints in concrete slabs on grade, curbs, gutters, sidewalks and other concrete flatwork as follows:

1. Install crack control joints by use of grooving tool on fresh concrete or saw-cut by use of a saw designed for crack control joints as soon as the concrete hardens sufficiently to support the saw, however, no longer than 12 hours after concrete placement.
2. Depth: 1/4 the thickness of the slab.
3. Frequency: Unless otherwise indicated,
  - a. At least 2 times the slab thickness in feet
  - b. (6-inch slab = 12 foot on center).
  - c. Rectangular slabs: Maximum spacing 1-1/2 to 1

### 3.7 SLAB FINISHINES

#### A. General

1. The finishes specified herein include surface finishes, treatments and toppings for floors and slabs. Floors shall be sloped to drain uniformly. Unless otherwise specified, slope shall be minimum 1/8 inch per foot towards nearest drain. Where finish is not specified, floor slabs shall receive steel troweling. Dry cement shall not be used on new concrete surfaces to absorb excess moisture. Edges shall be rounded to a radius of 1/2 inch. Joints shall be grooved to a radius and depth of 1/2 inch each. Uneven-slope tolerance is 1/4-inch in 10 feet.

#### B. Float Finish

1. Conform to ACI 301, Section 11.7.2. Floating shall be performed with a hand or power-driven float. Floating of any one area shall be the minimum necessary to produce the finish specified. Floating shall compact and smooth the surface and close any cracks and checking of surfaces.

#### C. Broomed Finish

1. Conform to ACI 301, Section 11.7.4. Broomed finish shall be provided for walks, slabs on grade exposed to atmosphere, and where otherwise indicated or specified. Apply float finish, then a light broom finish to produce a profile that is parallel to the slab drainage.

#### D. Steel Trowel Finish

1. Conform to ACI 301, Section 11.7.3. Immediately after final troweling, the surface shall be cured and protected. Steel trowel finish shall be provided on chemical room floor unless specified otherwise. Surface hardener shall be troweled into the finished surface.

#### E. Non-slip Finish

1. After concrete has been screeded level and slightly hardened, sprinkle abrasive onto surface, wood float into concrete, and trowel abrasive into surface to obtain the proper non-slip finish with the exposed abrasive.

### 3.8 FINISHING AND PATCHING FORMED SURFACES

A. Unexposed Surfaces: Provide rough-formed concrete texture as imparted by form-facing material, fill form tie holes with nonshrink grout and grind off projections, fins, and rough spots.

B. Exposed Surfaces: Provide smooth-formed concrete texture as imparted by form-facing material, arranged in an orderly and systematic manner with a minimum number of seams. Fill form tie holes with nonshrink grout and grind off projections, fins, and rough spots. Where scheduled, apply rubbed surface as follows:

1. Smooth Rubbed Finish: Not later than one day after form removal, moisten concrete surfaces and rub with carborundum brick or another abrasive to

produce a uniform color and texture. Do not apply cement grout other than that created by the rubbing process.

2. Grout-Cleaned Finish: Wet concrete surfaces and apply grout of a consistency of thick paint to coat surfaces and fill small holes.
  - a. Mix one part portland cement to one and one-half parts fine sand with a 1:1 mixture of bonding admixture and water. Add white portland cement in amounts determined by trial patches so color of dry grout will match adjacent surfaces.
  - b. Scrub grout into voids and remove excess grout. When grout whitens, rub surface with clean burlap and keep surface damp by fog spray for at least 36 hours.
3. Cork-Floated Finish: Wet concrete surfaces and apply a stiff grout.
  - a. Mix one part portland cement and one part fine sand with a 1:1 mixture of bonding agent and water. Add white portland cement in amounts determined by trial patches so color of dry grout will match adjacent surfaces.
  - b. Compress grout into voids by grinding the concrete surface in a swirling motion, then finish the surface with a cork float.
- C. Patching Defective Areas: Patch defective areas and repair rough spots resulting from form release agent failure or other reasons to provide smooth uniform appearance.
  1. Cut out honeycombed and defective areas.
  2. Cut edges perpendicular to surface at least 1-inch deep. Do not feather edges. Soak area with water for 24 hours.
  3. Finish surfaces to match adjacent concrete.
  4. Keep patches damp for minimum 7 days or spray with curing compound to minimize shrinking.

### 3.9 PROTECTION AND CURING

- A. Protect fresh concrete from direct rays of sunlight, drying winds, and wash by rain.
- B. Keep concrete slabs continuously wet for a 7 day period. Intermittent wetting is not acceptable.
- C. Use curing compound only where approved by Engineer. Cure formed surfaces with curing compound applied in accordance with manufacturer's directions as soon as forms are removed and finishing is complete.
  1. Do not use curing compound on concrete surfaces that will be painted.
- D. Remove and replace concrete damaged by freezing.

### 3.10 FIELD QUALITY CONTROL

- A. Concrete Samples:
  - 1. Provide concrete for making composite samples for testing slump, air content, and for making cylinders for determination of compressive strength.
  - 2. Prepare samples in accordance with ASTM C172. Select trucks or batches of concrete on a random basis.
  - 3. Samples may be obtained at the discharge chute of the truck or at the point of discharge into forms.
- B. Sampling Frequency: One composite sample for each 100 cubic yards of structural concrete, or fraction thereof, of each concrete mixture placed in any one day.
- C. Evaluation will be in accordance with ACI 301, Chapter 17 and Specifications.
- D. Slump tests and concrete cylinders will be made by the Owner. Owner will handle cured test cylinders, transport to the testing laboratory and pay testing costs.
- E. Enforcement of Compressive Strength Requirements:
  - 1. Compressive strength of concrete will be considered acceptable if the following conditions are satisfied:
    - a. Averages of all sets of 3 consecutive strength test results are greater or equal to the specified compressive strength.
    - b. No individual strength test (average of 2 cylinders) falls below specified compressive strength by more than 500 pounds per square inch.
  - 2. Whenever one, or both, of 2 conditions stated above is not satisfied, provide additional curing of affected portion of structure, then obtain test cores from the affected area.
    - a. Obtain 3 test cores in accordance with ASTM C 42 and ACI 318.
    - b. Concrete will be considered acceptable if the average compressive strength of the 3 test cores is equal to at least 90 percent of the specified 28-day compressive strength and no single core is less than 80 percent of the specified 28-day compressive strength.
    - c. Concrete will be designated as defective when the specified conditions are not achieved.
    - d. Fill core holes with concrete.
  - 3. Engineer may require the Contractor to strengthen defective concrete by means of additional concrete, additional reinforcing steel, or replacement of defective concrete, all of the Contractor's expense.

**END OF SECTION**

## SECTION 03 60 00

### GROUT

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. Grout for uses other than masonry.

##### 1.2 REFERENCED SECTIONS

- A. The following Sections are referenced in this Section
  - 1. Section 01 33 00 – Submittals
  - 2. Section 03 30 00 – Cast-in-Place Concrete

##### 1.3 REFERENCES

- A. The publications referred to hereinafter form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only. The latest edition of referenced publications in effect at the time of the bid shall govern. In case of conflict between the requirements of this section and the listed standards, the requirements of this section shall prevail.

Reference	Title
ASTM C33	Concrete Aggregates
ASTM C40	Organic Impurities in Fine Aggregates for Concrete
ASTM C88	Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
ASTM C117	Material Finer Than 75 um (No. 200) Sieve in Mineral Aggregates by Washing
ASTM C136	Sieve Analysis of Fine and Coarse Aggregates
ASTM C150	Portland Cement
ASTM C289	Potential Reactivity of Aggregates (Chemical Method)
ASTM C494	Chemical Admixtures for Concrete
ASTM C881	Epoxy-Resin-Base Bonding Systems for Concrete
ASTM D2419	Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate
CRD-C621	Corps of Engineers Specification for Nonshrink Grout

##### 1.4 SUBMITTALS

- A. Comply with Section 01 33 00.
- B. Manufacturer's Data:
  - 1. Dry pack grout
  - 2. Cement grout

3. Nonshrink grout, non-metallic
  4. Nonshrink grout, metallic
  5. Pressure grout
  6. Epoxy grout
  7. Polymer concrete
- C. Laboratory Test Reports:
1. Test reports on previously tested materials shall be accompanied by the manufacturer's statement that the previously tested material is the same type, quality, manufacture, and make as that proposed for use in this project.
  2. Test reports are required for the following:
    - a. Cement
    - b. Aggregates
    - c. Bonding compounds
    - d. Admixtures

## **PART 2 - PRODUCTS**

### **2.1 MATERIALS**

- A. Cement
1. Portland cement shall be ASTM C150 Type II or Type V, low alkali, containing less than 0.60 percent alkalies.
- B. Aggregate
1. General:
    - a. Aggregate shall be nonreactive and shall be washed before use.
    - b. When sources of aggregate are changed, test reports shall be provided for the new material. The tests specified shall be performed prior to commencing grout work.
  2. Fine Aggregate:
    - a. Fine aggregate shall be hard, dense, durable particles of either sand or crushed stone regularly graded from coarse to fine and shall conform to ASTM C33 as modified herein.
    - b. When tested in accordance with ASTM C136, gradation shall be such that 100 percent by weight will pass a standard No. 8 mesh sleeve and no less than 45 percent by weight will pass a standard No. 40 mesh sieve.
    - c. Variation from the specified gradations in individual tests will be acceptable if the average of three consecutive tests is within the specified limits and the variation is within the permissible variation listed below:

US standard sieve size	Permissible variation in individual tests, percent
30 or coarser	2
50 or finer	0.5

3. Other tests shall be in accordance with the following specifications:

Test	Test Method	Requirements
Organic Impurities	ASTM C40	Color lighter than standard
Amount of Material Passing No. 200 Sieve	ASTM C117	3% maximum by weight
Soundness	ASTM C88	10% maximum loss with sodium sulfate
Reactivity	ASTM C289	Innocuous aggregate
Sand Equivalent	ASTM D2419	Minimum 80

#### C. Admixtures

##### 1. General:

- a. Admixtures shall be compatible with the grout. Calcium chloride or admixtures containing calcium chloride are not acceptable.
- b. Admixtures shall be used in accordance with the manufacturer's recommendations and shall be added separately to the grout mix.

##### 2. Water Reducing Retarder:

- a. Water reducing retarder shall be ASTM C494 Type D .
- b. Master Builders Pozzolith 300-R, Sika Corporation Plastiment, or equal.

##### 3. Lubricant for Cement Pressure Grouting:

- a. Lubricant additive for cement pressure grouting shall be Intrusion Prepakt Intrusion Aid, Sika Intraplast N, or equal.

#### D. Water

1. Water for washing aggregate, for mixing and for curing shall be free from oil and deleterious amounts of acids, alkalies, and organic materials;
2. shall not contain more than 1000 mg/1 of chlorides as Cl, nor more than 1300 mg/1 of sulfates as SO<sub>4</sub>;
3. and shall not contain an amount of impurities that may cause a change of more than 25 percent in the setting time of the cement nor a reduction of more than five percent in the compressive strength of the grout at 14 days when compared with the result obtained with distilled water.
4. Additionally, water used for curing shall not contain an amount of impurities sufficient to discolor the grout.

## 2.2 GROUT

### A. Drypack Grout

1. Drypack grout shall be a mixture of approximately one part cement, 1-1/2 to 2 parts sand, water reducing retarder, and sufficient water to make a stiff workable mix.

### B. Cement Grout

1. Cement grout shall be a mixture of one part cement, two parts sand, proportioned by volume, admixtures for pressure grouting, and sufficient water to form a workable mix.

### C. Nonshrink Grout, Non-Metallic

1. Nonshrink, nonmetallic aggregate grout shall be Five Star Products, Inc.
2. Five Star Grout, Chemrex Inc. Masterflow 928, Euclid Chemical Co. High-Flow Grout, or equal.

### D. Nonshrink Grout, Metallic

1. Nonshrink, metallic grout shall be Chemrex Inc. Embeco 636 Plus Grout, Euclid Chemical Co. High-Flow Metallic Grout, or equal.

### E. Epoxy Grout for Crack Repair

1. Except as noted below, epoxy grout shall be a high modulus, two-component, moisture insensitive, 100 percent solids, thermosetting modified polyamid epoxy compound. The consistency shall be a paste form capable of not sagging in horizontal or overhead anchoring configurations. Material shall conform to ASTM C881 Type 1, Grade 3, such as Chemrex Inc. Concsive Paste LPL, Sika Corporation Sikadur Hi-Mod Series, Adhesive Technology Corporation Solidbond 200 or equal, and shall have a heat deflection temperature in excess of 130 degrees F.
2. Epoxy for pressure grouting/crack injection shall be a two-component, moisture insensitive, high modulus, injection grade, 100 percent solids, blend of epoxy-resin compounds. The consistency shall be as required to achieve complete penetration in hairline cracks and larger. Material shall conform to ASTM C881 Type 1 Grade 1, such as Sika Corporation Sikadur 52, Chemrex Inc. Concsive LV1, Adhesive Technology Corporation SLV 300 series, or equal.

### F. Polymer Concrete (For Resurfacing or Patching)

1. Polymer concrete (for resurfacing or patching) shall consist of a liquid binder and dry aggregate mixed together to make a mortar or grout of a consistency as required for the application.
2. The liquid binder shall be a chemical and oil resistant, stress relieved, low modulus, moisture insensitive, two-component epoxy-resin compound. The consistency shall be similar to lightweight oil for proper mixing with aggregate.



3. Material shall conform to ASTM C881 Type 3 Grade 1, such as Sika Corporation Sikadur Lo-Mod series, Adhesive Engineering Concrete 1470, Adhesive Technology Corporation 400 series, or equal.
4. The aggregate shall be oven dry in sealed packages until time of mixing, and shall be of size and consistency compatible with recommendations of manufacturer of liquid binder for intended application.

G. PRESSURE GROUTING EQUIPMENT

1. Pressure grouting equipment shall include a mixer and holdover agitator tanks and shall be designed to place grout at pressures up to 50 psi. Gages shall be provided to indicate pressure used. The mixer shall be provided with a meter capable of indicating to one-tenth of a cubic foot the volume of grout used.

### PART 3 - EXECUTION

#### 3.1 GENERAL

- A. Bonding compound for use with grout is specified in Section 03 30 00. Primer, if required for polymer concrete, shall be provided per manufacturer's recommendation.

#### 3.2 DRYPACK GROUT

- A. Drypack grout shall be used for built-up surfaces, setting miscellaneous metal items and minor repairs.
- B. Surfaces required to be built up with drypack grout shall be roughened by brushing, cleaned, and coated with the bonding compound specified in Section 03 30 00 before the application of the grout. The drypack grout shall be applied immediately following the application of the bonding compound in bands or strips to form a covering of the required thickness. The covering shall be smooth. Construction joints in the grout shall be sloped and shall be cleaned and wetted before application is resumed. Drypack grout shall be cured in accordance with Section 03 30 00.
- C. Grout shall not be placed during freezing weather unless adequate protection is provided.

#### 3.3 CEMENT GROUT

- A. Cement grout shall be used for filling nonbearing portions of equipment pads and pressure grouting.
- B. Except for the specialized equipment for pressure grouting, mixing and placing apparatus shall be similar to that normally used for cast-in-place concrete. Grout shall be mixed for a period of at least 1 minute. Diluted grout shall be agitated to keep ingredients mixed.

### 3.4 NONSHRINK GROUT

- A. Nonshrink, metallic aggregate grout shall be used for the bearing surfaces of machinery and equipment bases, column base plates and bearing plates at dry, interior locations. Nonshrink, non-metallic aggregate grout shall be used for the bearing surfaces of machinery and equipment bases, column base plates, and bearing plates at damp or exterior locations as well as for setting handrail, guardrail, or fence posts in pipe sleeves. Grout shall meet the requirements of CRD-C621 and shall be placed in accordance with manufacturer's instructions.

### 3.5 EPOXY GROUT

- A. Epoxy grout shall be used for repairing cracks by pressure grouting or gravity flow in structural concrete. Concrete shall be primed in accordance with the grout manufacturer's instructions.

### 3.6 PRESSURE GROUTING

- A. Prior to grouting, systems and holes to be grouted shall be washed clean. Washing is not required for grouting soil voids outside pipe cylinders or casing pipes. Grouting, once commenced, shall be completed without stoppage. In case of breakdown of equipment, the Contractor shall wash out the grouting system sufficiently to ensure fresh grout and adequate bond and penetration will occur upon restarting the grouting operation. Grout pressure shall be maintained until grout has set.

**END OF SECTION**

## SECTION 05 50 00

### METAL FABRICATIONS

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. Furnishing all material, supplies, equipment, tools, transportation and facilities and performing all labor and services necessary for, required in connection with or properly incidental to furnishing and installing miscellaneous metal, as described in this section of the specifications, shown on the accompanying Plans, or reasonably implied therefrom.

##### 1.2 REFERENCED SECTIONS

- A. The following Sections are referenced in this Section
  - 1. Section 01 33 00 – Submittals
  - 2. Section 09 96 00 –Coating Systems

##### 1.3 SUBMITTALS

- A. Comply with the Section 01 33 00.
- B. Certified test reports. Before delivery of any miscellaneous metalwork, the Contractor shall provide certificates which attest to their material compliance with these specifications.
- C. Layout or installation shop drawings for all miscellaneous metals, including but not limited to, seat angles, brackets, flashing, pipe supports.

#### PART 2 - PRODUCTS

##### 2.1 MATERIALS

- A. Wide Flange Beams: ASTM A992.
- B. Structural Steel Shapes (other than Wide Flange Beams) and Plates: ASTM A36.
- C. Structural Tubing (HSS): ASTM A500, Grade B.
- D. Structural Pipe: ASTM A53, Grade B or ASTM A501.
- E. Stainless Steel: ASTM A320, Type 316, as specified
- F. Machine Bolts, Nuts, and Washers: ASTM A307.
- G. High Strength Bolts: ASTM A325 bearing-type connections.
- H. Hardened Steel Washers: ASTM F436.
- I. Heavy Hex Nuts: ASTM A563.
- J. Welded Headed Studs: ASTM A108.

- K. Welding Materials: AWS D1.1 and D1.3; type required for materials being welded.
- L. Cold-Formed Steel
  - 1. Framing including stud and track sections, clips, light gauge angles and break shapes.
  - 2. Material shall be supplied by a manufacturer who is a member of the Steel Stud Manufacturer's Association (SSMA) and shall be ASTM A 653 Grade 33 for 18 GA and thinner material and ASTM A 653 Grade 50 for 16 GA and thicker material.
  - 3. Straps, Ties, and Connectors: Simpson Strong-Tie Company Inc. or approved equal.
  - 4. Fasteners shall be self-drilling sheet metal screws: Tek Screws by ITW Buildex or equal.

## 2.2 FABRICATION

- A. Fabricate structural steel members in accordance with AISC Specification.
- B. Conform to Chapter 22, California Building Code; 2013 Edition (CBC).
- C. Welding
  - 1. Welder qualification requirements, welding procedures, etc. according to AWS D1.1 and D1.3.
  - 2. Employ only certified welders.
  - 3. Butt welds: Full penetration welds unless otherwise noted.
  - 4. Arc welding electrodes: E70 Series.
  - 5. All welds on hand and guardrails are to be ground smooth.
  - 6. Tie plates: Welded as shown on the Plans.
- D. Holes for bolts or rivets shall be punched or drilled 1/16-inch larger than normal bolt. Holes in column base plates may be 5/16-inch larger than anchor bolt diameter only if washers field welded to the base plate are provided under the nuts.

## 2.3 MISCELLANEOUS STEEL METALWORK

- A. Other miscellaneous steel metalwork including embedded and nonembedded steel metalwork, hangers, and inserts shall be stainless steel 316 for submerged environment, otherwise shall be stainless steel 304, or as specified in the specifications or plans.

## 2.4 FINISH

- A. Clean, prepare and shop prime all steel work. Do not prime surfaces to be field welded or in contact with concrete.

## PART 3 - EXECUTION

### 3.1 STEEL ERECTION

- A. Erect structural steel in accordance with AISC Specification.
- B. Make provision for erection loads, and for sufficient temporary bracing to maintain structure safe, plumb and in true alignment until completion of erection and installation of permanent bracing.
- C. Do not field cut or alter structural members without approval of Engineer.
- D. After erection, prime welds, abrasions, and surfaces not shop primed, galvanized, except surfaces to be in contact with concrete. Use a primer consistent with shop coat. Use primer recommended for galvanized surfaces.
- E. Bolting: Securely bolt or weld the work as erection progresses to provide for all dead load, lateral forces and erection stresses.

### 3.2 MISCELLANEOUS METALWORK

- A. General
  - 1. Fieldwork shall not be permitted on galvanized items. Drilling of bolts or enlargement of holes to correct misalignment will not be allowed.
  - 2. Dissimilar metals shall be protected from galvanic corrosion by means of pressure tapes, coatings and isolators. Aluminum in contact with concrete shall be protected by a heavy coat of bituminous paint.
  - 3. Metalwork to be embedded in concrete shall be placed accurately and held in correct position while the concrete is placed or, if specified, recesses or blockouts shall be formed in the concrete. The surfaces of metalwork in contact with or embedded in concrete shall be thoroughly cleaned. If accepted, recesses may be neatly cored in the concrete after it has attained its design strength and the metalwork grouted in place.
- B. Seat Angles, Supports, and Guides
  - 1. Seat angles for grating and supports for floor plates shall be set so that they are flush with the floor and also maintain the grating and floor plates flush with the floor.
- C. Fabrication
  - 1. Holes shall be punched 1/6-inch larger than the nominal size of the bolts, unless otherwise specified. Whenever needed, because of the thickness of the metal, holes shall be subpunched and reamed or shall be drilled.
  - 2. Fabrication including cutting, drilling, punching, threading and tapping required for miscellaneous metal or adjacent work shall be performed prior

to hot-dip galvanizing.

- D. Fasteners for aluminum shall be stainless steel. Steel other than stainless steel shall be isolated from aluminum with stainless steel, neoprene, or other approved material.

### 3.3 FABRICATIONS REQUIREMENTS

- A. Steel members, fabrications and assemblies shall be galvanized after fabrication in accordance with ASTM A123. Steel items weighing 100 pounds or less shall be hot-dip zinc coated. Anchor bolts and nuts 5/8 inch and larger shall be hot-dip zinc coated in accordance with ASTM A153. Anchor bolts and nuts smaller than 5/8-inch and all other bolts, screws, nuts, washers and other minor steel fasteners shall be mechanically zinc coated. Fabrication practices for products to be galvanized shall be in accordance with applicable portions of ASTM A143, A384 and A385.

### 3.4 COATING REQUIREMENTS

- A. Coatings shall conform to Section 09 96 00.

### 3.5 REPAIR OF DEFECTIVE GALVANIZED COATING

- A. Where zinc coating has been damaged after installation, substrate surface shall be first cleaned and then repaired with zinc dust-zinc oxide coating in accordance with ASTM A780. Application shall be as recommended by the zinc dust-zinc oxide coating manufacturer. Coating shall consist of multiple coats to dry film thickness of eight mils.
- B. Items not physically damaged, but which have insufficient or deteriorating zinc coatings, and items damaged in shipment or prior to installation, shall be removed from the project site for repair by the hot-dip zinc coating method.

### 3.6 CLEANING

- A. After installation, damaged surfaces of shop primed metals shall be cleaned and touched up with the same material used for the shop coat.

**END OF SECTION**

## SECTION 05 50 01

### ANCHOR BOLTS AND ANCHORING DEVICES

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. Anchor bolts, concrete anchors, adhesive anchors, and other anchoring devices.

##### 1.2 REFERENCED SECTIONS

- A. The following Section is referenced in this Section
  - 1. Section 01 33 00 – Submittals

##### 1.3 SUBMITTALS

- A. Comply with Section 01 33 00.
- B. Product Data: Manufacturer's data for nuts, bolts, concrete anchors, chemical anchors and other fasteners.
- C. Catalog data and ICBO reports for each type of anchor bolt.

##### 1.4 QUALITY ASSURANCE

- A. For applications that require special inspection in accordance with building codes, coordinate the progress of the Work with the required inspection activities.

#### PART 2 - PRODUCTS

##### 2.1 MATERIALS

- A. Unless otherwise specified or indicated on the Drawings, materials of construction for anchoring devices shall conform to the following:
  - 1. Anchor bolts and other anchoring devices, nuts and washers installed indoors: Type 304 stainless steel.
  - 2. Anchor bolts and other anchoring devices, nuts and washers installed outdoors or in locations exposed to water: Type 316 stainless steel.
    - a. Locations exposed to wastewater includes:
    - b. Below tops of walls of water-containing structures.
    - c. Underside of roof, slab or walkways of enclosed water-containing structures.
    - d. Dry side of walls on water-containing structures.

## 2.2 CAST-IN-PLACE ANCHOR BOLTS

### A. Locations

1. Use cast-in-place anchor bolts:
  - a. In locations indicated on the Drawings.
  - b. To anchor engine-driven equipment and equipment with motors 3 horsepower and larger.

### B. Cast-in-Place Anchor Bolts

1. Material: Stainless steel conforming to ASTM A320.
2. Minimum Length of Bolt: As indicated on the Drawings. When not indicated, provide bolt length such that the length of the embedded anchor is at least 10 bolt diameters.
3. Anchor bolts shall be headed. Do not use hooked anchor bolts.

## 2.3 CONCRETE ANCHORS

- A. Concrete Anchors: Drilled in place wedge-type anchors with threaded stud body, stainless steel expansion clip, nut and washer.
- B. Materials: Type 304 or Type 316 stainless steel, depending upon installed location.
- C. Code Compliance: Test in accordance with, and comply with requirements of, ASTM E 488 and ICC-ES AC193.
- D. Manufacturers: One of the following or equal:
  1. Simpson Strong-Bolt 2 (Concrete); Simpson Wedge-All (Masonry).
  2. Hilti Kwik Bolt TZ (Concrete); Hilti Kwik Bolt 3 (Masonry).

## 2.4 STUDS

- A. Material: Conforming to ASTM A 108 with 50,000 pounds per square inch minimum yield strength, and 60,000 pounds per square inch minimum tensile strength.
- B. Manufacturers: One of the following or equal:
  1. Nelson Stud Welding Company, S3L Shear Connectors or H4L Concrete Anchors.
  2. Stud Welding Products, Headed Concrete Anchors and Shear Connectors or Concrete Anchors.

## 2.5 ADHESIVE ANCHORS

- A. Applications: Use for bonding threaded rods and concrete reinforcing bars to hardened concrete and grouted cement masonry. Do not use in overhead applications, in chlorine gas environments, or where anchor may be exposed to machine oil or diesel oil.



- B. Code Compliance: Test in accordance with, and comply with requirements of, ASTM E 488 and ICC-ES AC58.
- C. Materials
  - 1. Epoxy Adhesive: Two component, injectable epoxy adhesive.
  - 2. Concrete Reinforcing Bars: Grade 60.
  - 3. Threaded Rods: Type 304 stainless steel all-thread rod conforming to ASTM F 593.
- D. Manufacturers: One of the following or equal:
  - 1. Simpson SET-XP (Concrete); Simpson SET (Masonry).
  - 2. Hilti HIT-HY 200 (Concrete); Hilti HIT-HY 70 (Masonry).

## **PART 3 - EXECUTION**

### **3.1 GENERAL ANCHORING REQUIREMENTS**

- A. Use equipment shop drawings, anchorage layout drawings, and anchor bolt layout templates to accurately position anchor bolts.
- B. Install anchor bolts, concrete anchors and other anchoring devices with at least 2 threads projecting beyond the nut, but no more than 1/2-inch projecting beyond the nut.
- C. Prior to installing nuts, coat threads of stainless steel bolts with material to prevent galling of threads.
  - 1. Manufacturers: One of the following or equal:
    - a. Never Seez Compound Corporation, Never-Seez.
    - b. Oil Research, Inc., WLR No. 111.
- D. Tighten nuts on anchor bolts, concrete anchors and other anchoring devices to the "snug-tight" condition, defined as tightness attained by a few impacts of an impact wrench or the full effort of a man using an ordinary wrench.

### **3.2 CAST-IN-PLACE ANCHOR BOLTS**

- A. Do not use expansion type concrete anchors or adhesive anchors as substitution for cast-in-place anchor bolts.
- B. Accurately place anchor bolts to be embedded in concrete within the formwork and perpendicular to surface from which they will project. Secure in correct position while concrete is placed.
- C. Do not allow anchor bolts to touch reinforcing steel. Where anchor bolts are within 1/4 inch of reinforcing steel, isolate with a minimum of 4 wraps of 10 mil polyvinyl chloride tape in area adjacent to reinforcing steel.
- D. In anchoring machinery bases subject to heavy vibration, use 2 nuts, with 1 serving as a locknut.

- E. Where bolts are indicated on the Drawings for future use, first coat thoroughly with non-oxidizing wax, then turn nuts down full depth of thread and neatly wrap exposed thread with waterproof polyvinyl tape.
- F. Where indicated on the Drawings, set anchor bolts in metal sleeves having inside diameter approximately 2 inches greater than the bolt diameter and a minimum of 10 bolt diameters deep. Fill sleeves with grout when equipment is grouted in place.

3.3 CONCRETE ANCHORS AND ADHESIVE ANCHORS

- A. Cast-in-place anchor bolts may be used in place of concrete anchors and adhesive anchors at Contractor’s option.
- B. Installation
  - 1. Drill holes using concrete drill bits and impact type drill motors. Hole diameter shall be in accordance with the manufacturer’s recommendations.
  - 2. Clean drilled hole using compressed air to dislodge and remove drilling dust.
  - 3. Accurately locate concrete anchors and set anchors with axis perpendicular to surfaces from which they will project.
  - 4. Do not disturb adhesive anchors until cure time has elapsed.
  - 5. Unless otherwise indicated on the Drawings or as required by structural calculations prepared by the equipment supplier, comply with minimum embedment lengths identified in the following table.

Diameter of Anchor or Bar, inches	Embedment Length for Concrete Anchors, inches	Embedment Length for Adhesive Anchors or Reinforcing Bars
1/4	1-3/4	As indicated on the Drawings
3/8	1-7/8	
1/2	2-1/4	
5/8	2-3/4	
3/4	3-1/4	

**END OF SECTION**

## **SECTION 07 90 00**

### **SEALANTS AND CAULKING**

#### **PART 1 - GENERAL**

##### **1.1 SECTION INCLUDES**

- A. Furnishing and installing sealants and caulking as required to install the equipment, piping and other materials.
- B. At Contractor's option, provide the sealant and caulking work by own forces, by a specialty contractor, or by the subcontractors for the various parts of the work who normally provide their own sealants and caulking, or by any combination of the above choices.

##### **1.2 REFERENCED SECTION**

- A. The following Section is referenced in this Section
  - 1. Section 01 33 00 – Submittals

##### **1.3 SUBMITTALS**

- A. Comply with Section 01 33 00.
- B. Manufacturer's Data
  - 1. Manufacturer's specifications, recommendations, and installation instructions for each type of sealant, caulking and associated miscellaneous material required.
  - 2. Include manufacturer's published data, letter of certification, or certified laboratory test report, indicating that each material complies with the requirements of the Contract Documents, and is intended for the uses and applications shown and/or specified.

#### **PART 2 - PRODUCTS**

##### **2.1 MATERIALS**

- A. Acceptable Manufacturers
  - 1. Polyurethane Sealants: Mameco International; Sika Chemical Corp.; Sonneborn-Contech; Tremco, Inc. (Dymeric); and Pecora (Dynatrol I or Dynatrol II).
  - 2. Silicone Sealants: General Electric Co.; Dow Corning Corp.; and Pecora.
  - 3. Compressible Sealant: Sandell Manufacturing Company, Inc.

- B. Sealants—General
  - 1. NSF 61 approved.
  - 2. Provide colors matching materials being sealed. Where compound is not exposed to view in finished work, provide manufacturer's color which has best performance.
  - 3. Provide non-sagging sealant for vertical joints.
  - 4. Sealants for horizontal joints may be self-leveling.
  - 5. Before use of any sealant, investigate its compatibility with joint surfaces, fillers and other materials in joint system. Use only compatible materials.
  - 6. Obtain sealing compounds from manufacturers who will provide manufacturers' field service representatives at project site for purpose of advising and instructing installers in proper procedures. Provide such services, at no expense to the Owner.
  - 7. Use compressible sealant where indicated.
  - 8. Sealant materials shall be commercial grade products.
- C. Sealant, Polyurethane: One or two component.
- D. Sealant, Silicone: One or two component.
- E. Joint Cleaner: As recommended by sealant manufacturer.
- F. Primer-Sealer: As recommended by sealant manufacturer.
- G. Bond Breaker: As recommended by sealant manufacturer.
- H. Sealant Backer Rod: Rod stock of polyethylene, polyethylene jacketed polyurethane foam, or other flexible, non-absorbent, non-bituminous material recommended by sealant manufacturer to:
  - 1. Control joint depth.
  - 2. Break bond of sealant at bottom of joint.
  - 3. Provide proper shape of sealant bead.
- I. Sealant, Compressible
  - 1. Size so that width of material is twice joint width.
  - 2. Foamed polyurethane strip saturated with polymerized polybutylene waterproofing on front face with non-reactive release agent that will act as bond breaker for applied sealant: Polytite-B.
- J. Adhesive, compressible sealant: Sandell No. 14.

## **PART 3 - EXECUTION**

### **3.1 PREPARATION**

- A. Installer shall inspect the work to which sealants and/or caulking is to be applied and notify the Contractor in writing, with copy to the Engineer, of all conditions detrimental to the timely completion of the work.
- B. Do not proceed with the work of this Section until all unsatisfactory conditions have been corrected in a manner acceptable to the manufacturer of the materials.

### **3.2 INSTALLATION**

- A. Seal building and any joints or areas which will permit penetration of moisture or access by insects or other pests. Make all joints water and airtight.
- B. Where required, prime joint surfaces. Limit application to surfaces to receive caulking. Mask off adjacent surfaces.
- C. Make depth of sealing compounds not more than 1/2 width of joint, but in no case less than 1/4-inch (6 mm).
  - 1. Sub-caulk joints that are deep, or joints without suitable backstop, to proper depth.
  - 2. Protect side walls of joint (to depth of caulking) with Sandell No. 3 tape.
  - 3. Install with adhesive on 2 faces in contact with sides of joints.
- D. If joint is too shallow for use of backer rod, apply bond breaker to back of joint as recommended by sealant manufacturer. If bond breaker is used, apply it carefully to avoid prevention of sealant bond to sides of joints.
- E. Use guns where possible to insure penetration and density. Finish joint densely and completely filled, producing a smooth surface.
- F. In all rooms, seal all penetrations and recessed items through the floors, walls and ceilings with concealed silicone sealant. This includes such items as electrical device cover plates, pipes, fire extinguisher cabinets, etc.

### **3.3 PROTECTION AND CLEANING**

- A. Areas adjacent to joints to be sealed shall be protected against smearing.
- B. Paper masking tape may be used if removed within ten minutes after the joint has been filled with sealant.
- C. Fresh compound that has been smeared on adjacent surfaces shall be immediately wiped off the surface with a clean rag, and all residue removed using methyl ethyl ketone, toluene, or other similar material, taking care not to damage the finish coating of the material being cleaned.

**END OF SECTION**

**(THIS PAGE LEFT BLANK INTENTIONALLY)**

## SECTION 11 00 00

### GENERAL REQUIREMENTS FOR EQUIPMENT

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. General requirements applicable to mechanical equipment and systems.
- B. Ensure mechanical equipment meets the requirements of this Section in addition to the specific requirements of the individual equipment specification Sections.

##### 1.2 REFERENCED SECTIONS

- A. The following Sections are referenced in this Section
  - 1. Section 01 33 00 – Submittals
  - 2. Section 01 75 17 – Equipment and System Testing

##### 1.3 GENERAL REQUIREMENTS

- A. Equipment shall be of new construction and comply with the following requirements:
  - 1. Designed for all stresses that may occur during fabrication, transportation, erection, and during continuous or intermittent operations.
  - 2. Adequately anchored, leveled, aligned, and ready for operation without binding or overloading of critical components or motors.
  - 3. Installed with necessary appurtenances required for proper operation and installation in a neat and workmanlike manner.
  - 4. Tested by factory trained service mechanics or engineers.

##### 1.4 UNIT RESPONSIBILITY

- A. Equipment systems shall be assembled as a unit by a single manufacturer responsible for the entire unit.
  - 1. Responsibility extends to selecting components of the system to assure compatibility, proper operation, and compliance with specified performance requirements.
  - 2. Unit responsibility does not relieve Contractor of responsibility to Owner for performance of the Work.

## 1.5 QUALITY ASSURANCE

### A. Arrangement

1. The arrangement of equipment shown on the Drawings is based upon information available at the time of design and is not intended to show exact dimensions peculiar to a specific manufacturer.
2. Some features of the illustrated equipment installation may require revision to meet actual equipment installation requirements.
3. Structural supports, foundations, connected piping, and valves shown may have to be altered to accommodate the equipment provided. Additional payment will not be made for such revisions and alterations.

### B. Balance:

1. Fully assemble all rotating elements in motors, pumps, blowers and centrifugal compressors before performing static and dynamic balance.
2. Where specified, submit balancing reports, demonstrating compliance with this requirement.

## 1.6 SUBMITTALS

### A. Comply with Section 01 33 00.

### B. General: Provide separate submittals for each equipment item or group of related equipment items.

### C. Equipment Anchorage: Submit anchor bolt sizing calculations.

### D. Bearing Life Calculations: Submit bearing L-10 life calculations in accordance with AFBMA requirements.

## 1.7 OPERATION AND MAINTENANCE MANUALS

### A. Furnish operation and maintenance manuals for each equipment system in accordance with the Division 1 requirements.

## 1.8 PROTECTION DURING SHIPMENT

### A. Shipping: Ship equipment in sealed, weather-tight, enclosed conveyances, and protected against damaging stresses during transport and handling.

### B. Bearing Housings: Wrap or otherwise seal to prevent contamination by grit and dirt, and tape closed ventilation and other types of openings.

### C. Repair any damaged materials to conform to the requirements of the Contract before the assembly is incorporated into the Work. The Contractor shall bear the costs arising out of dismantling, inspection, repair, and reassembly.



## **PART 2 - PRODUCTS**

### **2.1 PIPING CONNECTIONS ON EQUIPMENT**

- A. Flanges on Equipment: Conform to dimensions and drilling specified in ANSI B16.1, Class 125 unless otherwise required by Division 15 pipe specifications or the Drawings or manufacturer's installation requirements.
- B. Pipe Flanges: Conform to dimensions and drilling specified in AWWA C207, Class D, 125 lb flanges provided on connection pipe.
- C. Threaded Flanges: Flat faced with standard taper pipe thread conforming to ANSI B1.20.1.
- D. Pipe Threads: Conform in dimension and limits of size to ANSI B1.1, coarse thread series, Class 2 fit.
- E. Flange Assembly Bolts and Nuts
  - 1. Heavy pattern, hexagonal head, carbon steel machine bolts with heavy pattern, hot pressed, hexagonal nuts conforming to ANSI B18.2.1 and B18.2.2.
  - 2. Threads: Unified Screw Threads, Standard Coarse Thread Series, Class 2A and 2B, ANSI B1.1.

### **2.2 SHAFT COUPLINGS**

- A. Type and Rating: Non-lubricated, designed for a minimum of 50,000 hours operating life.
- B. Equipment with a driver greater than ½ horsepower, and where the input shaft of a driven unit is directly connected to the output shaft of the driver, shall have its two shafts connected by a flexible coupling which can accommodate angular misalignment, parallel misalignment and end float, and which cushions shock loads and dampens torsional vibrations.
- C. Provide couplings recommended by the coupling manufacturer for the specific application, considering horsepower, speed of rotation, and type of service.
- D. Install couplings in conformance to the manufacturer's instructions.

## 2.3 NAMEPLATES AND LIFTING EYES

- A. Nameplates: Provide on each item of equipment with the specified equipment name or abbreviation and equipment number. Engrave or stamp on stainless steel and fastened to the equipment in an accessible location with stainless steel screws or drive pins.
- B. Lifting Eyes: Provide on all equipment weighing over 80 lbs.

## 2.4 ANCHOR BOLTS

- A. Size anchor bolts and concrete anchors for equipment in accordance with Section 05 50 01.

## 2.5 SPECIAL TOOLS AND ACCESSORIES

- A. Furnish with each piece of equipment all tools, instruments, or accessories of a special nature that are required to assemble, disassemble, maintain, or repair any item of equipment.
  - 1. Tag and mark each piece indicating their service and the piece of equipment for which their use is intended.
  - 2. Include a list and description or pictorial representation of all special tools required for a given piece of equipment for insertion into the equipment operation and maintenance manual.

## 2.6 FASTENERS AND DIELECTRIC ISOLATION

- A. Fasteners for Aluminum: Stainless steel.
- B. Isolate steel surfaces, other than stainless steel, from aluminum with stainless steel, neoprene, non-metallic washers or other acceptable material.
- C. Dissimilar Metals: Protect from galvanic corrosion by means of pressure tapes, coatings and isolators.

# **PART 3 - EXECUTION**

## 3.1 INSTALLATION

- A. Install, align and test each item of equipment within the tolerances recommended by the equipment manufacturer.
- B. When specified in individual Sections, install and test equipment under the direction of installation engineers who have been factory trained by the equipment manufacturer.
- C. Perform all work in accordance with manufacturer's recommendations.

### 3.2 QUALITY CONTROL

- A. Test equipment in accordance with Section 01 75 17 and the individual equipment Section.
- B. Furnish written certification from the equipment manufacturers that each item has been installed, aligned, and tested correctly and that the installation meets the manufacturer's requirements for efficient, trouble-free operation. Utilize Manufacturer's Installation Certification form provided in Section 01 75 17.
- C. Equipment manufacturer's certification shall not be construed as relieving the Contractor of his overall responsibility for this portion of the work.

**END OF SECTION**

***(THIS PAGE LEFT BLANK INTENTIONALLY)***

**SECTION 11 05 20**  
**EQUIPMENT MOUNTING**

**PART 1 - GENERAL**

1.1 SECTION INCLUDES

- A. Equipment mounting requirements, including fabricated steel equipment bases, concrete equipment pads, supports, anchorage, and accessories.

1.2 REFERENCED SECTIONS

- A. The following Sections are referenced in this Section
  - 1. Section 01 33 00 – Submittals
  - 2. Section 05 50 01 – Anchor Bolts and Anchoring Devices

1.3 QUALITY ASSURANCE

- A. Provide supports, anchorage, and equipment mounts that are sized and designed to resist the calculated forces and that are in accordance with the manufacturer's recommendations, the current Uniform Building Code (UBC), and industry standards requirements.

1.4 DESIGN REQUIREMENTS

- A. Design equipment mounts and anchorages to resist the minimum lateral force required by the latest edition of the UBC, the manufacturer of the equipment, or a lateral seismic force of 60% of the operating weight of the equipment, whichever is greater.
- B. Equipment anchor bolt sizes shown on the Drawings are the minimum required size.
- C. Equipment anchorage design and calculations shall be prepared and signed by a civil or structural engineer currently registered in the state where equipment is installed.

1.5 MOUNTING REQUIREMENTS

- A. Mount equipment and driver on a common fabricated steel baseplate with ample rigidity to support equipment and maintain shaft alignment without excessive deflection.
- B. Mount equipment baseplates on concrete equipment pads.

1.6 SUBMITTALS

- A. Comply with Section 01 33 00.

- B. Shop Drawings: Provide drawings of equipment bases and anchorage details.
- C. Anchorage Calculations: Submit stamped and signed anchor bolt sizing calculations.

## **PART 2 - PRODUCTS**

### **2.1 ANCHOR BOLTS AND CONCRETE ANCHORS**

- A. Provide anchor bolts and concrete anchors in accordance with Section 05 50 01.

### **2.2 CONCRETE EQUIPMENT PADS**

- A. Construct concrete pedestals at least 6 inches wider and longer than the steel or cast base so that the distance between the anchor bolts and the edge of concrete is at least 3 inches.
- B. Unless otherwise shown or specified, all conduits, piping connections, drains, etc. shall be enclosed by the concrete base.
- C. Shape concrete pedestals to drain away from the base.
- D. Allow concrete to cure 14 days or until the concrete has cured to 75 percent of its specified compressive strength before placing equipment on the concrete pedestal.
- E. Do not start equipment placed on the concrete pedestal until the concrete has cured for 28 days or to 100 percent of its specified compressive strength.

### **2.3 STRUCTURAL STEEL EQUIPMENT BASES**

- A. Provide structural steel bases with thickened steel pads for doweling.
  - 1. Fabricate equipment base using continuous welds to seal seams and contact edges between steel members.
  - 2. Grind welds smooth.
- B. Design equipment bases with perimeter steel beams, intermediate stiffeners and baseplate.
  - 1. Provide perimeter steel beams with minimum depth equal to 1/10th of the longest dimension of the base.
  - 2. Beam depth need not exceed 14 inches provided that the baseplate deflection is kept within acceptable limits to minimize misalignment, as determined by the manufacturer.
- C. Provide grout holes for the bases of equipment where vibration isolation is not specified.
- D. Provide minimum 1-inch thick steel mounting baseplate for equipment with drivers 20 horsepower and larger.

## **PART 3 - EXECUTION**

### **3.1 GENERAL**

- A. Connect piping to equipment with flexible connections and/or expansion joints such that the intended uses of these joints is maintained in the piping system.
- B. Coordinate the location of electrical conduit and piping penetrations within the concrete pad and equipment base.
  - 1. Stub-up penetrations on the same side of the equipment as required for connection to the equipment.
  - 2. Locate equipment drains for proper drainage away from equipment.

### **3.2 EQUIPMENT MOUNTING**

- A. Mount equipment on equipment baseplates using stainless steel shims so that equipment and driver are level in both directions and mounted within machined areas on baseplate. Do not use wedges to obtain level and alignment.
- B. Utilize templates for placement of anchor bolts prior to placing concrete for equipment pad.
- C. Apply a non-seize or non-galling compound on the threads of anchor bolts and concrete anchors.

### **3.3 SHAFT ALIGNMENT**

- A. After the complete unit has been installed on the equipment pad and leveled, check the factory shaft alignment by disassembling coupling and measuring angular and parallel orientations.
- B. Use reverse-indicator dial or laser type alignment equipment to align shafts to within the manufacturer's required tolerance. Allow for thermal expansion, spacer coupling length and other factors that affect proper shaft alignment.

### **3.4 GROUTING EQUIPMENT BASES**

- A. After alignment has been completed, tighten anchor bolts and grout between equipment base and equipment pad. Use non-shrink and non-ferrous grout no less than 7/8 inch and no more than 1 5/8 inches thick.
- B. Allow 48 hours for grout to harden and then remove jacking screws. Re-check torque on anchor bolts and re-check shaft alignment, making corrections as necessary.

**END OF SECTION**

***(THIS PAGE LEFT BLANK INTENTIONALLY)***



## SECTION 40 05 51

### GENERAL REQUIREMENTS FOR VALVES

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. Requirements for valves.

##### 1.2 REFERENCED SECTIONS

- A. The following Sections are referenced in this Section:
  - 1. Section 01 33 00 – Submittals

##### 1.3 REFERENCED SPECIFICATIONS

- A. Conform to the requirements of the City Standard Specifications as modified herein.

##### 1.4 SUBMITTALS

- A. Comply with Section 01 33 00.

##### 1.5 DEFINITIONS

- A. Responsible Manufacturer: Manufacturer or manufacturer's representative who will ensure satisfactory performance of equipment.
- B. Valve: Device for mechanically regulating pipeline or open-channel flow.
- C. Actuator: Devices added to obtain mechanical advantage or power assist in operation.

##### 1.6 RESPONSIBLE MANUFACTURER

- A. Furnish, adjust, test, and ensure satisfactory performance of each valve.
- B. Provide any field adjustments, settings, and tests required for satisfactory performance of each valve at no additional cost to Owner.

##### 1.7 QUALITY ASSURANCE

- A. Unless specified otherwise, factory test each valve body with a test pressure equal to twice the listed working pressure rating.
- B. Submit a certified copy of the pressure test reports for all valves over 12 inches in nominal size prior to shipping valves to the Site. Format these test reports per the requirements of the applicable reference standards.
- C. Storage and Preparation for Installation

1. Package and store valves to prevent exposure to sunlight, chemical exposure, and atmospheric pollution.
2. Inspect each valve prior to installation for damage. Repair any damage to seats, machined surfaces, or protective coatings before installation. Clean each valve to remove any dirt and debris from the interior surfaces and seat areas. Install valves in the closed position.
3. Some valves must be installed with seats or seat adjustment rings on the downstream side of the valve. Determine these requirements prior to installation and install the valve in the correct orientation.

## **PART 2 - PRODUCTS**

### **2.1 GENERAL**

- A. Provide valves, gates, actuators, stem extensions, and other accessories as indicated on the Drawings or specified. All valves shall be new and of current design. For valves of the same type, provide identical valves supplied by a single manufacturer.
- B. Provide valves and actuators with the name of the manufacturer, nominal size, flow direction arrow, design working pressure, and the reference standard cast in raised letters or indelibly marked on an appropriate part of the body.
- C. Provide valves and actuators designed for submerged service for the following locations
  1. Located outdoors
  2. Within a building below the adjacent finished grade
  3. In vaults
  4. Where otherwise indicated. All other units shall be weather-tight and suitable for outdoor service.
- D. Provide buried valves with valve boxes and covers where indicated.
- E. Unless otherwise specified, all interior bronze parts of valves shall conform to the requirements of ASTM B 62.
- F. All wetted parts shall be lead-free as defined by California AB1953, California Prop-65, or the most stringent of current regulations.

### **2.2 PROTECTIVE COATINGS**

- A. Coat ferrous surfaces in water passages of all valves of size 2 inches and larger and exterior surfaces of valves and actuators, with epoxy per AWWA C550, unless otherwise specified in the valve specification.
  1. Interior Surfaces:
    - a. Minimum dry film thickness: 8 mil
    - b. NSF/ANSI 61 approved.

2. Exterior Surfaces:
  - a. Above ground:
    - 1) Minimum dry film thickness: 8 mil
  - b. Buried, submerged or in below ground vaults:
    - 1) Minimum dry film thickness: 12 mil
- B. Do not coat flange faces or bronze and stainless steel surfaces in water passages.
- C. Coat exterior bronze and stainless steel surfaces using the same system as the associated piping.
- D. Provide holiday-free protective coatings.

### 2.3 VALVE ACTUATORS

- A. Assemble valve actuators to the valve, adjust, and test the completed unit by Responsible Manufacturer prior to shipment to the Site.

## PART 3 - EXECUTION

### 3.1 VALVE INSTALLATION

- A. Install valves per the manufacturer's written instructions and as indicated on the Drawings and specified.
- B. Fit, support and brace gates to prevent warping, binding, and bending under all operating conditions. Accurately position and support embedded parts cast into concrete during concrete placement.
- C. Assembly of Valves and Piping
  1. Install valves with piping prior to the assembled piping or attached supports being cast into concrete or attached to supports.
  2. Sequence construction and operations so that the adjacent piping supports the valves, and so that the valves do not support the piping. Where permanent supports are located at valves, install the supports after the piping and valves have been installed as a completed assembly on temporary supports.
  3. Install piping and valve assemblies so that the piping does not exert forces on the valves from settlement or assembly operations.
  4. Correct piping alignment deviations before the valve is joined to the piping.
  5. Unless shown otherwise, install butterfly, plug, and ball valves with the shafts in the horizontal position.
  6. Install gates, gate valves, and other types of valves with the stems in the vertical position.
  7. For manually operated valves 3 inches in nominal size and smaller, orient the valve operators and indicators to be visible to the operator.

- D. Install floor boxes, valve boxes, extension stems, and floor stands vertically centered over the operating nut, with couplings as required. Adjust the elevation of the box top to conform with the elevation of the finished floor, grade, or pavement at the completion of the Work. Support boxes and stem guides during concrete placement to maintain vertical alignment and proper orientation.

### 3.2 TESTING

- A. Pressure test valves as part of the pipeline testing. Demonstrate valve operation (open/close) after the valve is installed including valve box and riser, as appropriate.
- B. Owner may conduct holiday test following installation.

**END OF SECTION**

## SECTION 40 05 58

### VALVES AND APPURTENANCES

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. Miscellaneous valves and accessories for water and chlorine solution service.

##### 1.2 REFERENCED SECTIONS

- A. The following Sections are referenced in this Section
  - 1. Section 01 33 00 – Submittals

##### 1.3 SUBMITTALS

- A. Comply with Section 01 33 00
- B. Submittals shall demonstrate full compliance with all aspects of this specification.

#### PART 2 - PRODUCTS

##### 2.1 GENERAL

- A. Valves shall be furnished full line size unless specifically called out to be of reduced size. Unless otherwise specified, valves shall be rated for 150 psi working pressure minimum.
- B. All valves shall be complete with all necessary operating hand wheels, chain wheels, extension stems, valve boxes, floor stands, worm and gear operators, operating nuts, chains, hardware and fasteners, and wrenches which are required for the proper completion of the work included under this section.
- C. Operating torque to operate any valve shall not exceed 40 ft-lb.
- D. Unless otherwise indicated, the direction of rotation of the wheel, wrench nut or lever to open the valve shall be counterclockwise.
- E. Each valve body or operator shall have cast thereon the word "OPEN" and an arrow indicating the direction to open.
- F. Actual length of valves shall be within 1/16 inch (plus or minus) of the specified or catalog length except where installed adjacent to flexible or mechanical pipe couplings, where different lengths of a replacement can be accommodated.
- G. Flanges shall meet the requirements of ANSI B16.

H. Materials of like kind shall be the product of one manufacturer.

## 2.2 BALL VALVES

- A. Unless otherwise indicated or specified, all 2-1/2-inch and smaller shutoff valves shall be true union SS316 ball valve, Teflon seats, and hand level operators.
- B. Valves shall be rated not less than 500 psi non-shock cold WOG and shall be drip tight in both directions.

## PART 3 - EXECUTION

### 3.1 PLACING

- A. Valves shall be installed in accordance with the manufacturer's recommendations.
- B. Valves installed in vertical runs of pipe shall have their operating stems oriented to facilitate the most practicable operation, as approved by the Engineer.

### 3.2 ANCHOR BOLTS

- A. Anchor bolts, nuts, and washers shall be Type 316 stainless steel
- B. Threads shall be protected and shall be cleaned before the nuts are attached and tightened.

### 3.3 TESTING

- A. Valves shall be tested at the same time that the adjacent pipeline is tested. Joints shall show no visible leakage under test.
  - 1. Joints that show signs of leakage shall be repaired prior to final acceptance.
  - 2. If there are any special parts of control systems or operators that might be damaged by the pipeline test, they shall be properly protected.
  - 3. The Contractor shall be held responsible for any damage caused by the testing.
- B. If requested by the City, the valve manufacturer shall furnish an affidavit stating the materials options furnished, and/or that these and other referenced specifications have been complied with.

### 3.4 CORROSION CONTROL

- A. Exposed valves shall be painted in accordance with Section 09 96 00.

## END OF SECTION

## SECTION 40 23 00

### PIPING SYSTEMS

#### PART 1 – GENERAL

##### 1.1 SECTION INCLUDES

- A. Work necessary to furnish, install, and test all piping systems as shown on the Plans and as specified herein.

##### 1.2 REFERENCED SECTIONS

- A. The following Sections are referenced in this Section
  - 1. Section 01 33 00 – Submittals

##### 1.3 SUBMITTALS

- A. Comply with Section 01 33 00
- B. Submittals shall demonstrate full compliance with all aspects of this specification.

#### PART 2 - PRODUCTS

##### 2.1 GENERAL

- A. All piping materials of like kind shall be the product of one manufacturer.
- B. The Contractor is responsible for furnishing and installing all items necessary to make a complete and workable piping system. This includes, but is not limited to, valves, insulating coupling and gaskets, piping specialties, and all other items required by the nature of the installation. Any item not specified herein but required by the installation shall be of first quality, equal in grade to similar materials specified herein, and shall comply with all applicable standards.
- C. All pipes shall be Schedule 40, grooved-end, stainless steel 316, unless otherwise shown on the plans. Threaded end pipes are allowed for pipes with a diameter of 2 ½” or less. Grooved end pipes shall be joined by mechanical pipe couplings. Mechanical pipe couplings shall be self-centering and shall engage and lock in place the grooved pipe and pipe fittings ends in a positive watertight couple. Couplings shall be the rigid grooved type for radius grooved pipe. Coupling assembly shall be securely held together by two or more stainless steel 316 bolts and nuts. Coupling shall hold in place a composition water-sealing gasket designed so that internal water pressure serves to increase the seal’s water tightness.
- D. All piping shall be supported against sag, lateral and vertical movement in a manner which will prevent undue strain on any valve, fitting, pipe or piece of equipment. Existing pipe supports shall be utilized. If necessary, provide additional supports or make modifications to the existing pipe supports to provide a proper support for the piping.

## **PART 3 – EXECUTION**

### **3.1 PREPARATION AND HANDLING OF PIPE**

- A. Each pipe and fitting shall be carefully inspected before installation. Clean ends of pipe thoroughly. Remove foreign matter and dirt from inside of pipe and keep clean during and after laying.
- B. Use proper implements, tools, and facilities for the safe and proper protection of pipe. Carefully handle pipe in such a manner as to avoid any physical damage.

### **3.1 INSTALLATION**

- A. All pipes shall be carefully placed and properly supported. Piping runs shall follow the existing alignment.
- B. Fittings shall be same schedule and material as the pipe.
- C. Mechanical joint shall have flanges where necessary for valves and cleanout connections.

### **3.2 PIPE CLEANING AND TESTING**

- A. Provide necessary utilities, labor, and facilities for testing; and dispose of all waste, including water. Tests shall be conducted in the presence of the Engineer.
- B. The interior of pipelines shall be thoroughly cleaned of debris prior to testing and prior to connection of pipe to existing infrastructure.
- C. Perform a leakage test for a minimum of 2 hours. Visually inspect pipe joints, joints at fittings, valves, and other piping appurtenances for leaks. Correct leakage as necessary to eliminate the leakage. There shall be zero leakage.

**END OF SECTION**



## SECTION 46 41 33

### HORIZONTAL FLOCCULATION EQUIPMENT

#### PART 1 - GENERAL

##### 1.1. WORK OF THIS SECTION

- A. Scope: The City will furnish to the contractor certain equipment for the horizontal flocculation equipment. See Bill of Materials.
- B. Contractor shall provide all labor, materials, equipment, installation and assembly, hardware, supports and appurtenances required to furnish, install and place in satisfactory operation the horizontal flocculation equipment as shown on the Drawings and as specified herein.

#### PART 2 – PRODUCTS

##### 2.1 ACCEPTABLE MANUFACTURERS

- A. **Envirex Inc.**, Evoqua Water Technologies.
- B. No other suppliers will be considered.

#### PART 3 - EXECUTION

##### 3.1 INSTALLATION

- A. The Contractor shall install the flocculation equipment in strict accordance with the manufacturer's drawings and recommendations.
- B. The shaft shall be aligned within 0.032" between bearing and within 0.065" over the entire shaft length.
- C. Anti-seize thread lubricant, which is NSF-61 approved, shall be applied to the male threads of all stainless steel bolts at the time of the assembly.
- D. All field assembly bolts and anchor bolts, nuts, and washers shall be Type 316 stainless steel. Exposed bolt ends shall not exceed a length of two threads beyond the nut. Mounting hardware shall be supplied by the contractor and coordinated with the requirements of the manufacturer.
- E. Existing Variable Frequency Drives shall be utilized.

### 3.2 MANUFACTURER'S SERVICES

- A. Manufacturer's Field Services: The CONTRACTOR shall provide the following services in addition to any other services specified herein, and required by these Specifications.
1. A factory trained manufacturer's representative shall be provided for a minimum of two (2) trips and a minimum of three (3) eight hour days to provide installation supervision, start-up and field testing services, and O&M training services. The installation services shall be coordinated between the CONTRACTOR and the manufacturer. The start-up and field testing services, and the O&M services shall be coordinated with the ENGINEER.
  2. After installation supervision and field testing services by the manufacturer, the CONTRACTOR shall submit to the ENGINEER, a certification letter on the manufacturer's letterhead and signed by the manufacturer certifying that the equipment was installed per the manufacturer's recommendations.
  3. The manufacturer shall provide start-up reports covering both dry and wet start up activities. These reports shall include system voltage and amperage readings at 20% and 100% speed.
  4. The manufacturer shall provide operator training to all required plant personnel.
- B. All costs, including travel, lodging, meals and incidentals for manufacturer service shall be included in the CONTRACTOR'S bid

**END OF SECTION**

## SECTION 46 43 11

### CHAIN AND FLIGHT CLARIFIER EQUIPMENT

#### PART 1 - GENERAL

##### 1.1 SCOPE OF WORK

- A. The City will furnish to the contractor certain equipment for the two (2) basins with the following total mechanisms:
  - 1. Four (4) Longitudinal Collector mechanism(s) approximately 112 feet long x 18 feet wide x 17.4 feet deep AWD, 3-shaft system.
  - 2. Two (2) Cross Collector mechanism(s) approximately 28 feet long x 5 feet wide x 17.4 feet deep AWD, 3-shaft system.
- B. See Bill of Materials.
- C. Contractor shall provide all labor, materials, equipment, installation and assembly, hardware, supports and appurtenances required to furnish, install and place in satisfactory operation the chain and flight system for the rectangular clarifiers as shown on the Drawings and as specified herein.

#### PART 2 - PRODUCTS

##### 2.1 ACCEPTABLE MANUFACTURERS

- A. **Polychem Systems™**, a Brentwood Brand, of Reading, PA.
- B. No other suppliers will be accepted.

#### PART 3 - EXECUTION

##### 3.1 INSTALLATION

- A. Install all equipment in accordance with the manufacturer's instructions, recommendations, and approved shop drawings.

##### 3.2 MANUFACTURER'S SERVICES

- A. Furnish the services of a qualified manufacturer's representative to inspect the complete installation, make any necessary adjustments, participate in the startup and field testing of equipment, and place into operation.
- B. Furnish the services of a qualified manufacturer's representative to instruct plant personnel in the operation and maintenance of equipment.

- C. The following manufacturer's service shall be provided.
  - 1. One (1) trip for two (2) eight hour days for each basin.
  - 2. One (1) trip for one (1) eight hour day for operator training in operation and maintenance of the systems.
  
- D. All costs, including travel, lodging, meals and incidentals for manufacturer service shall be included in the CONTRACTOR'S bid

**END OF SECTION**